

Mieyal Paul A  
 Form 4  
 March 28, 2011

**FORM 4**

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
 Washington, D.C. 20549**

OMB APPROVAL

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**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
 Mieyal Paul A

2. Issuer Name and Ticker or Trading Symbol  
 NEPHROS INC [NEPH.OB]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)  
 C/O WEXFORD CAPITAL LP, 411 WEST PUTNAM AVENUE

3. Date of Earliest Transaction (Month/Day/Year)  
 03/24/2011

Director  10% Owner  
 Officer (give title below)  Other (specify below)  
 Acting Chief Executive Officer

(Street)  
 GREENWICH, CT 06830

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)  
 Form filed by One Reporting Person  
 Form filed by More than One Reporting Person

(City) (State) (Zip)

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership Indirect Beneficial Ownership (Instr. 4)
				(A) or (D)	Code V Amount (D) Price		

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474 (9-02)

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)**

1. Title of Derivative Security	2. Conversion or Exercise	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any	4. Transaction Code	5. Number of Derivative Securities	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Security (Instr. 3 and 4)
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(Instr. 3)	Price of Derivative Security	(Month/Day/Year)	(Instr. 8)	Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares
Non-qualified stock option (right to buy)	\$ 0.51	03/24/2011			A		32,000		<u>(1)</u>	03/24/2021	Common Stock	32,000
Non-qualified stock option (right to buy)	\$ 19 <u>(2)</u>								<u>(3)</u>	01/08/2020	Common Stock	1,000 <u>(2)</u>
Non-qualified stock option (right to buy)	\$ 16 <u>(2)</u>								<u>(4)</u>	11/30/2017	Common Stock	750

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Mieyal Paul A C/O WEXFORD CAPITAL LP 411 WEST PUTNAM AVENUE GREENWICH, CT 06830	X		Acting Chief Executive Officer	

## Signatures

/s/ Paul A.  
Mieyal

03/28/2011

\*\*Signature of  
Reporting Person

Date

## Explanation of Responses:

\* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

On March 24, 2011, the Company granted an option to purchase 32,000 shares of common stock of the Company (the "Option") in respect of the service by Mr. Mieyal as a member of the Board of Directors of the Company. The Option was granted under the

(1) Company's 2004 Stock Incentive Plan. At the request of Mr. Mieyal, the Option was granted to Wexford Capital LP. The Option vested immediately with respect to 12,800 shares on March 24, 2011. The remainder of the Option vests in annual installments of 6,400 shares on each of the first, second and third anniversary of the grant date.

(2) Reflects a twenty-for-one stock split effected on March 11, 2011.

On January 8, 2010, the Company granted an option to purchase 20,000 shares of common stock of the Company (the "Option") in respect of the service by Mr. Mieyal as a member of the Board of Directors of the Company. The Option was granted under the

(3) Company's 2004 Stock Incentive Plan. At the request of Mr. Mieyal, the Option was granted to Wexford Capital LP. The Option vested immediately with respect to 6,667 shares on January 8, 2010. The remainder of the Option vests in annual installments of 6,667 shares on the first anniversary of the grant date, and 6,666 shares on the second anniversary of the grant date.

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- (4) On November 30, 2007, the Company granted an option to purchase 15,000 shares of common stock of the Company (the "Option") in respect of the service by Mr. Mieyal as a member of the Board of Directors of the Company. The Option was granted under the Company's 2004 Stock Incentive Plan. At the request of Mr. Mieyal, the Option was granted to Wexford Capital LP. The Option has vested with respect to all of the shares.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number. \$4.35

On April 2, 2004, there were approximately 79 stockholders of record. On April 2, 2004, the reported last sale price for our common stock on the Nasdaq National Market was \$5.14 per share. Investors should obtain current market quotations before making any decision with respect to an investment in our securities.

### DIVIDEND POLICY

We have not declared or paid any dividends on our common stock since our inception and do not intend to pay any dividends on our common stock in the foreseeable future. We currently intend to retain available funds for use in our business. Any determination to pay dividends in the future will be at the discretion of our board of directors and will depend upon, among other things, our financial condition, results of operations and capital requirements. The terms of some of our outstanding indebtedness prohibit us from paying cash dividends.

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### CAPITALIZATION

The following table sets forth our capitalization as of December 31, 2003:

on an actual basis; and

as adjusted to reflect the sale of 3,000,000 shares of our common stock in this offering, at an assumed public offering price of \$5.14 per share and our receipt and application of the estimated net proceeds from the offering, after deducting underwriting discounts and commissions and the estimated offering expenses.

You should read this table in conjunction with the financial statements and schedule incorporated by reference in this prospectus and the other financial information and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus.

	As of December 31, 2003	
	Actual	As Adjusted
Cash, cash equivalents and short-term investments	\$ 76,837	\$ 91,279
Short-term and long-term obligations	\$ 44,961	\$ 44,961
Shareholders' equity:		
Common stock, \$0.01 par value, 150,000,000 shares authorized; 86,462,791 and 86,005,591 shares issued and outstanding, respectively, actual; and 89,005,591 shares issued and outstanding, as adjusted	\$ 865	\$ 890

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	<u>As of December 31, 2003</u>	
Additional paid-in capital	201,781	213,866
Accumulated deficit	(14,359)	(14,359)
Treasury stock, at cost; 457,200 shares, actual; and no shares, as adjusted	(2,332)	0
Accumulated other comprehensive income	16,471	16,471
	<u>202,426</u>	<u>216,868</u>
Total shareholders' equity	202,426	216,868
	<u>\$ 247,387</u>	<u>\$ 261,829</u>
Total capitalization	\$ 247,387	\$ 261,829

The table above does not include:

3,095,002 shares of common stock issuable upon exercise of options outstanding at a weighted average exercise price of \$6.77 at December 31, 2003; and

3,160,730 additional shares of common stock available for future grant under our Amended and Restated 2000 Stock Option Plan at December 31, 2003.

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**DILUTION**

Our net tangible book value as of December 31, 2003 was approximately \$189.8 million, or \$2.21 per share. Net tangible book value per share represents our total tangible assets less our total liabilities, divided by the aggregate number of shares of our common stock outstanding. Dilution per share to new investors represents the difference between the amount per share paid by the new investors in this offering and the net tangible book value per share of our common stock immediately after completion of this offering. After giving effect to the sale of the 3,000,000 shares of our common stock offered by us in this offering and after deducting the estimated underwriting discounts and commissions and the estimated offering expenses payable by us, our net tangible book value at December 31, 2003 would have been approximately \$204.2 million or \$2.29 per share. This represents an immediate increase in net tangible book value per share of \$0.08 to existing stockholders and an immediate dilution of \$2.85 per share to new investors. The following table illustrates this per share dilution to new investors.

Assumed public offering per share	\$ 5.14
Net tangible book value per share as of December 31, 2003	\$ 2.21
Increase in net tangible book value per share attributable to new investors	0.08
	<u>2.29</u>
Net tangible book value per share after this offering	2.29
Dilution per share to new investors	\$ 2.85

These calculations assume no exercise of the underwriters' over-allotment option and does not take into effect further dilution to new investors that could occur upon the exercise of outstanding options having a per share exercise price less than the offering price per share in this offering. As of December 31, 2003, there were:

3,095,002 shares of our common stock outstanding, at a weighted average exercise price of \$6.77 per share; and

3,160,730 additional shares of common stock available for future grant under our Amended and Restated 2000 Stock Option Plan.

### SELECTED FINANCIAL DATA

On July 1, 2003, we merged with Bruker AXS, a company under common control, and we were the surviving corporation in that merger. We then formed two operating subsidiaries, Bruker Daltonics and Bruker AXS, into which we transferred substantially all of the assets and liabilities, except cash, which formerly belonged to us and Bruker AXS. See Note 5 to the audited financial statements incorporated by reference in this prospectus. The consolidated statements of operations data for each of the years ended December 31, 2001, 2002 and 2003 and the consolidated balance sheet data as of December 31, 2003 has been derived from our audited financial statements incorporated by reference in this prospectus and reflect the consolidation of the historical financial results of us and Bruker AXS. The combined statement of operations data for the year ended December 31, 2000 has been derived by combining amounts from Bruker Daltonics' and Bruker AXS' historical audited financial statements included in each company's Annual Report on Form 10-K for the fiscal year ended December 31, 2002. The statement of operations data for the year ended December 31, 1999 has been derived by combining amounts from Bruker Daltonics' historical audited financial statements included in the company's Annual Report on Form 10-K for the fiscal year ended December 31, 2001 and Bruker AXS' unaudited financial statements for the year ended December 31, 1999. Through and including September 30, 1999, Bruker AXS' fiscal year ended on September 30. The unaudited financial statements for Bruker AXS for the twelve-month period ended December 31, 1999 were derived by adding the audited financial statements for the three-month period ending December 31, 1999 and the audited twelve-month financial statements ending September 30, 1999, included in the company's Annual Report on Form 10-K for the fiscal year ended December 31, 2001, and subtracting the unaudited three-month period ending December 31, 1998. Historical results are not necessarily indicative of future results. The data presented below has been derived from financial statements that have been prepared in accordance with accounting principles generally accepted in the United States and should be read in conjunction with the consolidated financial statements and schedule, including the notes, incorporated by reference in this prospectus and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus.

	Years Ended December 31,				
	1999	2000	2001	2002	2003
	(dollars in thousands, except per share data)				
<b>Combined/Consolidated Statement of Operations Data:</b>					
Product revenue	\$ 120,780	\$ 142,877	\$ 174,353	\$ 220,440	\$ 259,381
Other revenue	4,070	1,830	926	218	1,298
Net revenue	124,850	144,707	175,279	220,658	260,679
Total costs and operating expenses	121,067	141,870	173,905	215,012	270,360
Operating income (loss)	3,783	2,837	1,374	5,646	(9,681)
Income (loss) before cumulative effect of change in accounting principle, net of tax	1,439	2,795	2,687	(6,185)	(17,554)
Net income (loss) available to common shareholders	1,439	2,795	(3,338)	(6,802)	(17,554)
Net income (loss) per share available to common shareholders	\$ 0.02	\$ 0.04	\$ (0.05)	\$ (0.09)	\$ (0.22)
Shares used in computing net income (loss) per share basic	59,904	63,673	70,360	77,483	81,280
Shares used in computing net income (loss) per share diluted	59,904	64,353	70,360	77,483	81,280

#### As of December 31, 2003

	Actual	As Adjusted(1)
<b>Combined/Consolidated Balance Sheet Data:</b>		
Cash, cash equivalents and short-term investments	\$ 76,837	\$ 91,279
Working capital	142,025	156,467
Total assets	351,031	365,473
Total debt	44,961	44,961
Other long-term liabilities	13,507	13,507

As of December 31, 2003

Total shareholders' equity	202,426	216,868
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- (1) As adjusted to give effect to our receipt of \$14.4 million from our sale of 3,000,000 shares of common stock in this offering at an assumed public offering price per share of \$5.14, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

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## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*You should read the following discussion and analysis of our financial condition and results of operations together with "Selected Financial Data" and our financial statements and schedule and related notes included or incorporated by reference in this prospectus. This discussion and analysis may contain forward-looking statements that involve risks, uncertainties and assumptions. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of many factors, including those set forth under "Risk Factors" and elsewhere in this prospectus.*

### OVERVIEW

#### *Bruker BioSciences*

We are the parent company of Bruker Daltonics Inc. and Bruker AXS Inc. Bruker Daltonics is a leading developer and provider of innovative life science tools based on mass spectrometry. Bruker AXS is a leading developer and provider of life science and advanced materials research tools based on X-ray technology. In July 2003, we merged with Bruker AXS Inc., a company under common control, and we were the surviving corporation in that merger.

As a result of the merger we believe we can enhance our leading position as a tools provider in the proteomics marketplace. We are attempting to cross-sell our life science mass spectrometry and X-ray products in order to generate incremental revenues. In addition, we are eliminating redundant public company costs and we expect to reduce other costs through streamlining our support functions. The merger also allowed us to consolidate some of our global production sites as we strive to improve our profitability. Our business strategy includes focusing on innovative product and solution development, while gradually expanding our global distribution and customer support capability.

The merger also created potential challenges and risks for us. Although affiliates, we and Bruker AXS have historically operated our businesses autonomously. We are currently working to integrate select corporate functions and to facilitate communication and cooperation. However, we are not attempting to consolidate research and development, marketing and sales, or production and service of the two operating companies, as we believe that this could be detrimental to both operating companies. In addition, we cannot be certain that we will be able to coordinate previously autonomous departments in accounting, finance, and administrative functions. We must endeavor to expand and integrate certain information and management systems. In addition, the integration process itself could cause disruption in our business. If we are not successful in the integration process, we may not be able to realize all of the cost savings and benefits that were expected to result from the merger.

#### *Bruker Daltonics*

The performance of our Bruker Daltonics business is driven by its product lines in life science mass spectrometry and NBC detection. In 2003, Bruker Daltonics continued to gain momentum in life science mass spectrometry, as many of our earlier product introductions drove continued revenue and market share growth. Our MALDI-TOF/TOF systems continued to do well, as did our new high-capacity ion trap and our unique hybrid Q-q-FTMS. We also experienced favorable customer reception for our new benchtop ESI-TOF system, as well as for our ClinProt solution for biomarker discovery and clinical proteomics. We expect to continue our growth in life-science mass spectrometry in 2004.

The positive trends in Bruker Daltonics' sales in 2003 were partially offset by soft sales in NBC detection systems. NBC detection systems are heavily dependent upon large contracts with government agencies. During 2002, Bruker Daltonics recognized revenue on a large contract with the U.S. Army. This contract was not replaced in 2003 with a similar-sized contract and thus, NBC detection sales

declined in 2003. We did, however, see improvement in our NBC detection new order booking during 2003 and expect improvement in NBC detection in 2004.

#### *Bruker AXS*

The performance of our Bruker AXS business is driven by its product lines in SCD, XRD, XRF and thermal analyzers. Bruker AXS experienced softness in X-ray system sales in 2003 primarily due to softness in life science, or SCD, sales. Increased revenues for our elemental composition and thermal analyzer systems, as well as aftermarket sales, partially offset the decline in life science sales. In the second quarter of 2003, we introduced the MICROSTAR high brilliancy X-ray source in an effort to regain momentum in SCD.

Our core lines in XRD, or materials research, were relatively flat in 2003. In order to regain growth in this market, we introduced new D8 systems with integrated, high-power X-ray source technology originated from the MAC Science acquisition. Combined with our new VANTEC-1 X-ray detector technology, these new D8 Super Speed solutions provide higher speed and sensitivity compared to other available products in the market. We believe that these products will assist our growth throughout 2004.

The following discussion of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and schedules and the related notes to those statements incorporated by reference into this prospectus.

#### **Merger**

On April 4, 2003, we entered into a definitive merger agreement with Bruker AXS pursuant to which we acquired all of the outstanding shares of Bruker AXS. The merger was intended to form a leading tools supplier for life science and materials research, with an emphasis on advancing proteomics. The agreement was signed following the unanimous approval of the Board of Directors of each company as well as the unanimous recommendations of independent Special Committees of both companies' boards.

On June 27, 2003, the merger was approved by our shareholders and the shareholders of Bruker AXS, and on July 1, 2003, the merger was consummated. Upon consummation of the merger, each outstanding share of common stock of Bruker AXS was converted into the right to receive, at the election of the holder, either 0.63 of a share of our common stock or consideration intended to be of substantially equivalent value, payable 75% in our common stock and 25% in cash.

In connection with the merger, we formed two operating subsidiaries, Bruker Daltonics and Bruker AXS, into which we transferred substantially all of the assets and liabilities, except cash, which formerly belonged to us and Bruker AXS. As a result of the merger, we have two reportable operating segments: our subsidiaries Bruker Daltonics and Bruker AXS.

The merger represents a business combination of companies under common control due to the majority ownership of both companies by five related individuals as an affiliated shareholder group. As a result, the merger, as it relates to the shares of Bruker AXS owned by these affiliated shareholders (approximately 69%), was accounted for in a manner similar to a pooling-of-interest, or at historical carrying value. The acquisition of the shares of the non-affiliated shareholders (approximately 31%) was accounted for using the purchase method of accounting, or at fair value, in a manner similar to the acquisition of a minority interest. Any excess purchase price of the interest not under common control over the fair value of the related net assets was accounted for as goodwill.

The fair value of the consideration paid for the acquisition of the minority interest was \$38.1 million, including cash of \$5.4 million, common stock valued at \$28.5 million, stock options with a value of \$3.0 million and merger transaction costs of \$1.2 million. The value of the 9.66 million shares

of common stock issued to non-affiliated shareholders in connection with the merger was determined using the closing market price (\$2.95) of Bruker Daltonics' stock on the date the terms of the merger were agreed to and announced. The fair value of the stock options issued were determined using the Black-Scholes option pricing model.

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The purchase price for the 31% minority interest acquired has been allocated to the net assets acquired on a pro rata basis in accordance with SFAS No. 141, "Business Combinations." Accordingly, intangible assets acquired were allocated as follows: \$1.5 million to existing technology and related patents which have an estimated weighted-average useful life of four years, \$0.3 million to customer relationships which have a weighted-average useful life of five years and \$0.3 million to trade names which have a weighted-average useful life of ten years.

In addition, \$2.5 million of acquired intangible assets was assigned to in-process research and development projects (IPR&D) that were written off at the date of acquisition in accordance with FASB Interpretation No. 4, "Applicability of FASB Statement No. 2 to Business Combinations Accounted for by the Purchase Method." The write-off is included in other special charges on the Consolidated Statements of Operations.

The IPR&D projects included next generation high brilliancy optics and microsourses, new X-ray sources for X-ray diffraction and protein crystallography applications, high sensitivity area detector systems, and other solution-based technologies and software application projects. At the time of acquisition, these projects were at various stages of completion, ranging from 40-85%. These projects were expected to be completed during 2003 and 2004 at an estimated cost of \$1.1 million.

The following table provides information regarding the current status of IPR&D projects and actual costs incurred as of December 31, 2003 (dollars in thousands):

IPR&D Project	Estimated Cost to Complete as of July 1, 2003	Actual Costs Incurred as of December 31, 2003	Estimated Fair Value	Estimated Completion Date
X-ray sources	\$ 166	\$ 239	\$ 390	Q4 2003
Optics and microsourses	111		261	Q1 2004
Detector systems	696	468	1,636	Q1 2004
Other	83	35	195	Q2 2004
<b>Total</b>	<b>\$ 1,056</b>	<b>\$ 742</b>	<b>\$ 2,482</b>	

Although we believe these IPR&D projects, when completed, will provide value, we determined there was an absence of technology feasibility and alternative future use for this IPR&D at the time of acquisition. The value assigned to the IPR&D projects was determined using a discounted probable future cash flow analysis. Financial assumptions used to estimate the future cash flows were based on pricing, margins and expense levels from those historically realized by Bruker AXS. A discount rate of 45% was utilized to discount the net cash flows generated from the acquired in-process research and development. The estimates used in valuing the acquired in-process research and development were based upon assumptions believed to be reasonable but which are inherently uncertain and unpredictable and, as a result, actual results may differ from estimates.

There is minimal risk to us that these projects will not be completed in the timeframes noted above, as the most complex aspects of the projects have already been completed. Since each project will result in technologies that can be individually integrated into our system platforms, we will have greater flexibility in bringing each projects technology to the market.

In conjunction with the merger, we formulated a plan to consolidate some of our production and exit certain activities in our life science X-ray business. The production capacity for the life science systems produced at the Bruker Nonius facility in Delft, The Netherlands, has been outsourced or

absorbed within other facilities throughout the Company. As a result of the restructuring activities, we recorded approximately \$2.2 million in purchase accounting liabilities and reserves. Approximately \$1.5 million, or 69%, of the purchase accounting liabilities and reserves were charged to other special charges or cost of product revenue for inventory reserves and the remaining \$0.7 million, or 31%, was included in the allocation of the purchase price as goodwill. The purchase accounting liabilities and reserves included \$0.8 million of severance costs for approximately 19 employees, \$1.0 million as a reserve for inventory that will no longer be used in production and \$0.4 million of costs to upgrade X-ray systems that will no longer be produced and other miscellaneous restructuring costs. We anticipate that severance and other payments payable in connection with the plan will be made within the next 12 months.

Charges against the purchase accounting liabilities and reserves recorded in connection with these activities were as follows (in thousands):



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	Severance	Inventory	Customer Upgrades and Other	Total
Balance, July 1, 2003	\$ 765	\$ 1,023	\$ 370	\$ 2,158
Cash payment	(41)		(171)	(212)
Non-cash charge		(822)		(822)
Currency impact	78	23	10	111
<b>Balance, December 31, 2003</b>	<b>\$ 802</b>	<b>\$ 224</b>	<b>\$ 209</b>	<b>\$ 1,235</b>

In addition, we wrote-off the remaining balance of goodwill of \$1.5 million and trade names and trademarks of \$0.2 million associated with the Bruker Nonius entity because we do not believe that the future cash flows of the remaining Bruker Nonius business or its implied fair value exceeds the carrying amount of goodwill. Approximately \$1.2 million, or 69%, of the write-off of goodwill and trade names and trademarks was charged to other special charges and the remaining \$0.5 million, or 31%, was included in the allocation of the purchase price as goodwill.

### Restructuring Charges

Our subsidiary, Bruker AXS, implemented a restructuring program during the year ending December 31, 2002 in order to reduce costs and improve productivity by eliminating redundant positions, streamlining production and initiating cost reduction programs in all operating areas. As a result, we recorded a restructuring charge of approximately \$1,767,000 (\$1,043,000, net of tax) in the year ended December 31, 2002. In 2003, we recorded an additional restructuring charge of \$122,000. This charge included an increase in the workforce reduction accrual of \$294,000 related to additional costs associated with the early retirement program in Germany. This increase was offset by a reduction in the contractual obligations accrual of \$172,000 due to the fact that we renegotiated the penalties for terminating a contract for outsourced information technology services.

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The following table summarizes the restructuring charge activity and the balance of the restructuring accrual as of December 31, 2003 (in thousands):

	Workforce Reduction	Production Operations	Contractual Obligations	Engineering Inventory	Total
Balance, December 31, 2001					
New charges	\$ 458	\$ 699	\$ 465	\$ 145	\$ 1,767
Cash payments	(84)		(172)		(256)
Non-cash charges		(699)		(145)	(844)
Currency impact	16		20		36
Balance, December 31, 2002	390		313		703
Cash payments	(202)		(161)		(363)
Other	294		(172)		122
Currency impact	77		20		97
<b>Balance, December 31, 2003</b>	<b>\$ 559</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$ 559</b>

Due to the impact of certain German regulatory requirements applicable to the benefits for our German employees, the workforce reduction accrual will not be fully paid until 2008.

### Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations is based upon our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires that we make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of revenues and expenses during the reporting period. On an ongoing basis, we evaluate our estimates, including those related to allowance for doubtful accounts, inventories, long-lived assets, warranty costs, customer advances, pension plan, revenue recognition, income taxes, contingencies, and restructuring. We base our estimates on historical

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experience, current market and economic conditions, and other assumptions that we believe are reasonable. The results of these estimates form the basis for judgments about the carrying value of assets and liabilities where the values are not readily apparent from other sources. Actual results could differ from these estimates.

We believe the following critical accounting policies to be both those most important to the portrayal of our financial condition and those that require the most subjective judgment.

*Allowance for doubtful accounts.* We maintain allowances for doubtful accounts for estimated losses resulting from the inability of our customers to pay amounts due. If the financial condition of our customers were to deteriorate, reducing their ability to make payments, additional allowances would be required, resulting in a decrease in net income.

*Inventories.* Inventories are stated at the lower of cost or market, with cost determined by the first-in, first-out method. We maintain an allowance for excess and obsolete inventory to reflect the expected un-saleable or un-refundable inventory based on an evaluation of slow moving products. If ultimate usage or demand varies significantly from expected usage or demand, additional write-downs may be required, resulting in a decrease in net income.

*Goodwill, other intangible assets, investments in other companies, and other long-lived assets.* We periodically evaluate goodwill for impairment using market comparables for similar businesses or forecasts of discounted future cash flows. We also review other intangible assets, investments in other companies, and other long-lived assets when indication of potential impairment exists, such as a significant reduction in cash flows associated with the assets. Should the fair value of our

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long-lived assets decline because of reduced operating performance, market declines, or other indicators of impairment, charges for impairment may be necessary, resulting in a decrease in net income.

*Warranty costs.* We normally provide a one-year parts and labor warranty with the purchase of equipment. The anticipated cost for this one-year warranty is accrued upon recognition of the sale and is included as a current liability on the accompanying balance sheets. To the extent we experience increased warranty claim activity or increased costs associated with servicing those claims, the warranty accrual will increase, resulting in a decreased gross profit.

*Revenue recognition.* We recognize revenue from system sales, including hardware with embedded software, when a product is accepted by the customer. As such, revenue recognition is dependent on the timing of shipment and is subject to customer acceptance and readiness. If shipments are not made on scheduled timelines or the products are not accepted by the customer, our reported revenues may differ materially from expectations. When products are sold through an independent distributor, a strategic distribution partner or an unconsolidated affiliated distributor which assumes responsibility for installation, we recognize the system sale when the products are shipped and title has transferred to the distributor. Our distributors do not have price protection rights or rights to return; however, our products are warranted to be free from defect for a period of one year. Revenue from accessories and parts is recognized upon shipment, and revenue from services when performed.

*Income taxes.* We estimate the degree to which tax assets and loss carry-forwards will result in a benefit based on expected profitability by tax jurisdiction, and provide a valuation allowance for tax assets and loss carry-forwards that we believe will more likely than not go unused. If it becomes more likely than not that a tax asset or loss carry-forward will be used, we reverse the related valuation allowance. If our actual future taxable income by tax jurisdiction vary from estimates, additional allowances or reversals of reserves may be necessary.

*Contingencies.* We estimate losses on contingencies and provide a reserve for these losses when the losses are probable and estimable. Should the ultimate losses on contingencies and litigation vary from estimates, adjustments to those reserves may be required.

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*Restructuring.* We record restructuring reserves for severance, inventory obsolescence, contractual obligations and other restructuring costs based on estimates of each of these expenses. Should actual cash flows associated with restructuring costs vary from estimated amounts, adjustments may be required.

### RESULTS OF OPERATIONS

The following tables set forth certain items and discussions based on our results of operations for the three years ended December 31, 2003 (dollars in thousands).

*Year Ended December 31, 2003 Compared to Year Ended December 31, 2002*

#### *Net Revenue:*

	2003	2002	Change	Percentage Change
Bruker Daltonics	\$ 146,749	\$ 116,368	\$ 30,381	26.1%
Bruker AXS	113,930	104,290	9,640	9.2
Bruker BioSciences	\$ 260,679	\$ 220,658	\$ 40,021	18.1%

Bruker Daltonics' net revenue increased by \$30.4 million, or 26.1%, in 2003 compared to 2002. Of this increase, approximately \$17.7 million, or 15.2%, resulted from currency fluctuations. Organic

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growth of 10.9% is primarily due to an increase in mass spectrometry system sales, particularly within our ion trap and TOF product lines, and aftermarket business of consumables and service contracts. We also experienced an increase of \$1.1 million in our grant revenue which is the result of the timing of receipts from various projects for early-stage research and development projects funded by grants from the German government. These increases were partially offset by a decline in our NBC detection business. Life science systems revenue, NBC detection systems revenue and aftermarket revenue as a percentage of Bruker Daltonics' product revenue were 72%, 9% and 19%, respectively, in 2003 compared to 70%, 15% and 15%, respectively, in 2002.

Bruker AXS' net revenue increased by \$9.6 million, or 9.2%, in 2003 compared to 2002. Of this increase, approximately \$12.9 million, or 12.3%, resulted from currency fluctuations. Excluding currency effects, Bruker AXS' net revenue declined 3.1%. The decline in net revenue excluding currency effects was driven by a decline in SCD system sales. This decline was partially offset by increases in XRF system, thermal analyzer, and aftermarket revenues. Aftermarket revenues consist of extended warranties and service agreements, replacement parts, accessories, software packages, upgrades, repair calls, support services and training. Analytical X-ray and other systems and aftermarket sales as a percentage of Bruker AXS' product revenue were 70% and 30%, respectively, in 2003 compared to 76% and 24%, respectively in 2002.

#### *Cost of Product Revenue:*

	2003	Percentage of Product Revenue	2002	Percentage of Product Revenue	Change	Percentage Change
Bruker Daltonics	\$ 76,079	52.3%	\$ 55,872	48.1%	\$ 20,207	36.2%
Bruker AXS	68,755	60.3	63,114	60.5	5,641	8.9
Bruker BioSciences	\$ 144,834	55.6%	\$ 118,986	54.0%	\$ 25,848	21.7%

Bruker Daltonics' cost of product revenue increased by \$20.2 million, or 36.2%, in 2003 compared to 2002. Of this increase, approximately 22.1% is attributable to foreign currency exchange rates. The increase also is driven in part by increased sales. The increase is also attributable to an unprofitable contract with the U.K. Ministry of Defense ("MOD"), which resulted in product revenue of \$2.9 million and cost of product revenue of \$2.8 million, or a 0.9% increase in cost of product revenues. The remainder of the increase is due to the change in the mix of sales to third party customers and distributors.

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Bruker AXS' cost of product revenue increased by \$5.6 million, or 8.9%, in 2003 compared to 2002. Of this increase, approximately 11.9% is attributable to foreign currency exchange rates. The net decrease of 3% is partially due to lower sales. Also reducing the cost of product revenues were lower installation and warranty costs and sales to lower cost distributors, as well as improved productivity related to our aftermarket sales. Offsetting in part cost of product revenue improvements during 2003 was a write-off of \$1.0 million of inventory resulting from the restructuring of the X-ray life science business. Cost of product revenues as a percentage of product revenues also increased for our X-ray life science systems due to overcapacity in our production operations.

### *Sales and Marketing:*

	2003	Percentage of Product Revenue	2002	Percentage of Product Revenue	Change	Percentage Change
Bruker Daltonics	\$ 32,747	22.5%	\$ 26,806	23.1%	\$ 5,941	22.2%
Bruker AXS	27,673	24.3	21,340	20.5	6,333	29.7
Bruker BioSciences	\$ 60,420	23.2%	\$ 48,146	21.8%	\$ 12,274	25.5%

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Bruker Daltonics' sales and marketing expense increased by \$5.9 million, or 22.2%, in 2003 compared to 2002. This increase is primarily due to unfavorable currency effects that resulted in approximately 12.4% of the 22.2% increase. The remainder of the increase is attributable to costs incurred on commissions from higher sales, an increase in headcount and increase in amortization expense related to our demonstration inventory.

Bruker AXS' sales and marketing expense increased by \$6.3 million, or 29.7%, in 2003 compared to 2002. This increase is primarily due to unfavorable currency effects that resulted in approximately 14.7% of the 29.7% increase. The increase is also attributable to increased amortization expense related to our additional demonstration inventory and higher commissions to distributors and other representatives due to increased sales through these channels.

### *General and Administrative:*

	2003	Percentage of Product Revenue	2002	Percentage of Product Revenue	Change	Percentage Change
Bruker Daltonics	\$ 8,121	5.6%	\$ 7,009	6.0%	\$ 1,112	15.9%
Bruker AXS	8,803	7.7	8,265	7.9	538	6.5
Corporate	411				411	100.0
Bruker BioSciences	\$ 17,335	6.7%	\$ 15,274	6.9%	\$ 2,061	13.5%

Bruker Daltonics' general and administrative expense increased by \$1.1 million, or 15.9%, in 2003 compared to 2002. This increase is primarily due to currency effects that resulted in 10.2% of the 15.9% increase. The remainder of the increase is due primarily to additional overhead costs for the two new facilities in the U.S. and Germany that were completed at the end of 2002.

Bruker AXS' general and administrative expense increased by \$539,000, or 6.5%, in 2003 compared to 2002. This increase is primarily due to currency effects that resulted in 13.1% of the 6.5% increase. The increase also is attributable to increased amortization expense for acquired intangible assets. These increases were offset in part by the elimination of public company costs in the second half of the year as a result of our July 1, 2003 merger.

Bruker BioSciences corporate charges were \$411,000 and related to public company costs such as legal fees, audit fees and directors and officers insurance for the second half of the year.

### *Research and Development:*

	2003	Percentage of Product Revenue	2002	Percentage of Product Revenue	Change	Percentage Change
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Bruker Daltonics	\$ 26,267	18.1%	\$ 20,734	17.9%	\$ 5,533	26.7%
Bruker AXS	11,759	10.3	9,903	9.5	1,856	18.7
Bruker BioSciences	\$ 38,026	14.6%	\$ 30,637	13.9%	\$ 7,389	24.1%

Bruker Daltonics' research and development expense increased \$5.5 million, or 26.7%, in 2003 compared to 2002. This increase is attributable primarily to increased investment in research and development which we expect to result in new product introductions in 2004 and 2005. A large research and development project that is being funded in part by a research and development grant in Germany also contributed to the increase. Bruker Daltonics receives income of 50% on the actual expenses incurred on behalf of this grant that is recorded in other revenue in the Consolidated Statement of Operations. The grant is expected to continue into 2004. Netting the grant revenue received in 2003 against total research and development expense for the year, Bruker Daltonics' research and development expense as a percent of product revenue would have been 17.2%. The remainder of the change is due to currency effects resulting in approximately 16.5% of the 26.7% increase.

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Bruker AXS' research and development expense increased \$1.9 million, or 18.7%, in 2003 compared to 2002. This increase relates to currency effects that resulted in approximately 11.8% of the 18.7% increase. Additionally, there was an increase in licensing fees paid to a third-party software developer. This increase was offset in part by a reduction in headcount and the timing of the purchasing of materials.

We project and track our research and development expenditures by project only on a selective basis. For example, we identify research and development expenditures for IPR&D. As such, we are not able to estimate our research and development projects currently in process. We do expect that future research and development expenditures will be consistent with historical levels of research and development expenditures.

**Reversal of Liability Accrual.** Bruker BioSciences reversed a liability accrual of \$1.9 million in the year ended December 31, 2003. During the third quarter of 2001, Bruker Daltonics had a reserve of \$1.7 million for liquidated damages pursuant to a contract with the U.K. Ministry of Defense ("MOD"). We disputed the applicability of liquidated damages and believed that we were owed additional development funding by the MOD. During the fiscal year ended December 31, 2003, our Swiss and German subsidiaries delivered product which met the specifications of the contract. As such, we have an understanding with the MOD that it will not pursue any further claims for liquidated damages, other than those previously paid, pursuant to the contract and that we will not pursue our claims for the recovery of additional research and development expenses incurred in connection with the contract. Therefore, the reserve of \$1.9 million for liquidated damages was reversed during the second quarter of 2003.

**Other Special Charges.** Other special charges for the year ended December 31, 2003 were \$11.7 million compared to \$2.0 million in 2002. During the fiscal year ended December 31, 2003, we incurred \$11.7 million of merger related charges, including cash charges for merger transaction costs of \$6.4 million and cash restructuring charges of \$0.9 million incurred in conjunction with the consolidation of manufacturing sites. The 2003 merger related costs also included the non-cash charges for write-off of acquired in-process research and development of \$2.5 million, goodwill and other intangibles write-off of \$1.2 million, and impairment charges of \$0.7 million related to acquired assets. Bruker Daltonics incurred \$2.9 million of other special charges mainly for merger transaction costs. Bruker AXS incurred \$8.8 million for the remaining special charges in connection with the merger.

**Interest and Other Income (Expense), Net.** Interest and other income (expense) for the year ended December 31, 2003 was \$1.0 million, compared to \$(9.3) million in 2002. The difference relates primarily to a \$(10.9) million charge we incurred during 2002 relating to the write-down of our investments in certain proteomics content companies. In addition, part of the increase is due to appreciation on the fair value of derivative financial instruments. These increases were offset in part by lower interest income, which has declined as a result of the lower interest earned on our cash and short-term investments during 2003, lower gains on foreign currency transactions and a loss on disposal of equipment.

**Minority Interest in Consolidated Subsidiaries.** Minority interest in consolidated subsidiaries for the year ended December 31, 2003 was \$(853,000) compared to \$(212,000) in 2002. The minority interest in subsidiaries represents the minority shareholders' proportionate share of net income (loss) for the fiscal year ended December 31, 2003 and 2002. For the twelve months ended December 31, 2003 and 2002, the minority interest relates primarily to the proportionate share of net loss for minority shareholders of 31% of Bruker AXS Inc. for the first six months of 2003 and for the year 2002, as well as 25% of Baltic Scientific since our acquisition in April 2003 and 49% of InCoatec GmbH since our acquisition in February 2002.

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**Provision for Income Taxes.** The provision for income taxes for the year ended December 31, 2003 was \$9.7 million, compared to \$2.8 million in 2002. The effective tax rate was 112% for the year ended December 31, 2003, compared to 77% for 2002. The income tax provision is determined by applying an estimated effective tax rate to income before income taxes. The estimated effective income tax rate is based on the Company's pretax income, permanent book/tax differences and tax credits. The significant variation from the customary effective tax rate of approximately 38% is due to the valuation allowance of \$9.6 million recorded against deferred tax assets. A full valuation allowance was recorded against the deferred tax assets in the U.S. due to cumulative losses incurred in the U.S. in recent years. In addition, we did not record a tax benefit on \$6.4 million of merger related charges including acquired research and development, merger transaction costs, restructuring charges, write-off of goodwill and other intangible assets, and the impairment of acquired assets for 2003.

**Cumulative Effect of Change in Accounting Principle.** We adopted SFAS No. 142, "Goodwill and Other Intangible Assets," in the first quarter of fiscal 2002. Under the transitional provisions of SFAS No. 142, we tested goodwill and intangible assets with indefinite useful lives for impairment as of January 1, 2002 pursuant to the method prescribed by SFAS No. 142. We completed the transitional impairment tests in the third quarter of 2002, which resulted in recording an impairment loss of \$1.0 million (\$0.6 million, net of tax). In accordance with the transitional provisions of SFAS No. 142, the impairment loss was recorded in the first quarter of 2002 as a cumulative effect of change in accounting principle. The goodwill impairment loss related to our Bruker Nonius reporting unit of Bruker AXS, which was acquired in April 2001. Changes in the market and economic conditions since the date of acquisition resulted in an impairment to the goodwill allocated to Bruker Nonius.

*Year Ended December 31, 2002 Compared to Year Ended December 31, 2001*

**Net Revenue:**

	2002	2001	Change	Percentage Change
Bruker Daltonics	\$ 116,368	\$ 92,691	\$ 23,677	25.5%
Bruker AXS	104,290	82,588	21,702	26.3
Bruker BioSciences	\$ 220,658	\$ 175,279	\$ 45,379	25.9%

Bruker Daltonics' net revenue increased by \$23.7 million, or 25.5%, in 2002 compared to 2001. Of this increase, approximately \$4.6 million, or 5.0%, resulted from currency fluctuations. The increase in total product revenue is related to continuing growth of all our life science product lines. During 2002, we also saw significant growth in our NBC detection system sales due to a large CBMS contract, in connection with which we recorded sales in 2002 of \$10.4 million, related to the U.S. Army. Life science systems revenue, NBC detection systems revenue and aftermarket revenue as a percentage of product revenue were 70%, 15% and 15%, respectively, in 2002 as compared to 74%, 10% and 16%, respectively, in 2001.

Bruker AXS' net revenue increased by \$21.7 million, or 26.3%, in 2002 compared to 2001. Of this increase, approximately \$8.3 million related to our X-ray diffraction systems; specifically, the market's acceptance of the D8 DISCOVER CC and D4 ENDEAVOR accompanied by strong sales of our existing D8 ADVANCE. In addition, the S4 PIONEER, an X-ray fluorescence system, was introduced in the fourth quarter of 2001 and resulted in an increase in sales of \$4.7 million. Approximately \$4.7 million of the increase in sales related to our acquisition of MAC Science. The remainder of the increase was due primarily to a \$3.2 million increase in aftermarket and other sales. Aftermarket and other sales consist of extended warranty and service agreements, replacement parts, accessories, software packages, upgrades, repair calls, support services and training. Currency fluctuations on net sales for the fiscal year ended December 31, 2002 had a favorable impact of \$3.4 million, or 4.1%, on

our revenues. Analytical X-ray and other systems and aftermarket sales as a percentage of product revenue were 76% and 24%, respectively, in 2002 compared to 73% and 27%, respectively, in 2001.

**Cost of Product Revenue:**

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	2002	Percentage of Product Revenue	2001	Percentage of Product Revenue	Change	Percentage Change
Bruker Daltonics	\$ 55,872	48.1%	\$ 43,588	47.5%	\$ 12,284	28.2%
Bruker AXS	63,114	60.5	51,063	61.8	12,051	23.6
Bruker BioSciences	\$ 118,986	54.0%	\$ 94,651	54.3%	\$ 24,335	25.7%

Bruker Daltonics' cost of product revenue increased by \$12.3 million, or 28.2%, in 2002 compared to 2001. This increase is attributable to the increase of our inventory reserve by approximately \$700,000. The increase in the reserve mainly related to items within our slower growth product lines, including the NBC detection business. Excluding this charge, our 2002 cost of product revenue would have been approximately 47.5%.

Bruker AXS' cost of product revenue increased by \$12.1 million, or 23.6%, in 2002 compared to 2001. This increase was due to the overall growth in system sales. In addition, approximately \$2.8 million of this increase was due to the acquisition of MAC Science. Further, currency fluctuations increased our cost of sales by approximately \$2.1 million as compared to the prior year. The gross margin on sales was 39.5% in 2002 compared to 38.2% in 2001. The improvement in gross margin was driven particularly by improved performance in our APEX and PROTEUM single crystal diffraction product lines. In addition, our redesign to cost initiatives improved our margins in our X-ray diffraction systems, particularly our D8 products.

**Sales and Marketing:**

	2002	Percentage of Product Revenue	2001	Percentage of Product Revenue	Change	Percentage Change
Bruker Daltonics	\$ 26,806	23.1%	\$ 21,711	23.7%	\$ 5,095	23.5%
Bruker AXS	21,340	20.5	16,792	20.3	4,548	27.1
Bruker BioSciences	\$ 48,146	21.8%	\$ 38,503	22.1%	\$ 9,643	25.0%

Bruker Daltonics' sales and marketing expense increased by \$5.1 million, or 23.5%, in 2002 compared to 2001. This increase relates primarily to significant new product introductions during the first and second quarters of 2002 and the cost associated with the rollout of these products and a general increase in our business. The decline as a percentage of product revenues is related to our increasingly effective leveraging of our selling and marketing expenses against the increase in product revenues.

Bruker AXS' sales and marketing expense increased by \$4.5 million, or 27.1%, in 2002 compared to 2001. This increase was primarily due to an increase in sales commissions and employee costs due to higher sales levels. In addition, approximately \$0.9 million of this increase related to the acquisition of MAC Science. Currency fluctuations increased marketing and selling expenses by \$0.8 million.

**General and Administrative:**

	2002	Percentage of Product Revenue	2001	Percentage of Product Revenue	Change	Percentage Change
Bruker Daltonics	\$ 7,009	6.0%	\$ 6,007	6.5%	\$ 1,002	16.7%
Bruker AXS	8,265	7.9	5,298	6.4	2,967	56.0
Bruker BioSciences	\$ 15,274	6.9%	\$ 11,305	6.5%	\$ 3,969	35.1%

Bruker Daltonics' general and administrative expense increased by \$1.0 million, or 16.7%, in 2002 compared to 2001. Although general and administrative expenses as a percentage of product revenue decreased, general and administrative expenses have remained relatively consistent with the overall increased sales growth of Bruker Daltonics. The increase in the total amount of general and administrative expenses relates to an increase in costs incurred in 2002 associated with several business development projects.

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Bruker AXS' general and administrative expense increased by approximately \$3.0 million, or 56.0%, in 2002 compared to 2001. This increase was due to approximately \$1.7 million of costs related to being a public company, including insurance, legal fees, filing fees and other costs. In addition, approximately \$0.5 million of this increase related to the acquisition of MAC Science. Currency fluctuations increased general and administrative expenses by \$0.2 million.

### **Research and Development:**

	2002	Percentage of Product Revenue	2001	Percentage of Product Revenue	Change	Percentage Change
Bruker Daltonics	\$ 20,734	17.9%	\$ 18,468	20.1%	\$ 2,266	12.3%
Bruker AXS	9,903	9.5	7,744	9.4	2,159	27.9
Bruker BioSciences	\$ 30,637	13.9%	\$ 26,212	15.0%	\$ 4,425	16.9%

Bruker Daltonics' research and development expense increased by approximately \$2.3 million, or 12.3%, in 2002 compared to 2001. The overall dollar increase relates to the development of certain new projects, which were incorporated into our product line throughout 2003. Although research and development expense increased, research and development expense as a percentage of product revenue decreased. This decline in research and development expense as a percentage of product revenues is in line with our business strategy and due primarily to increased product revenue.

Bruker AXS' research and development expense increased by approximately \$2.2 million, or 27.9%, in 2002 compared to 2001. Approximately \$1.7 million of the increase was due to the expansion of research and development projects, specifically material purchases for these projects. In addition, research and development expenses increased by \$0.5 million due to the acquisition of MAC Science. Currency fluctuations increased research and development expenses by \$0.3 million. As a percentage of net sales, research and development expenses increased to 9.5% for the year ended December 31, 2002 from 9.4% for the year ended December 31, 2001.

We project and track our research and development expenditures by project only on a selective basis. For example, we identify research and development expenditures for IPR&D. As such, we are not able to estimate our research and development projects currently in process. We do expect that future research and development expenditures will be consistent with historical levels of research and development expenditures.

**Other Special Charges.** Other special charges were \$2.0 million in 2002 compared to \$3.2 million in 2001.

Bruker Daltonics' other special charges for 2002 consist of a \$700,000 charge to increase a contract reserve for the cost of completing an existing contract with the U.K. Ministry of Defense as well as a \$500,000 charge related to a restructuring charge which was primarily related to a workforce reduction of approximately 50 employees. The charge consisted primarily of employee severance, professional fees and outplacement services. During the second quarter of 2002, the Company booked approximately \$1.5 million for these anticipated costs, and then recorded a credit of approximately \$1.0 million against this reserve during the third and fourth quarters of 2002 to reflect a revised estimate for the actual employee severance costs. In 2002, there was also a \$1.0 million credit relating to a reversal of a

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previously established reserve from our patent litigation with Finnigan. The reserve was reduced by \$1.0 million during 2002 as a result of the final settlement of this litigation.

In addition, as Bruker Daltonics reported for the third quarter of 2001, we recorded a loss on provision charge of \$1.5 million in connection with liquidated damages pursuant to the MOD contract. At December 31, 2001, the balance was \$1.7 million due to foreign currency adjustments. As discussed previously, these issues have been resolved. This charge was offset by a litigation credit of \$1.9 million.

Bruker AXS, in the third quarter of 2002, implemented a restructuring program to reduce costs and improve productivity by eliminating redundant positions, streamlining production and initiating cost reduction programs in all operating areas. As a result, we recorded a restructuring charge of approximately \$1.8 million (\$1.0 million, net of tax). Of the total restructuring charge, approximately \$0.5 million related to involuntary and voluntary employee termination benefits for personnel reductions in all operating areas. Under the restructuring program, we reduced our workforce by approximately 19 employees, or approximately 5% of the total workforce in the United States, Germany and United Kingdom. The restructuring charge also included approximately \$0.7 million for the write-off of property and equipment as a result of ceasing production at a facility located in the United Kingdom. Beginning in the fourth quarter of 2002, all products that were produced in the United



Kingdom are being produced at the production facility in Germany. In addition, approximately \$0.5 million of the restructuring charge consisted of penalties for terminating contracts for outsourced inventory and information technology services which we now provide internally. The remaining \$0.1 million consisted of engineering inventory that was written off as a result of the termination of a research and development project.

In 2001, Bruker AXS wrote off approximately \$3.6 million of in-process research and development costs related to the acquisition of Bruker Nonius.

**Interest and Other Income (Expense), Net.** Interest and other income (expense) for the year ended December 31, 2002 was \$(9.3) million, compared to \$2.3 million in 2001. The increase in expenses relates to a \$(10.9) million write-down of our investments in three non-affiliated proteomics companies as well as a foreign currency exchange loss for the year of \$1.5 million. During the year, we earned interest income of approximately \$1.8 million and paid approximately \$(1.3) million in interest expense. Our interest income on our short-term investments declined in 2002 due to the use of cash to complete the expansion of our United States and Germany facilities as well as due to a reduced rate of return.

**Minority Interest in Consolidated Subsidiaries.** Minority interest in consolidated subsidiaries of \$(212,000) and \$(427,000), on the statement of operations for the year ended December 31, 2002 and 2001, primarily represents the minority public shareholders' proportionate share of net loss for 31% of Bruker AXS for 2002 and 2001, as well as 49% of InCoatec GmbH since February 2002.

**Provision for Income Taxes.** The provision for income taxes increased \$1.4 million, or 98.6%, to \$2.8 million compared to \$1.4 million in 2001. The effective tax rate was 77% for the year ended December 31, 2002 and 38% for 2001. The income tax provision is determined by applying an estimated effective tax rate to income before income taxes. The estimated effective income tax rate is based on the Company's pretax income, permanent book/tax differences and tax credits. The significant variation from the customary effective tax rate of approximately 38% is primarily due to recording a valuation allowance on our deferred tax assets for the write-down of investments in other companies and foreign tax credits.

**Cumulative Effect of Change in Accounting Principle.** We adopted SFAS No. 142, "Goodwill and Other Intangible Assets," in the first quarter of fiscal 2002. Under the transitional provisions of SFAS No. 142, we tested goodwill and intangible assets with indefinite useful lives for impairment as of January 1, 2002 pursuant to the method prescribed by SFAS No. 142. We completed the transitional impairment tests in the third quarter of 2002, which resulted in recording an impairment loss of

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approximately \$1.0 million (\$0.6 million, net of tax). In accordance with the transitional provisions of SFAS No. 142, the impairment loss was recorded in the first quarter of 2002 as a cumulative effect of change in accounting principle. The goodwill impairment loss related to our Bruker Nonius reporting unit of Bruker AXS, which was acquired in April 2001. Changes in the market and economic conditions since the date of acquisition resulted in an impairment to the goodwill allocated to Bruker Nonius.

## LIQUIDITY AND CAPITAL RESOURCES

Presently, we anticipate that our existing capital resources will meet our operating and investing needs at least through the end of 2004. As of December 31, 2003, we had cash and cash equivalents of \$62.6 million and working capital of \$142.0 million. Historically, we have financed our growth through a combination of debt financing and issuance of common stock.

As of December 31, 2003, we had approximately \$22.2 million of net operating loss carry-forwards available to reduce future taxable income. These losses have various expiration dates through 2023. We also have research and development tax credits of approximately \$2.7 million available to offset future tax liabilities that expire at various dates through 2023.

During the fiscal year ended December 31, 2003, net cash used in operating activities was \$6.1 million, which improved in comparison to net cash of \$10.7 million used in operating activities during the fiscal year ended December 31, 2002. This was primarily due to our accounts receivable and inventory growing at a slower rate than our sales volume. We have made improvements in our cash collection efforts for accounts receivable and have more efficiently managed our inventories by reducing our lead times. Our improvements in accounts receivable and inventories were offset by decreases in other current liabilities, primarily income taxes payable, contingent liabilities and customer advances. Our use of cash during the year ended December 31, 2002 was primarily due to increases in accounts receivable and inventories related to sales growth. During the year ended December 31, 2001, we used \$13.6 million in cash flow from operations. Our use of cash was primarily due to increases in accounts receivable and inventories. These increases were partially offset by increased accounts payable and other current liabilities.

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For the year ended December 31, 2003, cash flow used for investing activities totaled \$10.4 million, compared to \$17.3 million cash generated for the year ended December 31, 2002. We used \$5.5 million of cash during the fiscal year ended December 31, 2003 for capital expenditures, which were principally related to improvements of existing assets. In 2004, we expect to continue to make capital investments which will focus on enhancing the efficiency of our operations and supporting our growth. In 2003, we also used \$5.5 million of cash in the purchase of businesses and minority interest related to our merger with Bruker AXS Inc.

Cash flow used in financing activities totaled \$8.1 million for the year ended December 31, 2003, compared to \$19.0 million cash generated for the year ended December 31, 2002. We used \$10.8 million for a cash payment to our shareholders in connection with the Bruker AXS Inc. merger. In December 2002, we entered into a demand revolving line of credit with Citizens Bank in the United States in the amount of \$2.5 million. This line, which is secured by portions of our inventory, receivables and equipment in the United States, is used to support working capital and has no expiration date. We also maintain revolving lines of credit of approximately \$30.4 million with German banks and Japanese banks. Both of the German and Japanese lines of credits are unsecured. As of December 31, 2003, there was approximately \$16.4 million outstanding on our U.S., German, and Japanese lines of credit. Bruker AXS has an interest rate swap that, until January 1, 2003, was designated as an effective hedge for accounting purposes. Bruker AXS pays a 4.6% fixed rate of interest and receives a variable rate of interest based on the Bond Market Association Municipal Swap Index. The contract has a \$2.2 million notional value which decreases in conjunction with the IRB payment schedule until the swap and IRB agreements terminate at December 2013.

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We have both short-term and long-term notes payable with outstanding balances aggregating \$28.6 million as of December 31, 2003. As of December 31, 2003, the interest rates on our notes payable range from 1.00% to 5.10%.

In connection with some of our outstanding debt, we are required to maintain certain financial ratios and meet other financial criteria. Additionally, we are subject to a variety of restrictive covenants that require bank consent if not met. As of December 31, 2003, the latest measurement date, we were in compliance with all financial covenants.

In 2002, we repurchased 457,200 shares of Bruker Daltonics Inc. common stock and 192,422 shares of Bruker AXS Inc. common stock, at an average price of \$5.10 and \$3.93, respectively, in accordance with the terms of our stock repurchase plans. The Bruker AXS Inc. share number is a post-merger number which gives effect to the merger share exchange ratio. Our stock repurchase plan, announced August 26, 2002, authorizes us to repurchase up to one million shares of our common stock. During the fiscal year ended December 31, 2003, we did not repurchase any shares.

In July 2003, we increased our outstanding shares by 31.5 million to 86.0 million due to the merger with Bruker AXS. In conjunction with the merger, we paid \$16.3 million to Bruker AXS shareholders who elected to receive 25% of their outstanding shares in cash. See Note 5 for further details regarding the merger.

Our future capital uses and requirements depend on numerous factors, including our success in selling our existing products, our progress in research and development, our ability to introduce and sell new products, our sales and marketing expenses, our need to expand production capacity, costs associated with possible acquisitions, expenses associated with unforeseen litigation, regulatory changes, competition and technological developments in the market. We estimate our future capital expenditures to be approximately \$5.5 million for 2004.

### CONTRACTUAL OBLIGATIONS AND COMMITMENTS

Our obligations and commitments to make future payments under contracts, such as debt and lease agreements, and under contingent commitments are included in the following table as of December 31, 2003 (in thousands):

Contractual obligations	Total	Less than 1 year	1-3 years	4-5 years	After 5 years
Short-term borrowings	\$ 16,369	\$ 16,369	\$	\$	\$
Operating lease obligations	7,266	2,214	3,667	1,385	
Long-term debt	28,592	2,218	2,449	15,314	8,611
Pension	6,886		11	180	6,695
<b>Total</b>	<b>\$ 59,113</b>	<b>\$ 20,801</b>	<b>\$ 6,127</b>	<b>\$ 16,879</b>	<b>\$ 15,306</b>

Disclosures regarding these obligations are located in our Financial Statements incorporated by reference in this prospectus.

## TRANSACTIONS WITH RELATED PARTIES

We are affiliated, through common shareholders, with several other entities which use the Bruker name. Pursuant to an omnibus sharing agreement with our affiliates, we have entered into sharing agreements with our affiliates which provide for the sharing of specified intellectual property rights, services, facilities and other related items.

Sales to related parties which are not subsidiaries of Bruker BioSciences are included in the consolidated financial statements. Such related parties are affiliated sales offices in countries in which

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we do not have our own distribution network. As such, these sales were primarily for resale of our products only. Sales to related parties are at commercially reasonable arm's length conditions and pricing. These sales amounted to \$13.0 million, \$16.6 million and \$9.3 million for the years ended December 31, 2003, 2002 and 2001, respectively. In addition, we made purchases of products from affiliated entities of \$7.1 million, \$5.3 million and \$3.5 million in the years ended December 31, 2003, 2002 and 2001, respectively.

We share various general and administrative expenses for items including umbrella insurance policies, accounting services and leases with various related parties. These general and administrative expenses amounted to \$1.4 million, \$1.2 million and \$1.6 million for the years ended December 31, 2003, 2002 and 2001, respectively.

The Company has investments in three non-affiliated companies. The Company recognized sales to these companies, GeneProt, Inc., Cengent Therapeutics and Affinium Pharmaceuticals Inc., of approximately \$2.1 million, \$0, and \$34,000, respectively in 2003, \$510,000, \$0 and \$194,000, respectively, in 2002, and \$6.0 million, \$300,000 and \$400,000, respectively, in 2001. We believe these sales were made under arm's length conditions and in the normal course of business. We made no purchases from any of these companies in 2003, 2002 or 2001.

On November 28, 2002, we issued 109,800 shares of restricted common stock, par value \$0.01 per share, to Dr. Dieter Koch, Managing Director of Bruker Daltonik GmbH and, at the time, a Director of Bruker Daltonics Inc., valued at approximately \$593,000 and cash of \$593,000, in exchange for his minority interest in Bruker Saxonia Analytik GmbH, a majority-owned subsidiary of Bruker Daltonik GmbH. The shares of our common stock were issued pursuant to an exemption from the registration requirements of the Securities Act of 1933, as amended, afforded by Section 4(2) of that act.

In 2003, 2002 and 2001, the Company paid \$1.4 million, \$849,000 and \$1.0 million, respectively, to a law firm in which one of its directors is a partner.

## QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are potentially exposed to market risk associated with changes in foreign exchange and interest rates for which we selectively use financial instruments to reduce related market risks. An instrument will be treated as a hedge if it is effective in offsetting the impact of volatility in our underlying exposure. We have also entered into instruments which are not effective derivatives under the requirements of SFAS No. 133 and therefore such instruments are not designated as hedges. All transactions are authorized and executed pursuant to policies and procedures. Analytical techniques used to manage and monitor foreign exchange and interest rate risk include market valuation.

### Impact of Foreign Currencies

We sell products in many countries, and a substantial portion of sales, costs and expenses are denominated in foreign currencies, principally in the euro. In 2003, the U.S. dollar continued to weaken against the euro. This significantly increased our consolidated revenue growth by \$30.5 million, or 13.8%, as expressed in U.S. dollars. In the first three months of 2002, the U.S. dollar was strengthening against the euro. However, this trend reversed during the second half of 2002, as the U.S. dollar weakened against the euro. Therefore, during the year ended December 31, 2002, fluctuations in foreign currencies had only a minimal impact on our consolidated revenue growth rate, as expressed in U.S. dollars.

While we may, from time to time, hedge specifically identified cash flows in foreign currencies using forward contracts, this foreign currency activity historically has not been material. The maturities of the forward exchange contracts generally coincide with the settlement dates of the related transactions. Realized and unrealized gains and losses on these contracts are recognized in the same

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period as gains and losses on the hedged items. At December 31, 2003 and 2002, there were no foreign currency forward contracts outstanding. Additionally, there were no material non-functional currency denominated financial instruments that would expose us to foreign exchange risk outstanding at December 31, 2003 and 2002.

Historically, realized foreign exchange gains and losses have been material. Realized foreign exchange gains (losses) were approximately \$1.2 million, \$1.5 million and \$(263,000) for the fiscal year ended December 31, 2003, 2002 and 2001, respectively. As we expand internationally, we will evaluate currency risks and may continue to enter into foreign exchange contracts from time to time to mitigate foreign currency exposure.

We have entered into foreign-denominated debt obligations. The currency effects of the debt obligations are reflected in the other income (expense) line on the statement of operations.

We also have foreign-denominated intercompany borrowing arrangements with our Bruker AXS GmbH subsidiary in Germany that impacted our transaction gains and losses and intercompany borrowing arrangements with our Bruker Nonius subsidiary in The Netherlands that affected accumulated other comprehensive income. A 10% increase or decrease of the respective foreign exchange rate with our Bruker Nonius subsidiary in The Netherlands would result in a change in accumulated other comprehensive income (loss) of approximately \$1.1 million or \$(0.9) million, respectively. A 10% increase or decrease of the respective foreign exchange rate with Germany would result in a transaction gain (loss) of approximately \$0.5 million or \$(0.4) million, respectively.

#### **Impact of Interest Rates**

Our exposure related to adverse movements in interest rates are derived primarily from outstanding floating rate debt instruments that are indexed to short-term market rates and cash equivalents. Our objective in managing our exposure to interest rates is to decrease the volatility that changes in interest rates might have on earnings and cash flows. To achieve this objective, we use a fixed rate agreement to adjust a portion of our debt, as determined by management, that is subject to variable interest rates.

In the U.S., we have entered into an interest rate swap arrangement to limit the interest rate exposure on our \$2.2 million industrial revenue bond to a fixed rate of 4.6%. We pay a 4.6% fixed rate of interest and receive a variable rate of interest based on the Bond Market Association Municipal Swap Index on a \$2.2 million notional amount. Net interest payments or receipts are recorded as adjustments to interest expense. In addition, the instrument is recorded at fair market value on our balance sheet, and changes in the fair market value are recorded in current earnings. The fair value of the instrument was a liability of approximately \$109,000 and \$133,000, net of tax at December 31, 2003 and December 31, 2002, respectively.

In April 2002, we entered into two derivative financial instruments, a cross currency interest rate swap and an interest rate swap. The cross currency interest rate swap of 2 million euro secures a fixed interest rate of 1.75% per annum until January 4, 2012. The interest rate swap of 3 million euro reduces the 6-month EURIBOR rate by 1.80% per annum until January 4, 2007. We entered into the financial instruments to manage our exposure to interest rates and foreign exchange risk. During the fiscal year ending December 31, 1999, we entered into three financial instruments, an interest rate cap, an interest rate swap and a cross currency interest rate swap. By entering into these financial instruments, we obtained the right to borrow money at lower rates of interest. We continue to hold these financial instruments until we elect to exercise the options to borrow the money. Until the instruments become an effective hedge, the instruments are considered speculative and are marked-to-market. The fair value of the instruments (appreciated) depreciated \$(466,000) and \$264,000 for the fiscal year ended December 31, 2003 and 2002, respectively. The fair value of the instruments

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was an asset (liability) of approximately \$151,000 as of December 31, 2003 and \$(315,000) as of December 31, 2002.

A 10% increase or decrease in the average cost of our variable rate debt would not result in a material change in pre-tax interest expense.

#### **Inflation**

We do not believe inflation has had a material impact on our business or operating results during the periods presented.

## RECENT ACCOUNTING PRONOUNCEMENTS

In January 2003, the Financial Accounting Standards Board ("FASB") issued FASB Interpretation No. 46, "Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51." ("FIN 46"). FIN 46 requires certain variable interest entities to be consolidated by the primary beneficiary of the entity if the equity investors in the entity do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN 46 is effective for all new variable interest entities created or acquired after January 31, 2003. For variable interest entities created or acquired prior to February 1, 2003, the provisions of FIN 46 were originally required to be applied for the first interim or annual period beginning after June 15, 2003. However, in October 2003 the FASB deferred the effective date of FIN 46 to the end of the first interim or annual period ending after December 15, 2003 for those arrangements involving special purpose entities entered into prior to February 1, 2003. All other arrangements within the scope of FIN 46 are subject to its provisions beginning in 2004. The Company adopted FIN 46, as required, with no material impact to its consolidated financial position or results of operations. The Company does not believe that the adoption of the remaining provisions of FIN 46 in 2004 will have a material impact on its financial position or results of operations.

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## BUSINESS

### Overview

We design and market products to address the rapidly evolving needs of the life science industry, and we are the publicly traded parent company of both Bruker Daltonics and Bruker AXS. Bruker Daltonics is a leading developer and provider of innovative life science tools based on mass spectrometry and also develops and provides a broad range of field analytical systems for NBC detection. Bruker AXS is a leading developer and provider of life science and advanced materials research tools based on X-ray technology.

Bruker Daltonics' mass spectrometers are sophisticated devices that measure the mass or weight of a molecule and can provide accurate information on the identity, quantity and primary structure of molecules. Our mass spectrometry-based solutions often combine advanced mass spectrometry instrumentation; automated sampling and sample preparation robots; reagent kits and other disposable products, called consumables, used in conducting tests, or assays; and powerful bioinformatics software. We offer mass spectrometry systems and integrated solutions for applications in multiple existing and emerging life science markets including genomics, expression proteomics, clinical proteomics, metabolic and peptide biomarker profiling, drug discovery and development, molecular diagnostics research and molecular and systems biology, as well as basic molecular medicine research. Our substantial investment in research and development allows us to design, manufacture and market a broad array of products intended to meet the rapidly growing needs of our diverse customer base. Our customers include pharmaceutical companies, biotechnology companies, proteomics companies, molecular diagnostics companies, academic institutions and government agencies. In addition, we market some of our life science systems through strategic distribution arrangements with Agilent Technologies, Sequenom and others. We are also a worldwide leader in supplying mass spectrometry-based and other systems for substance detection and pathogen identification in emergency response, homeland security and defense applications.

Bruker AXS' X-ray systems are advanced instruments that use extremely short wavelengths of energy to determine the characteristics and composition of matter as well as the three-dimensional structure of molecules. Depending on the application, our X-ray systems utilize one of three core X-ray analysis methods: single crystal diffraction, known as SCD or X-ray crystallography; polycrystalline X-ray diffraction, known as XRD or X-ray diffraction; and X-ray fluorescence, known as XRF. Using our modular platforms, we often combine each of these three technology applications with sample preparation tools, automation, consumables and data analysis software. Our products, which have particular application in structural proteomics, drug discovery, and materials and nanotechnology research fields, provide our customers with the ability to determine the three-dimensional structure of specific molecules, such as proteins, and to characterize and determine the properties and composition of materials. Our customers include biotechnology and pharmaceutical companies, nanotechnology companies, semiconductor companies, raw material manufacturers, chemical companies, academic institutions and other businesses involved in materials and structure analysis.

### Industry Background

#### *Life Sciences*

We design products that address, among other things, the rapidly evolving needs of the life science industry, academic institutions and research hospitals. The sequencing of the human genome has led to advances that are fueling further investment in the discovery and identification of genetic variation, peptides and proteins, as well as small molecule metabolites, often collectively referred to as systems biology. These developments, combined with advances in combinatorial chemistry, which is the creation

of libraries of chemical compounds, and in basic molecular biology and medical research, are spurring growth in the following developing and emerging areas:

*proteomics*, which involves the separation, identification and characterization of proteins in order to understand how proteins are created and modified, how they interact with other proteins or small molecules and what three-dimensional structures the proteins or protein complexes form;

*pharmacogenomics and pharmacoproteomics*, which compares the genetic and protein information of an individual to the average human genome and proteome to predict the response of individual patients and patient populations to drugs;

*expression proteomics*, which involves the large-scale measurement of protein expression, for protein identification, quantification and the determination of protein primary structures and their post-translational modification;

*clinical proteomics*, which is a rapidly developing area of clinical research, correlates basic molecular and clinical research and employs enabling technologies and resources from clinical patient information with proteomics and bioinformatics for the discovery of peptide and protein biomarker panels for diagnostic research use;

*interaction proteomics*, which involves the study of the interaction of proteins with each other and with small molecule drugs;

*structural proteomics*, which involves the three-dimensional structure determination of proteins and protein complexes;

*new methods of drug discovery*, which are based on the rapid measurement, or high throughput screening, of large numbers of small organic compounds synthesized through combinatorial chemistry against large numbers of disease pathways, or targets, identified by genomics and proteomics;

*biomarker discovery and molecular diagnostics research*, which develops rapid and sensitive assays for a broad range of body fluids, cell and tissue types for applications including cancer screening, infectious disease detection, human tissue assessment, the identification of specific agricultural characteristics and pathogen identification, even when the molecular mechanisms are not understood or the genomic sequence is not available;

*metabolic profiling, or metabonomics, in drug development and biomarker research*, which analyzes the levels of small organic molecules produced by the metabolism, called metabolites, present in a cell or in biological fluids to draw correlations between disease state and variations in metabolite levels; and

*pathogen and biological warfare agent detection and identification*, which utilizes mass spectrometry, among other technologies, to detect and identify bacterial or viral pathogens, as well as protein toxins which could be potential threats as biological warfare agents.

#### ***NBC Detection***

We design products to address the evolving needs of governments, defense and homeland security forces with respect to nuclear radiation detection and chemical warfare agent detection, as well as biological warfare agent and pathogen identification, also known as NBC (nuclear, biological, and chemical) detection. These products are used to detect the presence of such things as radioactivity, nerve gas or biological agents and play a vital role in the fight against terrorism. The market for NBC detection and identification systems, and for NBC detection research, has experienced significant growth and budget increases, and is driven primarily by the United States and the United Kingdom governments.

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**Materials and Nanotechnology Research**

We also design products that are vital in the research of the properties and structure of materials, including nanomaterials, and determination and analysis of the elemental composition of materials. These fields, known as materials and nanotechnology research, involve the discovery and characterization of new materials such as nanomaterials, semiconductors, thin films and catalysts and the determination of the elemental composition of chemicals, petrochemicals, pharmaceuticals, semiconductors, steel, cement, plastics and rubber in manufacturing and quality analysis/quality control applications in industries.

**Solutions**

**Bruker Daltonics.** Bruker Daltonics' product lines integrate sophisticated mass spectrometers with automated sample preparation and measurement and, where appropriate, bioinformatics software to address many of the bioanalytical and bioinformatics needs of the life science industry across a broad range of applications.

Bruker Daltonics products have particular application to:

genetic variation analysis, including such evolving areas as pharmacogenomics and personalized medicine;

proteomics;

metabonomics;

drug discovery based on high throughput screening and combinatorial chemistry; and

drug development.

Automated high throughput mass spectrometry systems offer significant advantages over other bioanalytical tools, including Edman sequencing and two-dimensional gel separations, in these emerging and rapidly changing markets. Bruker Daltonics' automated systems allow its customers to generate and evaluate large volumes of accurate, high-quality data on a cost-effective basis. We believe that this enhanced throughput and high-quality data improves our customers' ability to apply bioinformatics to validate lead disease pathways, or targets, understand disease pathways and analyze lead compounds. Our customers also use these products in molecular biology and other basic medical research. In addition, Bruker Daltonics' automated, integrated mass spectrometry technology is applied in the NBC detection products used in security and defense markets.

Bruker Daltonics' life science systems are based on four core mass spectrometry technologies: MALDI-TOF, ESI-TOF, FTMS and ITMS. Building on these core technologies, Bruker Daltonics offers a wide range of systems that address key analytical needs in multiple applications across the life sciences industry. Bruker Daltonics also offers comprehensive tool sets such as ClinProt, an integrated set of tools for peptide and biomarker discovery and clinical proteomics research, including automated magnetic bead based sample preparation methods and ClinProTools comprehensive analysis, visualization and statistical model building software tools.

**Bruker AXS.** Bruker AXS' X-ray systems integrate powerful detectors with advanced X-ray sources, computer-controlled positioning systems, sample handling devices and data collection and analysis software to acquire, analyze and manage elemental and molecular information. These integrated approaches address many of the matter characterization and structure needs of the life science, pharmaceutical, raw material and research industries across a broad range of applications. Bruker AXS provides high speed, sensitive systems for a variety of areas, including three-dimensional structure determination, protein crystal screening and molecular structure determination for the emerging structural proteomics market as well as the small molecule drug discovery market.

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Additionally, Bruker AXS provides high speed, automated systems for a broad range of applications in materials research, such as combinational screening of materials libraries for lead identification, determination of properties in the emerging field of nanostructure analysis and investigation of thin films and semiconductors. Bruker AXS also offers automated, cost-effective high throughput solutions for the determination of elemental composition in the industrial quality analysis/quality control market.

All of Bruker AXS' X-ray systems incorporate one or more of Bruker AXS' three core technology applications, X-ray crystallography, X-ray diffraction or X-ray fluorescence, to provide its customers with efficient, highly-accurate solutions. Bruker AXS provides its proteomics customers with integrated systems based on X-ray crystallography, which Bruker AXS believes to be the most efficient method for obtaining precise, static molecular structures. X-ray crystallography allows scientists to analyze large proteins, obtain a high-resolution, precise molecular structure, collect data quickly, interpret data automatically and determine a molecular structure with minimal operator expertise. Additionally, X-ray crystallography offers highly accurate three-dimensional structure information and can be used to determine the structure of unique proteins, including proteins for which there is no known closely related structure.

Bruker AXS' X-ray diffraction systems allow our materials research customers to combine high throughput combinatorial experimentation with X-ray technology for greater efficiency at lower costs. Bruker AXS' X-ray diffraction and X-ray fluorescence-based systems enable Bruker AXS' industrial customers to achieve results quickly with little sample preparation time and with a high degree of automation throughout the process.

In addition to the specific technological advances discussed above, we believe that our products offer the following advantages:

*Integrated solutions.* We provide many of our customers with complete solutions by integrating our mass spectrometry and X-ray systems with everything from front-end sample handling to back-end analysis software. We also increasingly provide these complete solutions in smaller, more compact designs to take up less space in laboratories. Our systems also interface easily with other hardware and software in a customer's lab to allow our customers maximum flexibility in creating customized solutions.

*Increased productivity.* Our products, incorporating advanced detectors, high throughput mass spectrometers, X-ray optics, sample handling robots and sophisticated analysis software, allow our customers to increase productivity by generating better results in a shorter time period. Our automated sample preparation and measurement technology and sophisticated, yet user-friendly software interfaces allow our customers to process high sample volumes with reduced reliance on highly-trained scientific personnel.

*High quality results and high performance.* Our mass spectrometry and X-ray systems generate highly accurate data with the speed, selectivity and sensitivity our customers demand. The high sensitivity of certain of our products enables our customers to analyze smaller quantities of samples as well as samples of increasingly smaller size. Our systems provide customers with extremely accurate results, providing novel research information while reducing the need for repeat analysis to eliminate errors.

*Cost efficiency.* Our systems often require minimal operator expertise and involvement and employ modular, integrated technology, offering our customers cost efficiency. Our technological advances serve to reduce our customers' costs related to labor, erroneous experiments, longer experiment time, replacing incompatible machinery or components and traveling to synchrotrons. We believe these cost efficiencies serve to off-set the often substantial cost of system acquisition. We believe we provide our customers with large volumes of highly accurate information at a relatively low cost.

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### Strategy

Our strategy is to continue to be a leading provider of mass spectrometry and related systems for use in life sciences as well as in NBC detection and to be a leading provider of X-ray systems for use in the life sciences, pharmaceutical, biotechnology, molecular diagnostics, nanotechnology, chemical, electronics and raw materials industries, as well as for academic and government research. Through our merger with Bruker AXS, we are striving to capitalize on synergistic technologies, to cross-sell our life science mass spectrometry and X-ray products, as well as to decrease some of our operating expenses. Key elements of our strategy include:

*Maintaining our position as a technology leader and innovator.* Both Bruker Daltonics and Bruker AXS are among the leaders and innovators in their respective technologies of mass spectrometry and X-ray technology. We plan to continue to invest in research and development, collaborations and strategic acquisitions in order to develop new and enhanced products. Prior product development efforts led to the development of one of the first vertical TOF/TOF systems and development of a novel integrated system for metabonomic profiling as well as the development and advancement of CCD detector and X-ray optics technologies. We intend to focus our business on technology particularly applicable to the life science market and to extend our advances to the materials science, substance detection and other markets.



*Providing integrated solutions.* Our goal is to continue to focus on the overall needs of our customers, providing them with complete solutions for the analysis of molecules and elemental composition, from sample preparation through analysis of results. Our focus is not only to provide technologically advanced mass spectrometry and X-ray components, but also to provide the components as part of systems that are fast, easy-to-use and compatible with a customer's overall data collection and analysis systems and needs. Our plan includes providing turn-key systems with open architecture that permits our systems to interface with other hardware and software components in the customer's lab.

*Focusing on new and expanding markets.* We intend to aggressively market a broad range of innovative products for applications in new and expanding markets. For example, our current research and development, marketing and acquisition initiatives have been aimed at creating technologies and systems suited to the technology-driven life science market, which we believe will continue to expand in the post-genomic era and represent an increasing part of our business. We intend to continue to identify other market opportunities and apply our resources appropriately, as we recently did with biomarker identification and small molecule material research applications.

*Generating recurring revenue and customer loyalty through world class customer support.* We strive to provide world class support to our customers as part of our strategy to enhance the Bruker brand and maintain customer loyalty. The importance we place on customer support is evidenced by the fact that our customer support personnel is highly-educated and well-trained. In addition to the benefits in brand enhancement and customer loyalty, customer support also generates recurring revenues. As our installed base of systems increases, we expect that the high-margin revenue generated from post-warranty customer service will expand as well. We also plan to increase our recurring revenues as our installed base of systems increases by selling more consumables and replacement parts.

*Providing complementary and modular technologies.* In life science and other areas, we plan to offer complementary mass spectrometry and X-ray technologies to meet the full range of our customers' molecular analysis and matter characterization needs. Our three core X-ray technology applications, SCD, XRD and XRF, complement each other, as do our four core mass spectrometry platforms of MALDI-TOF, ESI-TOF, FTMS and ITMS, and we plan to expand our customers' ability to use the various technologies in an integrated manner within the same laboratory. Capitalizing on the benefits of our modular platform technology, we plan to continue to offer our customers a modular

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technology approach. Our modular approach permits us to provide individual customers with a customized application through varied combinations of already existing product modules. By taking advantage of the modular capabilities of our technology, we can respond more quickly to the changing technological needs of the market and of our customers while minimizing development expenses and delays.

*Pursuing acquisitions and building alliances.* We plan to continue to pursue acquisitions and build alliances with strategic partners in order to expand our technology base and product offerings, increase our market share and strengthen other key corporate competencies. For example, through our Nonius acquisition, we gained a high powered rotating anode technology as well as additional high-quality research and development talent. Additionally, through our collaboration with Agilent, we and Agilent have jointly developed and distribute ion trap instrumentation, through our alliance with Sequenom, we and Sequenom jointly developed industrial genomics tools for high throughput SNP analysis and through our alliance with Discovery Partners International, we combine our PROTEUM X-ray system, our MICROSTAR X-ray source and our BruNo robotic sample handler with Discovery Partners' Crystal Farm to create a complete system to produce and evaluate protein crystal structures. We also plan to continue to capitalize on collaborations with our affiliates. In 2004 we announced the development, with Bruker BioSpin Corporation, of a metabolic profiler which combines the strengths of nuclear magnetic resonance, or NMR, and time-of-flight, or TOF, mass spectrometry. We also announced in 2004 the development, in connection with Bruker BioSpin, of Proteomics RIMS, a bioinformatics solution that combines and integrates the data, information and knowledge generated in the proteomics research workflow from complementary mass spectrometry NMR, surface plasmon resonance (with our partner Biacore) and X-ray crystallography technologies.

## Products

### Bruker Daltonics

#### *Mass Spectrometry*

Bruker Daltonics has developed a suite of mass spectrometry instruments that address a wide range of life sciences applications. Mass spectrometry has become the method of choice for primary structure analysis, including the determination of amino acid sequence and post-translational modifications. Mass spectrometry is thus a key enabling technology of the expression proteomics laboratory. Mass spectrometers are also increasingly used for the discovery of peptide, protein or metabolite biomarkers and panels or patterns of biomarkers. These biomarkers can be used for toxicity screening or to assess drug efficacy in pre-clinical trials in pharmaceutical drug development. They are also used in clinical research and validation studies, at this time still for research use only, in an effort to develop the emerging field of protein molecular diagnostics.

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Mass spectrometers are devices for measuring the mass, or weight, of intact molecules and of fragments of molecules which can provide structural information on the molecule. Mass spectrometry systems employ an ionization source which creates charged molecules and a mass separation/detection component that separates these charged molecules on the basis of mass to detect their presence and quantity. Mass spectrometry has been used in physics and chemistry for over fifty years. Over the past fifteen years, mass spectrometry has emerged as a powerful research tool in the life sciences. For example, mass spectrometers can determine the identity, amount, structure, sequence and other biological properties of small molecules, like drug candidates and metabolites, as well as large biomolecules, like proteins and DNA. Sales of life science mass spectrometry systems contributed revenue of \$105.0 million, \$81.4 million and \$67.5 million in 2003, 2002 and 2001, respectively.

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Bruker Daltonics' life science solutions are based on the following four core mass spectrometry technology platforms:

**MALDI-TOF** Matrix-assisted laser desorption ionization time-of-flight mass spectrometry, including tandem time-of-flight systems (MALDI-TOF/TOF);

**ESI-TOF** Electrospray ionization time-of-flight spectrometry, including tandem mass spectrometry systems based on ESI-quadrupole-TOF mass spectrometry (ESI-Q-q-TOF);

**FTMS** Fourier transform mass spectrometry, including hybrid systems with a quadrupole front end (Q-q-FTMS); and

**ITMS** Ion trap mass spectrometry.

Time-of-flight spectrometers measure mass based on the time it takes for charged molecules to travel from the ionization source to the detection component. With the ability to analyze as many as 100,000 samples per day, these mass spectrometers currently have the highest sample throughput and can analyze the broadest range of masses of any mass spectrometer for use in the fields of genomics and proteomics. Our time-of-flight mass spectrometry solutions make full use of this potential for increased speed by automating various steps of the analysis. Our time-of-flight solutions combine high sensitivity, accuracy and throughput to generate large volumes of accurate raw data for detection of genetic variations such as single nucleotide polymorphisms, or SNPs, as well as for peptide analysis and proteomics in general.

**MALDI-TOF** mass spectrometers utilize an ionization process to analyze solid samples using a laser that combines high sample throughput with high mass range and excellent sensitivity. Our MALDI-TOF mass spectrometers are useful for: (a) SNP analysis; (b) protein identification; (c) peptide de novo sequencing; (d) determination of post-translational modifications of proteins; (e) interaction proteomics and protein function analysis; (f) drug discovery and development; and (g) fast body fluid and tissue biomarker detection. We offer the following MALDI-TOF instruments:

Product	Description	Product Introduction
microflex	Compact and affordable high-performance, research-grade benchtop MALDI-TOF mass spectrometer with gridless design of reflectron and microScout ion source for expression proteomics and clinical proteomics	2004
autoflex II	MALDI-TOF instrument designed for industrial biology, used in SNP analysis and proteomics. Incorporates various performance, electronics and software enhancements, and can be optionally upgraded on-site to full TOF/TOF capabilities	2004
autoflex II TOF/TOF	Vertical and relatively compact system which enables high throughput routine protein identification by MALDI-TOF peptide mass fingerprinting, immediately followed by more detailed protein characterization using MALDI-TOF/TOF tandem mass spectrometry on the same sample	2004
autoflex TOF/TOF	High throughput routine protein identification by MALDI-TOF peptide mass fingerprinting, immediately followed by more detailed protein characterization using	2003

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Product	Description	Product Introduction
	MALDI-TOF/TOF tandem mass spectrometry on the same sample	
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Compact MassArray	A bench-top, medium throughput linear MALDI-TOF for various DNA analysis methods, designed and manufactured by us for distribution by Sequenom	2003
ultraflex	High resolution, high sensitivity and high throughput protein identification by MALDI-TOF for expression proteomics and clinical proteomics	2002
OmniFLEX LT	Entry-level benchtop MALDI-TOF MS for use in pharma/biotech manufacturing and QA/QC	2002
ultraflex TOF/TOF	High throughput protein identification by MALDI-TOF using peptide mass fingerprinting, followed by more detailed protein characterization via further fragmentation and secondary TOF/TOF detection	2001
OmniFLEX	Benchtop system for sensitive and accurate measurement of various biomolecules in clinical, diagnostic and laboratory settings	2000

These products utilize our AnchorChip microarrays that prepare samples for analysis. These microarrays employ patented microfluidics technology that improves sensitivity and reduces analysis time per sample by concentrating, or "anchoring", the sample in a precisely defined location.

**ESI-TOF** mass spectrometers utilize an ionization process to analyze liquid samples. This gentle ionization process, which does not dissociate the molecules, allows for rapid data acquisition and analysis of large biological molecules. ESI-TOF mass spectrometers are useful for: (a) identification, protein analysis and functional complex analysis in proteomics and protein function; (b) molecular identification in metabolomics, natural product and drug metabolite analysis; (c) combinatorial chemistry high throughput screening, or HTS; and (d) fast liquid chromatography mass spectrometry, or LC/MS, in drug discovery and development. We offer the following ESI-TOF instruments:

Product	Description	Product Introduction
microTOF FOCUS	For use with the microTOF bench-top ESI-TOF system, Focus utilizes multiple advances 20 in TOF ion optics and ion detection to increase the resolution of bench-top ESI-TOF systems to 15k across the mass spectrum	2004
Metabolic Profiler NMR/TOF	Combines the structural and quantitative strengths of nuclear magnetic resonance, or NMR, and the sensitivity and exact mass capabilities of ESI-TOF mass spectrometry in an integrated hardware and processing software platform to create an integrated system for metabolic research and drug development. This system is co-marketed by us and our affiliate Bruker BioSpin, and we have no rights to the NMR part of this system, but we retain full rights to the ESI-TOF part of the system	2004
BioTOF III-Q	Next generation ESI-TOF and ESI-Q-q-TOF with twice the standard resolution of other Q-q-TOF systems	2003
microTOF	Benchtop ESI-TOF system with high resolution of 10,000 across a broad mass range for small molecule accurate mass measurement and molecular formula determination, as well as peptide biomarker discovery from plasma and serum samples	2003

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**FTMS** systems utilize high-field superconducting magnets to offer the highest resolution, selectivity, and mass accuracy currently achievable in mass spectrometry. Our systems based on this technology often eliminate the need for time-consuming separation techniques in complex mixture analyses. In addition, our systems can fragment molecular ions to perform exact mass analysis on all fragments to determine molecular structure. FTMS systems are useful for: (a) the study of structure and function of biomolecules including proteins, DNA and natural products; (b) complex mixture analysis including body fluids or combinatorial libraries; (c) high throughput proteomics and metabonomics; and (d) top-down proteomics of intact proteins without the need for enzymatic digestion of the proteins prior to analysis. Since 2003, we have offered next-generation hybrid FTMS systems which combine a traditional external quadrupole mass selector and hexapole collision cell, with a high-performance FTMS for further ion dissociation, top-down proteomics tools, and ultra-high resolution detection. We offer the following FTMS systems:

Product	Description	Product Introduction
APEX -QE	Easy-to-use, more compact 7 Tesla hybrid Q-q-FTMS proteomics platform with integrated electron capture dissociation tools for "top-down" proteomics, in which intact proteins are analyzed, and "bottom-up" proteomics, which involves enzymatically digesting proteins into peptides and identifying the protein from measurement of the peptides	2004
APEX-Q	Q-q-TOF front-end and high-field FTMS magnet of 7, 9.4 or 12 Tesla for ultra-high resolution proteomics	2003
APEX IV	Compact, ultra-high resolution FTMS system for small molecule analysis. Customizable with several magnetic fields ranging from 4.7-12 Tesla	2002

**ITMS** systems measure all ions simultaneously which improves sensitivity relative to older quadrupole mass spectrometers. Ion trap mass spectrometers are useful for: (a) sequencing and identification based on peptide structural analysis; (b) quantitative liquid chromatography mass spectrometry; (c) identification of combinatorial libraries; and (d) generally enhancing the speed and efficiency of the drug discovery and development process. We offer the following ITMS systems:

Product	Description	Product Introduction
esquire6000	Ion trap system provides standard and high-performance MS and MS(n) for liquid chromatography mass spectrometry applications in drug discovery, drug development, academic research and general LC/MS/MS with an m/z range up to 6,000	2004
esquire4000	Similar to the esquire6000, but with an m/z range up to 4,000	2004
HCTplus	Next generation high capacity trap, or HCT, with further enhanced ion transmission, storage and detection capabilities and very fast scan speeds	2004
HCT	Combines high ion storage capacity with very fast scan modes for small molecule analysis as well as proteomics	2003
LCD/MSD Trap (sold by Agilent)	Various OEM ion traps sold by Agilent	2001-2004

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**Solutions packages** and sample preparation robots are designed to enhance throughput of genomics, proteomics and metabonomics analysis. Sales of Bruker Daltonics solutions packages and sample preparation robots are included in sales of our four mass spectrometry platforms, as well as partly in our aftermarket business (see Bruker Daltonics' Aftermarket). We offer the following solution packages:

Product	Description	Product Introduction
Proteomics RIMS	Combines and integrates the data, information and knowledge generated in the proteomics research workflow from complementary mass spectrometry, surface plasmon	2004

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Product	Description	Product Introduction
	resonance, NMR and X-ray crystallography technologies.	
ClinProt	This software product is jointly developed, owned and distributed by us and our affiliate Bruker BioSpin Provides a set of tools for the preparation, measurement and visualization of peptide and protein biomarkers for clinical proteomics	2003
PROTEINEER	Integrates our mass spectrometers with robotics and bioinformatics to deliver maximum productivity in high throughput and high-information content expression proteomics, including spot picking from 2-D gels into 96 and 384 micro well plates, automated digestion of proteins, sample preparation for mass spectrometric analysis, and data interpretation	2002
PROTEINEER sp	The PROTEINEER sp robot enables automated spot picking from 2D gels into 96 and 384 micro well plates	2002
PROTEINEER dp	The PROTEINEER dp robot enables automated protein digestion and preparation of AnchorChip targets for subsequent MALDI-TOF analysis	2002
ProteinScope	Organizes all relevant data for larger expression proteomics projects 2 including gel data, mass spectra, process parameters, and search results	2002
GENOLINK	Expands PROTEINEER into an integrated analytical platform for functional genomics. The linked platform supports combined genetics, gene expression and proteomics approaches for discovering disease markers and drug targets	2001

***Nuclear, Biological and Chemical (NBC) Detection***

We sell a wide range of portable analytical and bioanalytical detection systems and related products for NBC detection. Our customers use these devices for nuclear, biological agent and chemical agent defense applications, anti-terrorism, law enforcement and process and facilities monitoring. Our NBC detection products use many of the same technology platforms as our life science products, as well as some completely different technologies, such as infrared remote detection, or ion mobility spectrometry for handheld chemical detectors. For example, we developed our esquire products using the same ion trap technology used in our chemical and biological mass spectrometers. We also provide integrated, comprehensive detection suites which include our multiple detection systems, consumables, training and simulators. Sales of NBC detection systems contributed revenue of

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\$12.9 million, \$17.6 million and \$9.0 million in 2003, 2002 and 2001, respectively. Our related products, all of which were introduced prior to 2004, include:

Product	Description
CBMS (Chemical/Biological MS)	Mobile ion trap MS for automated classification of biological pathogens and identification of chemical agents
MM-1 (Mobile MS)	Mobile MS for automatic detection of chemical substances
RAID Series	Portable and stationary automated ion mobility detectors for chemical agent detection
EM640 Series	Transportable MS for emergency response
Viking 573	Portable gas chromatography MS for law enforcement

<b>Product</b>	<b>Description</b>
RAPID/HAWK	Long-range infrared detector for chemical substance clouds
SVG-2	Solid-state radiation detector
NIGAS	Non-intrusive neutron activation detector for chemical component analysis in closed containers and old artillery ammunitions
OPAG 22	Remote infrared sensor for atmospheric pollutants
APSYS	Systems for PCR amplification of DNA for the identification of bacterial and viral biological warfare agents

### ***Bruker Daltonics' Aftermarket***

In addition to new system sales, Bruker Daltonics generates revenue from consumables, automation and separation products, training and services, and bioinformatics and software. Bruker Daltonics aftermarket sales contributed revenue of \$27.6 million, \$17.0 million and \$15.1 million in 2003, 2002 and 2001, respectively.

Consumables provide an increasing recurring revenue stream as our installed systems base grows. We sell consumables for processing, purifying and preparing samples prior to mass spectrometric analyses as well as consumables for collecting samples for NBC detection.

Following our standard twelve-month warranty, we also generate service revenues from our customers through service contracts, repair calls, training and other support services. Service revenue is generated either through post-warranty service contracts or on-demand service calls. The number of customers entering into service contracts varies by geographic region. Additionally, for Bruker Daltonics' NBC detection systems, we have developed training products, including complete system simulator installations.

In addition to providing service, consumables and replacement parts, we generate recurring revenue through the sale to our customers of a variety of accessory items. Among other things, we have introduced automated control software to integrate separation devices and robotics into our solutions, we provide bioinformatics software to generate useable information from large volumes of raw data, and we offer intuitive data acquisition and analysis software on a Windows NT platform to make our systems accessible to non-experts. Finally, we provide system upgrades to customers who desire to upgrade, rather than replace, older systems.

## **Bruker AXS**

### ***Analytical X-ray***

Bruker AXS' X-ray systems integrate powerful detectors with advanced X-ray sources, computer-controlled positioning systems, sample handling devices and data collection and analysis software to acquire, analyze and manage elemental and molecular information. These integrated solutions address many of the matter characterization and structure needs of the life science, pharmaceutical, raw material and research industries across a broad range of applications. We provide high speed, sensitive systems for a variety of areas, including three-dimensional structure determination, protein crystal screening and molecular structure determination for the emerging structural proteomics market as well as the small molecule drug discovery market. Additionally, we provide high-speed, automated systems for elemental analysis as well as high throughput, cost-effective systems for other areas, including combinatorial screening. We also sell other systems such as thermal analyzers. Sales of analytical X-ray and other systems contributed revenue of \$79.7 million, \$78.8 million and \$60.4 million, in 2003, 2002 and 2001, respectively.

Bruker AXS' systems are based on the following three core X-ray technology applications:

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**SCD** Single crystal X-ray diffraction, often referred to as X-ray crystallography;

**XRD** Polycrystalline X-ray diffraction, often referred to using the term X-ray diffraction; and

**XRF** X-ray fluorescence, also called X-ray spectrometry.

**SCD** systems determine the three-dimensional structures of molecules in the chemical, mineral or biological substance being studied. SCD systems have the capability to determine structure in both small chemical molecules and larger biomolecules. SCD systems direct an X-ray beam at a solid, single crystal sample. The atoms in the crystal sample scatter the X-rays to create a precise diffraction pattern recorded by an electronic detector. Software then reconstructs a model of the structure and provides the unique arrangement of the atoms in the sample. This information on the exact arrangement of atoms in the sample is a critical part of molecular analysis and can provide insight into a variety of areas, including how a protein functions or interacts with a second molecule. Our SCD systems combine high sensitivity and rapid data collection to quickly generate accurate structures for use in the life sciences industry, academic research and a variety of other applications.

Product	Description	Product Introduction
Proteomics RIMS	Proteomics RIMS combines and integrates the data, information and knowledge generated in the proteomics research workflow from complementary mass spectrometry, surface plasmon resonance, NMR and X-ray crystallography technologies. This software product is jointly developed, owned and distributed by us and our affiliate Bruker BioSpin	2004
APEX II CCD	Next generation CCD detector, developed in collaboration with Fairchild Imaging Systems exclusively for use in our instruments, with lower noise, higher sensitivity and wider dynamic range as well as electronics which are user selectable for ultra-fast or ultra-low noise readout	2004
SMART APEX II	Next generation system, with three-axis goniostat and APEX II CCD, for structural determination of small molecules	2004

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KAPPA APEX II	Next generation system, with flexible four-axis kappa goniostat and APEX II CCD, for structural determination of small molecules	2004
Discovery Partners' Crystal Farm	Integrated incubation and imaging system for high throughput protein crystallization automation. Bruker AXS is the worldwide distributor for Discovery Partners' Crystal Farm line of protein crystallography products. The Crystal Farm is combined with Bruker AXS' PROTEUM X-ray system, MICROSTAR X-ray source and BruNo robotic sample handler to create a complete system to produce and evaluate protein crystal structures	2003
MICROSTAR	High brilliancy X-ray source for structural biology applications in home lab environment	2003
X8 APEX	Highly sensitive APEX detector with four-axis kappa goniometer for 3D structure determination of small molecules such as drugs	2002
X8 PROTEUM	Rotating anode generator based lab system with highest sensitivity CCD detector and four-axis kappa goniometer for 3-D structural determination of biological macromolecules	2002

Explanation of Responses:

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BruNo Robotics	Robotic sample handling of frozen protein crystals for high throughput screening and data collection	2002
Montel 200 Optics	X-ray optics coupled with high power laboratory X-ray sources for structural proteomics applications	2002
PROTEUM SW suite	WINDOWS based software for protein data acquisition and analysis	2001
PROTEUM 300	Large 300mm diameter lens-coupled CCD detector for structural proteomics and synchrotron applications	2001
PROTEUM R	Rotating anode generator based lab system with SMART 6000 detector system for biological crystallography	2000
SMART APEX	Highly sensitive APEX detector with three-axis D8 goniometer for 3-D structural determination of small molecules	1999
KAPPA CCD	Kappa goniometer-based 90 mm CCD system for 3-D structural determination of small molecules	1996
FR 591	9 and 15 KW high power X-ray source for high intensity X-ray beam for structural proteomics applications	1994

**XRD** systems direct single wavelength X-rays at a polycrystalline sample. The atoms in the polycrystalline sample scatter the X-rays to create a unique diffraction pattern recorded by a detector. Computer software processes the pattern and produces many different types of information, including stress, texture, qualitative and quantitative phase composition, crystallite size, percent crystallinity and layer thickness, composition, defects and density of thin films and semiconductor material. Our XRD systems combine modular, high precision and high quality ergonomic designs with broad applications for use in basic research and industrial process control. They contribute to a reduction in the

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development cycles for new products in the catalyst, polymer, electronic, optical material and semiconductor industries. Customers also use our XRD systems for analyses in a variety of other fields, including forensics, art and archaeology. We offer the following XRD systems:

<b>Product</b>	<b>Description</b>	<b>Product Introduction</b>
D8 SuperSpeed	High-speed and high throughput analysis based on turbo high power X-ray source technology solutions	2003
VANTEC-1 Detector	New, general purpose high speed detector for all diffraction applications	2003
NanoSTAR	Small angle X-ray scattering for analysis of polymers, biological materials, fibers, and nanopowders in solutions of 10 to 1,000 Angstroms	2003
D8 FOCUS	Entry-level system for quantitative and qualitative powder diffraction applications	2003
D8 ADVANCE	General purpose diffraction system for quantitative and qualitative analysis of polycrystalline samples	2003
D8 DISCOVER , Series II	High resolution diffraction system for semiconductor and thin film analysis	2002
D8 DISCOVER CST	Diffraction system with high-speed 2D detector system for combinatorial screening of libraries in life science and materials	2002

Explanation of Responses:



Product	Description	Product Introduction
	research	
D4 ENDEAVOR	Fully enclosed high throughput general purpose diffraction system for quantitative and qualitative analysis of polycrystalline samples	2001

**XRF** systems determine the elemental composition of a material and provide a full qualitative and quantitative analysis. These systems direct X-rays at a sample, and the atoms in the sample absorb the X-ray energy. The elements in the sample then emit characteristic X-rays which are unique for each element. The system collects the X-rays, and its software analyzes the resulting data to determine the elements which are present. Our XRF products provide complete analysis automation solutions on a turn-key basis in response to the industrial marketplace demand for automated, controlled production processes that reduce product and process cost, increase output and improve product quality. Our XRF products cover substantially all of the periodic table and can analyze solid, powder or liquid samples. In addition, our XRF products require minimal sample preparation. We offer the following XRF systems:

Product	Description	Product Introduction
EQUA ALL	Solutions tool which enables quantification of elements in all concentration ranges when combined with the S2 RANGER	2004
S2 RANGER	All-in-one benchtop ED-XRF spectrometer for elemental analysis	2002
S4 PIONEER	High performance spectrometer for use in demanding process control and quality assurance applications	2001
S4 EXPLORER	High performance plug-and-analyze X-ray fluorescence spectrometer for elemental analysis	1999

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### ***Bruker AXS' Aftermarket***

In addition to new system sales, Bruker AXS generates revenues from sales of service, consumables and related products. Bruker AXS aftermarket sales contributed revenue of \$34.2 million, \$25.5 million and \$22.2 million in 2003, 2002 and 2001, respectively. We believe our high-quality customer service gives us a competitive advantage by enhancing the Bruker AXS brand and customer loyalty.

Given the demands our products face in the field, general maintenance and replacement of consumables such as X-ray tubes and other parts is routine. We supply a large quantity of replacement X-ray tubes to customers over the lives of our systems. Following our standard twelve-month warranty, we also generate service revenues from our customers through service contracts, repair calls, training and other support services. Service revenue is generated either through post-warranty service contracts or on-demand service calls. The number of customers entering into service contracts varies by geographic region.

In addition to providing service, consumables and replacement parts, we generate recurring revenue through the sale to our customers of a variety of accessory items, including sample handling devices, temperature and pressure control devices, enhanced X-ray optics and software packages. Finally, we provide system upgrades to customers who desire to upgrade, rather than replace, older systems.

### **Research and Development**

We commit substantial capital and resources to internal and collaborative research and development in order to provide innovative solutions to our customers. Within Bruker BioSciences, we conduct research primarily to enhance the reliability and performance of existing products and to develop new products. We expensed \$38.0 million, \$30.6 million, and \$26.2 million in 2003, 2002, and 2001, respectively, for research and development purposes.

Our research and development is conducted in the relevant product groups within the Bruker Daltonics and Bruker AXS businesses as well as in collaboration with one another on common topics such as microfluidics, automation and workflow management software.

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Bruker Daltonics maintains technical competencies in core mass spectrometry technologies and capabilities, including MALDI and ESI ion sources; TOF, TOF/TOF, and MS analyzers; microfluidics; automation; and software. Recent projects included:

developing new MALDI and ESI ion sources to solve sensitivity, ease of use and throughput constraints;

improving and coupling mass analyzers for more detailed protein characterization;

improving our microfluidics technology to achieve greater sensitivity in MALDI analyses;

creating more automated solutions for specific proteomics and metabonomics applications; and

developing new software solutions to improve ease of use and data quality.

The research is primarily conducted at our facilities in Billerica, MA, U.S.A., Bremen, Germany, and Leipzig, Germany. Bruker Daltonics accepts some sponsored research contracts from external agencies such as government or private sources. Historically, we have been the recipient of significant government grants from the German government for various projects for early-stage research and development. We have generally retained at least non-exclusive rights to any items or improvements we develop under these grants. The German government requires that we use and market technology developed under grants in order to retain our rights to the technology. In 2003, 2002, and 2001, we

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received government-sponsored research and development grants in the aggregate amounts of \$1.3 million, \$0.2 million, and \$0.9 million.

Bruker AXS maintains technical competencies in core X-ray technologies and capabilities, including detectors used to sense X-ray diffraction patterns; X-ray sources and optics that generate and focus the X-rays; robotics and sample handling equipment which hold and manipulate the experimental material; and software that generates the structural data. Recent projects included:

refining next generation high brilliancy optics and microsources;

developing new X-ray sources for X-ray diffraction and protein crystallography applications;

creating a high sensitivity area detector system; and

developing other solution-based technologies and software application solutions.

Bruker AXS accepts some sponsored research contracts, mainly from private sources. The research is primarily conducted at our facilities in Madison, WI, U.S.A., Karlsruhe, Germany, Delft, the Netherlands, and Yokohama, Japan.

### Customers

We have a broad and diversified global life and materials science customer base. Our life science customer base is composed primarily of end-users and includes pharmaceutical, biotechnology, proteomics, agricultural biotechnology, molecular diagnostics and fine chemical companies, as well as commercial laboratories, university laboratories, medical schools and other not-for profit research institutes and government laboratories. We sell our X-ray materials research products to the above customer groups as well as to a number of semiconductor, polymer, automotive, cement, steel, aluminum and combinatorial materials design companies. Our customers generally do not have a need to buy numerous systems at one time, and historically we have not depended on any single customer in the sale of our systems. No single customer accounted for more than 10% of revenue in any of the last three fiscal years.

## Sales and Marketing

We maintain direct sales forces throughout most of North America, the European Union, and Japan. We have well equipped application and demonstration facilities and qualified application personnel who assist customers and provide product demonstrations in specific application areas. We maintain our primary demonstration facilities at our production facilities as well as in key markets elsewhere.

We also utilize indirect sales channels to reach customers. We have various international distributors and independent sales representatives, including affiliated companies and various representatives in parts of Asia, Latin America, and Eastern Europe. These distributors provide coverage in areas where we do not have direct sales personnel. In addition, we have adopted a distribution business model where we engage in strategic distribution alliances with other companies to address certain market segments. Bruker Daltonics maintains primary distribution alliances with Agilent and Sequenom. As part of its strategic alliance with Agilent, Bruker Daltonics manufactures an ion trap mass spectrometer which Agilent incorporates into its liquid chromatography mass spectrometry systems for distribution into various industrial markets. Through Sequenom, Bruker Daltonics sells high throughput and medium throughput MALDI-TOF mass spectrometers into emerging industrial and clinical genomics markets for high throughput and medium throughput DNA and SNP analysis. Additionally, Bruker AXS is the worldwide distributor for Discovery Partners' Crystal Farm line of protein crystallography products. The Crystal Farm is combined with Bruker AXS' PROTEUM X-ray

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system, MICROSTAR X-ray source and BruNo robotic sample handler to create a complete system to produce and evaluate protein crystal structures.

## Sales Cycle

*Bruker Daltonics.* The typical time between Bruker Daltonics' first customer contact and its receipt of a customer's order for life science systems is three to six months for most product lines. However, this sales cycle can be in excess of a year when a customer must budget the product into an upcoming fiscal year. NBC detection products can have multi-year sales cycles for large production contracts.

*Bruker AXS.* The typical sales cycle for Bruker AXS' products is six to twenty-four months. The sales cycle is twelve to twenty-four months for academic products and six to twelve months for industrial products. The length of Bruker AXS' sales cycles is primarily dependent on the budgeting cycles of its customers.

## Intellectual Property

Our intellectual property consists of patents, copyrights, trade secrets, know-how and trademarks. Protection of our intellectual property is a strategic priority for each segment of our business because of the length of time and expense associated with bringing new products through the development process and to the marketplace. We have a substantial patent portfolio, and we intend to file additional patent applications as appropriate. We believe our owned and licensed patent portfolio provides us with a competitive advantage. This portfolio permits us to maintain access to a number of key technologies. We license our owned patent rights where appropriate. We intend to enforce our patent rights against infringers if necessary.

The patent positions of life science tools companies involve complex legal and factual questions. As a result, we cannot predict the enforceability of our patents with certainty. In addition, we are aware of the existence from time to time of patents in certain countries which, if valid, could impair our ability to manufacture and sell products in these countries. In the ordinary course of our business we receive communications from third parties notifying us of their patent positions and claiming or inferring that we infringe their rights. We review these communications with patent counsel and take such action as we believe is appropriate under the circumstances.

Bruker Daltonics is a party to an agreement dated as of August 10, 1998 with Indiana University's Advanced Research and Technology Institute (IU-ARTI), which is the technology transfer arm of Indiana University, pursuant to which we have been granted an exclusive license to specified patent rights and products including three patents that relate to time-of-flight mass spectrometry. We pay IU-ARTI royalties under this agreement and have agreed to allow IU-ARTI to utilize any improvements that we make to the licensed products for research and educational purposes on a non-exclusive, royalty-free basis. IU-ARTI may terminate the agreement if we default on our obligations or become bankrupt. We may terminate the agreement with six months notice. The license granted by the agreement expires at the later of August 10, 2008 or expiration of the licensed patent rights. In connection with a previous collaboration agreement between Bruker Daltonics and IU-ARTI, IU-ARTI has agreed to perform experiments for Bruker Daltonics, as requested, in exchange for a flat fee and a percentage fee of any sales of products developed for us by IU-ARTI.

Bruker Daltonics is also a party to an agreement with Applied Biosystems Group, an Applied Biosystems Corporation business, and IU-ARTI. The agreement is for the licensing of a portfolio of significant mass spectrometry patents. As part of the agreement, we have been appointed the exclusive agent for licensing this combined intellectual property to the life science industry. These patent portfolios relate to MALDI-TOF mass spectrometry and cover the significant technology called Space-Velocity Correlation Focusing (SVCF), or Delayed Extraction. This technology improves both accuracy and

sensitivity, and is implemented in most modern MALDI-TOF systems. As licensing agent for IU-ARTI's SVCF patents, we have granted Applied Biosystems a sub-license in exchange for multi-year payments. Bruker Daltonics and Applied Biosystems also have cross-licensed each other on their respective patent portfolios related to this technology. In addition, as exclusive licensing agent, Bruker Daltonics has granted Waters Corporation a sub-license for a portfolio of these SVCF patents owned by Indiana University, Applied Biosystems and Bruker Daltonics, in exchange for a one-time technology access fee and multi-year payments.

Bruker Daltonics had been involved in patent litigation with a competitor, Finnigan, a subsidiary of Thermo Electron Corporation, since December 31, 1996. In August 2001, we entered into a comprehensive settlement agreement for this litigation that provided for the dismissal of all pending suits, the waiving of all damages, and a framework of licensing and arbitration for potential future disputes between the companies in the field of ion trap mass spectrometry.

We also rely upon trade secrets, know-how, trademarks, copyright protection and licensing to develop and maintain our competitive position. We generally require the execution of confidentiality agreements by our employees, consultants and other scientific advisors. These agreements provide that all confidential information made known during the course of a relationship with us will be held in confidence and used only for our benefit. In addition, these agreements provide that we own all inventions generated during the course of the relationship.

Our management considers Bruker BioSciences, Bruker Daltonics, Daltonics, Bruker AXS, and AXS to be our material trademarks, all of which are registered in the United States.

We are a party to various government contracts. Under some of these government contracts, the government may receive license or similar rights to intellectual property developed under the contract. However, under government contracts we enter we generally receive no less than non-exclusive rights to any items or technologies we develop.

## Competition

Our existing products and any products that we develop may compete in multiple, highly competitive markets. Many of our potential competitors in these markets have substantially greater financial, technical and marketing resources than we do. They may offer or succeed in developing products that could render our products or those of our strategic partners obsolete or noncompetitive. In addition, many of these competitors have significantly greater experience in the life science market. Our ability to compete successfully will depend on our ability to develop proprietary products that reach the market in a timely manner and are technologically superior to and/or are less expensive, or more cost effective, than other currently marketed products. Current competitors or other companies may possess or develop technologies and products that are more effective than ours. Our technologies and products may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors.

Bruker Daltonics competes with a variety of companies that offer mass spectrometry-based systems along each of our product lines. Bruker Daltonics competitors in the life science area include Applied Biosystems, Amersham Biosciences, Waters, Thermo Electron (which includes Finnigan), Shimadzu/Kratos, Ciphergen, Hitachi, JEOL and various automation companies. Bruker Daltonics' NBC detection markets are highly fragmented, and we compete with a number of companies in this area. The most significant competitor is Smith Detection (UK).

Bruker AXS competes with companies that offer analytical X-ray solutions. Bruker AXS primarily competes with Rigaku (a private Japanese company) and Panalytical (formerly a division of Philips, now a division of Spectris, a public U.K. company). Other competitors produce products based on some of the technology platforms that we utilize; however, none of them produce products utilizing all of our major technology platforms. Some of them have a greater market share than we have in particular technology platform areas.

We also compete with other companies that provide analytical or automation tools based on other technologies. These technologies may prove to be more successful in meeting demands in the markets that our products serve. In addition, other companies may choose to enter our

field in the future. We believe that the principal competitive factors in our markets are technology base applications expertise, product specifications and functionality, marketing expertise, distribution capability, proprietary patent portfolios, cost and cost effectiveness.

### **Manufacturing and Supplies**

Our manufacturing facilities are certified under ISO 9001, the most rigorous of the international quality standards. We manufacture and test our mass spectrometry and NBC detection products at our facilities in Billerica, MA, U.S.A., Bremen, Germany, and Leipzig, Germany. In addition, we manufacture and test our X-ray products at our facilities in Madison, WI, U.S.A., Karlsruhe, Germany, and Yokohama, Japan. Manufacturing processes at our facilities in Germany include all phases of manufacturing, including machining, fabrication, subassembly, system assembly, and final testing. All other facilities primarily perform high-level assembly, system integration, and final testing. We outsource the manufacturing of many major subassemblies. We believe outsourcing enables us to reduce fixed costs and capital expenditures while also providing us with the flexibility to increase production capacity. As part of a restructuring program initiated in the third quarter of 2003, we are presently phasing out production and final test at two smaller production sites in Switzerland and The Netherlands. We expect to complete such phase-out by the middle of 2004.

We purchase material and components from various suppliers that are either standard products or built to our specifications. We obtain some of the components included in our products from a limited group of suppliers or from a single-source supplier for items such as CCD area detectors, X-ray tubes, magnets, ion traps, robotics and infrared optics, among other things. In 1998, Bruker AXS commenced

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collaboration with Fairchild Imaging, Inc. for the development of CCD area detectors for use in chemical and biological X-ray crystallography. While Fairchild Imaging owns the chip included in the detector, Bruker AXS has exclusive rights for use of the chip in the SCD and XRD fields, subject to minimum purchase requirements. Bruker AXS also owns the rights to the camera in which the chip is placed. Bruker AXS has an ongoing collaboration with the Siemens AG X-ray tube division (now Siemens Medical Solutions Vacuum Technology Division) in Germany for the development of X-ray tubes. Bruker AXS is also cooperating with Siemens for the supply of varying types of high power X-ray tubes. Additionally, Bruker AXS has a joint development with Siemens for a lower-power high performance XRF X-ray tube. Bruker AXS has the exclusive right to purchase these lower-power tubes, subject to minimum purchase requirements, until December 2006. Bruker Daltonics purchases approximately 90% of its magnets from a single supplier, Magnex, and also obtains certain key components for the manufacture of its ion traps from Agilent, the sole supplier of these components. In addition, Bruker Optics, an affiliated company, is the sole developer and supplier of certain infrared optics and electronics technology used in Bruker Daltonics' HAWK and RAPID NBC detection systems.

### **Government Contracts**

Although we transact business with various government agencies, we believe that no government contract is of such magnitude that a renegotiation of profits or termination of the contract or subcontracts at the election of the government would have a material adverse effect on our financial results.

### **Government Regulation**

We are required to comply with federal, state, and local environmental protection regulations. We do not expect such compliance to have a significant impact on our capital spending, earnings, or competitive position.

Bruker Daltonics possesses low-level radiation licenses for facilities in Billerica, MA, U.S.A. and Leipzig, Germany. Bruker AXS possesses low-level radiation materials licenses from the Nuclear Regulatory Commission for our facility in Madison, Wisconsin, from the local radiation safety authority, Gewerbeaufsichtsamt Karlsruhe, for our facility in Karlsruhe, Germany, from the local radiation safety authority, Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer, for our facility in Delft, the Netherlands, and from the local radiation safety authority, Kanagawa Prefecture, for our facility in Yokohama, Japan, as well as from various other countries in which we sell our products. The U.S. Nuclear Regulatory Commission also has regulations concerning the exposure of our employees to radiation.

Prior to introducing a product in the U.S., Bruker AXS provides notice to the Food and Drug Administration, or FDA, in the form of a Radiation Safety Abbreviated Report, which provides identification information and operating characteristics of the product. If the FDA finds that the report is complete, it provides us approval in the form of what is known as an accession number. We may not market a product until we have received an accession number. In addition, we submit an annual report to the FDA that includes, among other things, the radiation safety history of all products we sell in the U.S. We are required to report to the FDA incidents of accidental exposure to radiation arising from the manufacture, testing or use of any of our products. We also report to state governments products which we sell in their states. For sales in Germany, we register each system with the local authorities. In some countries where we sell systems, we use the license we obtained from the

federal authorities in Germany to assist us in obtaining a license from the country in which the sale occurs. In addition, as indicated above, we are subject to various other foreign and domestic environmental, health and safety laws and regulations in connection with our operations. Apart from these areas, we are subject to the laws and regulations generally applicable to businesses in the jurisdictions in which we operate.

### **Working Capital Requirements**

To effectively operate our business, we are required to hold significant demonstration inventory and finished goods in-transit. We have well equipped application and demonstration facilities and qualified application personnel who assist customers and provide product demonstrations in specific application areas. We maintain our primary demonstration facilities at our production facilities as well as in key markets elsewhere. In total, we held \$22.6 million and \$19.2 million of demonstration inventory at December 31, 2003 and 2002, respectively. In addition, we recognize revenue upon customer acceptance. Therefore, a significant percentage of our inventory represents systems shipped but not yet accepted by the customer. Such "finished goods in-transit" were \$20.1 million and \$23.4 million at December 31, 2003 and 2002, respectively. There are no credit terms extended to customers that would have a material adverse effect on our working capital.

### **Employees**

As of March 8, 2004, we employed approximately 1,279 full-time and part-time employees worldwide; 260 in the United States and 1,019 employees outside the United States, located primarily in Europe.

### **Properties**

The location and general character of our principal properties by segment as of December 31, 2003 are as follows:

#### *Bruker Daltonics*

Bruker Daltonics' three principal facilities are located in Billerica, Massachusetts, in Bremen, Germany and in Leipzig, Germany. These facilities, which incorporate manufacturing, research and development, application and demonstration, marketing and sales and administration functions for the mass spectrometry and substance detection businesses of Bruker Daltonics, include:

an owned 90,000 square foot facility in Billerica, Massachusetts;

an owned 180,000 square foot facility in Bremen, Germany; and

an owned 60,000 square foot facility in Leipzig, Germany.

We lease additional centers for sales, applications and service support in Fremont, California; Coventry, United Kingdom (Bruker Daltonics Ltd.); Wissembourg, France (Bruker Daltonique S.A.); Stockholm, Sweden (Bruker Daltonics Scandinavia A.B.); Faellanden, Switzerland (Bruker Daltonics GmbH); Yokohama, Japan (Nihon Bruker Daltonics K.K.); Beijing, People's Republic of China, Taipei, Taiwan; Ontario, Canada (Bruker Daltonics Ltd.); Milan, Italy (Bruker Daltonics Italiana SRL); Alexandria, Australia (Bruker Daltonics Pty Ltd.); Singapore (Bruker Daltonics Pte LTD); Bruxelles, Belgium (Bruker Daltonics NV); and Wormer, Netherlands (Bruker Daltonics BV).

#### *Bruker AXS*

Bruker AXS' three principal facilities are in Madison, Wisconsin, Karlsruhe, Germany, and Yokohama, Japan. These facilities, which incorporate manufacturing, research and development, application and demonstration, marketing and sales and administration functions for the analytical X-ray business of Bruker AXS, include:

an owned 43,000 square foot facility in Madison, Wisconsin;

an owned 97,000 square foot facility in Karlsruhe, Germany; and

a leased 15,000 square foot facility in Yokohama, Japan.

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We lease additional centers for sales, applications and service support in: Delft, The Netherlands (Bruker Nonius BV); Congleton, United Kingdom (Bruker AXS Ltd.); Paris, France (Bruker AXS SA); Salzburg, Austria (Bruker AXS GmbH); Milano, Italy (Bruker AXS S.r.L.); Johannesburg, South Africa (Bruker AXS (Pty) Ltd.); São Paulo, Brazil (Bruker AXS do Brasil Ltda.); Singapore (Bruker AXS Pte Ltd.); Geesthacht, Germany (Incoatec GmbH); and Beijing, People's Republic of China (Bruker AXS Representative Office).

### Legal Proceedings

We may, from time to time, be involved in legal proceedings in the ordinary course of business. We are not currently involved in any pending legal proceedings that, either individually or taken as a whole, are reasonably likely in our judgment to materially harm our business, prospects, results of operations or financial condition.

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## DESCRIPTION OF COMMON STOCK

The following summary of our common stock does not purport to be complete. You should read the applicable provisions of Delaware General Corporation Law, our amended and restated certificate of incorporation and our bylaws. This summary is qualified in its entirety by reference to the provisions of our amended and restated certificate of incorporation and bylaws which have been filed with the Securities and Exchange Commission.

### General

As of December 31, 2003, 150,000,000 shares of common stock, par value \$.01 per share, and 5,000,000 shares of blank check preferred stock, par value \$.01 per share were authorized for issuance.

As of December 31, 2003, 86,005,591 shares of our common stock were outstanding, no shares of our preferred stock were issued and outstanding and 6,320,000 shares of our common stock were reserved for issuance under our stock option plan.

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of the stockholders, including the election of directors. Accordingly, holders of a majority of the shares of common stock entitled to vote in any election of directors may elect all of the directors standing for election if they choose to do so. Our amended and restated certificate of incorporation does not provide for cumulative voting for the election of directors. Holders of our common stock are entitled to receive ratably any dividends that may be declared by the board of directors out of funds legally available and are entitled to receive, pro rata, all of our assets available for distribution to such holders upon liquidation. Holders of our common stock have no preemptive, subscription or redemption rights. All outstanding shares of our common stock are, and all of the shares being sold in this offering will be, fully paid and non-assessable.

### Anti-Takeover Effects of Certain Provisions of Our Amended and Restated Certificate of Incorporation, Bylaws and Stock Option Plan

*Amended and Restated Certificate of Incorporation and Bylaws Provisions.* Our amended and restated certificate of incorporation and bylaws include provisions that may have the effect of discouraging, delaying or preventing a change in control or an unsolicited acquisition proposal that a stockholder might consider favorable, including a proposal that might result in the payment of a premium over the market price for the shares held by stockholders. These provisions are summarized in the following paragraphs.

*Classified Board of Directors.* Our amended and restated certificate of incorporation and bylaws provide for our board to be divided into three classes of directors serving staggered, three year terms. The classification of the board has the effect of requiring at least two annual stockholder meetings, instead of one, to replace a majority of the members of the board of directors.

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*Authorized but Unissued or Undesignated Capital Stock.* Our authorized capital stock consists of 150,000,000 shares of common stock and 5,000,000 shares of preferred stock. The authorized but unissued (and in the case of preferred stock, undesignated) stock may be issued by our board of directors in one or more transactions. In this regard, our amended and restated certificate of incorporation grants the board of directors broad power to establish the rights and preferences of authorized and unissued preferred stock. The issuance of shares of preferred stock pursuant to the board of director's authority described above could decrease the amount of earnings and assets available for distribution to holders of common stock and adversely affect the rights and powers, including voting rights, of such holders and may have the effect of delaying, deferring or preventing a change in control. The board of directors does not currently intend to seek stockholder approval prior to any issuance of preferred stock, unless otherwise required by law.

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*Special Meetings of Stockholders.* Our bylaws provide that special meetings of our stockholders may be called only by our board of directors, by our Chairman of the board of directors or by our President. In addition, the President or Secretary shall call a special meeting if requested by a majority of directors.

*Notice Procedures.* Our bylaws establish advance notice procedures with regard to all stockholder proposals to be brought before meetings of our stockholders, including proposals relating to the nomination of candidates for election as directors, the removal of directors and amendments to our amended and restated certificate of incorporation or bylaws. These procedures provide that notice of such stockholder proposals must be timely given in writing to our Secretary prior to the meeting. Generally, to be timely, notice must be received at our principal executive offices no later than the close of business on the 90<sup>th</sup> day nor earlier than the close of business on the 120<sup>th</sup> day prior to the date set forth in the bylaws for the annual meeting. The notice must contain certain information specified in the bylaws.

*Other Anti-Takeover Provisions.* Our Amended and Restated 2000 Stock Option Plan contains provisions which may have the effect of discouraging, delaying or preventing a change in control or unsolicited acquisition proposals. In the event of any (i) sale or conveyance to another entity of all or substantially all of our property and assets, including, without limitation, by way of merger or consolidation, or (ii) change of control, the purchaser may, in his, her or its discretion, deliver to the optionee the same kind of consideration that is delivered to the stockholders as a result of such sale, conveyance or change in control, or the Board may cancel all outstanding options in exchange for consideration in cash or in kind equal to the value of those shares of stock the optionee would have received had the option been exercised (to the extent exercisable) and no disposition of the shares has been made prior to such transaction. Upon receipt of such consideration by the optionee, his or her option shall immediately terminate. The Board also has the power and right to accelerate the exercisability of any options upon such sale, conveyance or change in control.

*Limitation of Director Liability.* Our amended and restated certificate of incorporation and bylaws limit the liability of our directors (in their capacity as directors but not in their capacity as officers) to us or our stockholders to the fullest extent permitted by Delaware law. Specifically, our amended and restated certificate of incorporation provides that our directors will not be personally liable for monetary damages for breach of a director's fiduciary duty as a director, except for liability:

for any breach of the director's duty of loyalty to us or our stockholders;

for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;

under Section 174 of the Delaware General Corporation Law, which relates to unlawful payments of dividends or unlawful stock repurchases or redemptions; or

for any transaction from which the director derived an improper personal benefit.

*Indemnification Arrangements.* Our bylaws provide that our directors and officers shall be indemnified and provide for the advancement to them of expenses in connection with actual or threatened proceedings and claims arising out of their status as such to the fullest extent permitted by the Delaware General Corporation Law.

### Transfer Agent and Registrar



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The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company.

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### SELLING STOCKHOLDERS

Our five largest stockholders are Frank H. Laukien, Dirk Laukien, Isolde Laukien, Jörg Laukien and Marc Laukien. Dirk Laukien, Isolde Laukien, Jörg Laukien and Marc Laukien are the selling stockholders in this offering. Frank H. Laukien, Ph.D., our Chairman, President and Chief Executive Officer, is not selling any shares of common stock in this offering.

As of March 1, 2004, the four selling stockholders held, in the aggregate, 51,069,947 shares, or 59.4%, of our outstanding common stock. They intend to sell 12,000,000 of those shares in this offering. Upon completion of this offering, these selling stockholders will own 43.9% of our common stock, or 41.7% if the underwriters' over-allotment option is exercised in full, and our public float will increase from 24.4% to 40.4% of our outstanding common stock, or 42.7% if the underwriters' over-allotment option is exercised in full. Frank H. Laukien, Ph.D., who is not selling shares in this offering, beneficially owns or controls 13,989,114 shares, or 16.3%, of our common stock as of March 1, 2004. We will not receive any proceeds from the sale of shares by the selling stockholders in this offering.

Based solely upon information furnished to us by the selling stockholders, the following table sets forth the name of each selling stockholder and, as of March 1, 2004, the number and percentage of shares of common stock beneficially owned by each selling stockholder and the number of shares being offered for sale by each selling stockholder. Except as indicated in the footnotes to this table, the persons named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them. You should keep the following points in mind as you read the information in the table:

The amounts and percentage of our common stock beneficially owned by a holder are reported on the basis of the regulations of the SEC that govern the determination of beneficial ownership of securities. Under these regulations, a person or group of persons is deemed to be a "beneficial owner" of a security if that person or group has or shares "voting power," which includes the power to vote or to direct the voting of the security, or "investment power," which includes the power to dispose of or to direct the disposition of the security. In addition, a person is deemed to be the beneficial owner of securities that can be acquired by such person within 60 days from the applicable date, whether upon the exercise of options or otherwise.

The percentage of our common stock outstanding before the offering is based on 86,005,843 shares of our common stock outstanding as of March 1, 2004, and the percentage of our

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common stock outstanding after the offering assumes the sale by us of 3,000,000 shares of our common stock in this offering, including 457,200 shares currently held by us in treasury.

Name of Beneficial Owner	Shares of Common Stock Beneficially Owned Prior to the Offering		Number of Shares Being Offered	Shares of Common Stock Beneficially Owned Upon Completion of the Offering	
	Number	Percentage		Number	Percentage
Dirk Laukien (1) 2634 Crescent Ridge Drive The Woodlands, Texas 77381	13,383,910	15.6%	2,000,000	11,383,910	12.8%
Isolde Laukien Silberstreifen 8 D-76287 Rheinstetten Germany	12,227,111	14.2%	3,333,334	8,893,777	10.0%

Explanation of Responses:

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	<u>Shares of Common Stock Beneficially Owned Prior to the Offering</u>		<u>Shares of Common Stock Beneficially Owned Upon Completion of the Offering</u>	
Jörg Laukien Uhlandstrasse 10 D-76275 Ettlingen- Bruchhausen Germany	12,262,111	14.3%	3,333,333	10.0%
Marc Laukien 809 Harbour Isles Ct. North Palm Beach, FL 33410	13,196,815	15.3%	3,333,333	9,863,482
<b>Totals</b>	<b>51,069,947</b>	<b>59.4%</b>	<b>12,000,000</b>	<b>39,069,947</b>
			<b>43.9%</b>	

(1) Includes 36,300 shares of common stock held by the Dirk D. Laukien Trust for Leah Laukien, dated June 1, 2000.

We and the selling stockholders have granted to the underwriters an over-allotment option as described in "Underwriting." The following table sets forth, as to each selling stockholder, the number of shares subject to the underwriters' over-allotment option as well as the number of shares owned by each selling stockholder and the percentage ownership of each selling stockholder after this offering, assuming the exercise in full of the underwriters' over-allotment option:

<u>Name of Beneficial Holder</u>	<u>Shares of Common Stock Subject to Over-Allotment Option</u>	<u>Shares of Common Stock Beneficially Owned Upon Completion of the Offering</u>	
		<u>Number</u>	<u>Percent</u>
Dirk Laukien(1)	300,000	11,083,910	12.4%
Isolde Laukien	500,000	8,393,777	9.4%
Jörg Laukien	500,000	8,428,778	9.4%
Marc Laukien	500,000	9,363,482	10.5%
<b>Total</b>	<b>1,800,000</b>	<b>37,269,947</b>	<b>41.7%</b>

(1) Includes 36,300 shares of common stock held by the Dirk D. Laukien Trust for Leah Laukien, dated June 1, 2000.

### Certain Relationships

Our five largest stockholders are Frank H. Laukien, Dirk Laukien, Isolde Laukien, Jörg Laukien and Marc Laukien. Isolde Laukien is the mother of Dirk and Marc Laukien. Jörg, Frank, Dirk and Marc are brothers or half-brothers. As described above, Dirk Laukien, Isolde Laukien, Jörg Laukien

and Marc Laukien are the selling stockholders in this offering and Frank H. Laukien, Ph.D., our Chairman, President and Chief Executive Officer, is not selling any shares of common stock in this offering.

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We are affiliated with Bruker Physik AG, Bruker Optics Inc., Bruker BioSpin Invest AG, Techneon AG, Bruker BioSpin Inc. and their respective subsidiaries through common control at the stockholder level, as our five largest stockholders are the controlling stockholders of these entities. We also do business with these entities, including product collaborations and distribution and supply arrangements. For example, the sole supplier of certain infrared optics and electronics technology used in our RAID and HAWK NBC detection products is Bruker Optics. Dirk Laukien is President and Chief Executive Officer of Bruker Optics.

Until October 2002, we subleased our facility in Billerica, Massachusetts from Bruker BioSpin. We paid rent of \$199,000 at \$8.85 per square foot, on a triple net basis, for its sublease of our facility in 2002. Bruker BioSpin leases this facility from Umbrina Realty Trust. Frank H. Laukien, Dirk Laukien and Marc Laukien each own one third of the beneficial interest of Umbrina Realty Trust.

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### UNDERWRITING

We and the selling stockholders are offering the shares of our common stock described in this prospectus through the underwriters named below. Bear, Stearns & Co. Inc., UBS Securities LLC, and SG Cowen Securities Corporation are the underwriters for the offering. Bear, Stearns & Co. Inc. and UBS Securities LLC are the joint book-runners of this offering. We have entered into an underwriting agreement with the underwriters. Subject to the terms and conditions of the underwriting agreement, each of the underwriters has severally agreed to purchase the number of shares of common stock listed next to its name in the following table:

<b>Underwriters</b>	<b>Number of shares</b>
Bear, Stearns & Co. Inc.	
UBS Securities LLC	
SG Cowen Securities Corporation	
<b>Total</b>	<b>15,000,000</b>

The underwriting agreement provides that the underwriters must buy all of the shares if they buy any of them. However, the underwriters are not required to take or pay for the shares covered by the underwriters' over-allotment option described below.

The shares of our common stock to be sold by us and the selling stockholders are offered subject to a number of conditions, including:

receipt and acceptance of our common stock by the underwriters; and

the underwriters' right to reject orders in whole or in part.

In connection with this offering, certain of the underwriters or securities dealers may distribute prospectuses electronically.

We and the selling stockholders have agreed to indemnify the underwriters against certain liabilities, including certain liabilities under the Securities Act. If we and the selling stockholders are unable to provide this indemnification, we have agreed to contribute to payments the underwriters may be required to make in respect of those liabilities.

#### Over-Allotment Option

We and the selling stockholders have granted the underwriters an option to buy up to an aggregate of 2,250,000 additional shares of our common stock. Of these shares, the underwriters may purchase up to 450,000 shares from us and up to 1,800,000 shares from the selling stockholders in the respective amounts set forth under "Selling Stockholders." The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with this offering. The underwriters have 30 days from the date of this prospectus to exercise this option. If the underwriters exercise this option, they will each purchase additional shares approximately in proportion to the amounts specified in the table above, and we and the selling stockholders will sell additional shares in proportion to the maximum number of shares subject to sale by us and them.

#### Commissions and Discounts

Explanation of Responses:

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Shares sold by the underwriters to the public will initially be offered at the public offering price set forth on the cover of this prospectus. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to \$      per share from the public offering price. Any of these securities dealers may resell any shares purchased from the underwriters to other brokers or dealers at a discount of up to \$      per share from the public offering price. If all the shares are not sold at the public

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offering price, the representatives may change the offering price and the other selling terms. Upon execution of the underwriting agreement, the underwriters will be obligated to purchase the shares at the prices and upon the terms stated therein and, as a result, will thereafter bear any risk associated with changing the offering price to the public or other selling terms. Sales of shares made outside of the United States may be made by affiliates of the underwriters.

We and the selling stockholders will share all of the expenses of this offering, including underwriting discounts and commissions, on a pro rata basis, based on the number of shares of common stock being sold by us and by the selling stockholders in this offering. The following table shows the per share and total underwriting discounts and commissions we and the selling stockholders will pay to the underwriters assuming both no exercise and full exercise of the underwriters' option to purchase up to an additional 2,250,000 shares.

	Paid by Us		Paid by Selling Stockholders		Total	
	No Exercise	Full Exercise	No Exercise	Full Exercise	No Exercise	Full Exercise
Per share	\$	\$	\$	\$	\$	\$
Total	\$	\$	\$	\$	\$	\$

We estimate that the total expenses of this offering payable by us and the selling stockholders, not including the underwriting discounts and commissions, will be approximately \$650,000.

### No Sales of Similar Securities

We, most of our executive officers, each of our directors and each selling stockholder have entered into lock-up agreements with the underwriters. Under these agreements, subject to certain exceptions, we and each of these persons may not, without the prior written approval of Bear, Stearns & Co. Inc. and UBS Securities LLC, offer, sell, contract to sell or otherwise dispose of, directly or indirectly, or hedge our common stock or securities convertible into or exchangeable for our common stock. The restrictions will be in effect for a period of 180 days after the date of this prospectus. At any time and without public notice, Bear, Stearns & Co. Inc. and UBS Securities LLC may, in their sole discretion, release all or some of the securities from these lock-up agreements.

### The Nasdaq National Market Quotation

Our common stock is quoted on The Nasdaq National Market under the symbol "BRKR."

### Price Stabilization, Short Position

In connection with this offering, the underwriters may engage in activities that stabilize, maintain or otherwise affect the price of our common stock, including:

stabilizing transactions;

short sales;

purchases to cover positions created by short sales;

imposition of penalty bids; and

syndicate covering transactions.

Stabilizing transactions consist of bids or purchases made for the purpose of preventing or retarding a decline in the market price of our common stock while this offering is in progress. These transactions may also include making short sales of our common stock, which involve the sale by the

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underwriters of a greater number of shares of common stock than they are required to purchase in this offering, and purchasing shares of common stock in the open market to cover positions created by short sales. Short sales may be "covered short sales," which are short positions in an amount not greater than the underwriters' over-allotment option referred to above, or may be "naked short sales," which are short positions in excess of that amount.

The underwriters may close out any covered short position by either exercising their over-allotment option, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option.

Naked short sales are sales made in excess of the shares covered by the over-allotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market that could adversely affect investors who purchased in this offering.

The underwriters also may impose a penalty bid. This occurs when a particular underwriter is required to repay to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of that underwriter in stabilizing or short covering transactions.

As a result of these activities, the price of our common stock may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time. The underwriters may carry out these transactions on The Nasdaq National Market, in the over-the-counter market or otherwise.

In addition, in connection with this offering, certain of the underwriters (and selling group members) may engage in passive market making transactions in the common stock on the NASDAQ National Market prior to the pricing and completion of the offering. Passive market making consists of displaying bids on the NASDAQ National Market no higher than the bid prices of independent market makers and making purchases at prices no higher than these independent bids and effected in response to order flow. Net purchases by a passive market maker on each day are limited to a specified percentage of the passive market maker's average daily trading volume in the common stock during a specified period and must be discontinued when such limit is reached. Passive market making may cause the price of the common stock to be higher than the price that otherwise would exist in the open market in the absence of such transactions. If passive market making is commenced, it may be discontinued at any time.

#### **Affiliations**

Certain of the underwriters and their affiliates have provided in the past and may provide from time to time certain commercial banking, financial advisory, investment banking and other services for us for which they will be entitled to receive separate fees.

The underwriters and their affiliates may from time to time in the future engage in transactions with us and perform services for us in the ordinary course of their business.

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#### **LEGAL MATTERS**

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The validity of common stock offered is being passed upon for us by Nixon Peabody LLP, Boston, Massachusetts. Richard M. Stein, a partner of Nixon Peabody LLP, is a director and Secretary of Bruker BioSciences. Dewey Ballantine LLP, New York, New York, is counsel for the underwriters in connection with the offering.

### EXPERTS

Ernst & Young LLP, independent auditors, have audited our consolidated financial statements and schedule included in our Annual Report on Form 10-K for the year ended December 31, 2003, as set forth in the report, which is incorporated by reference in this prospectus and elsewhere in this registration statement. Their report, insofar as it relates to the amounts included for Bruker AXS Inc. for the two years ended December 31, 2002, is based solely on the report of PricewaterhouseCoopers LLP, independent auditors. Our financial statements and schedule are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

The audited financial statements of Bruker AXS Inc., not separately presented in this prospectus, have been audited by PricewaterhouseCoopers LLP, independent accountants, whose report thereon is incorporated herein. Such financial statements, to the extent they have been included in the financial statements of Bruker Biosciences Corporation, have been so incorporated in reliance on the report of such independent accountants given on the authority of said firm as experts in auditing and accounting.

### WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC under the Securities Exchange Act of 1934. You may read and copy any document we file at the SEC's Public Reference Room located at 450 Fifth Street, N.W., Washington, D.C. 20549. You may obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330. Our SEC filings also are available from the SEC's Internet site at <http://www.sec.gov>, which contains reports, proxy and information statements, and other information regarding issuers that file electronically.

The SEC allows us to "incorporate by reference" into this prospectus the information we file with them, which means that we can disclose important information to you by referring you to those documents. Any statement contained or incorporated by reference in this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein, or in any subsequently filed document which also is incorporated by reference herein, modifies or supersedes such earlier statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus. We incorporate by reference the documents listed below:

our Annual Report on Form 10-K for the fiscal year ended December 31, 2003, filed on March 15, 2004; and

our Registration Statement on Form 8-A, filed on June 20, 2000.

All documents we file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and before all of the common stock offered by this prospectus is sold are incorporated by reference in this prospectus from the date of filing of the documents, except for information furnished under Item 9 and Item 12 of Form 8-K, which is not deemed filed and not incorporated by reference herein. Information that we file with the SEC will automatically update and may replace information in this prospectus and information previously filed with the SEC.

Statements contained in this prospectus as to the contents of any contract, agreement, or other document to which we make reference are not necessarily complete. In each instance, if we have filed a copy of such contract, agreement, or other document as an exhibit to the registration statement, you should read the exhibit for a more complete understanding of the matter included. Each statement regarding a contract, agreement, or other document is qualified in all respects by reference to the actual document.

You may obtain any of these incorporated documents from us without charge, excluding any exhibits to these documents unless the exhibit is specifically incorporated by reference in such document, by requesting them from us in writing or by telephone at the following address:

Bruker BioSciences Corporation  
40 Manning Road  
Billerica, Massachusetts 01821  
Attention: Investor Relations  
(978) 663-3660, ext. 1411

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**15,000,000 SHARES**

**BRUKER BIOSCIENCES CORPORATION**

**COMMON STOCK**

**PROSPECTUS**

**BEAR, STEARNS & CO. INC.**

**UBS INVESTMENT BANK**

**SG COWEN**

, 2004

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**PART II**  
**INFORMATION NOT REQUIRED IN PROSPECTUS**

**Item 14. Other Expenses of Issuance and Distribution.**

The following table sets forth the various expenses payable by the Registrant and the selling stockholders in connection with the distribution of the securities being registered. All of the amounts shown are estimated except the Securities and Exchange Commission registration fee. All expenses shall be effected on a pro rata basis among the selling stockholders of Bruker BioSciences based on the number of shares sold by each in this offering.

SEC registration fee	\$	11,344
NASD fee	\$	9,453
Printing expenses	\$	170,000
Transfer agent fees and expenses	\$	3,500
Legal fees and expenses	\$	300,000
Accounting fees and expenses	\$	115,000
Miscellaneous fees and expenses	\$	40,703

Explanation of Responses:

Total

\$ 650,000

**Item 15. Indemnification of Directors and Officers.**

Section 145(a) of the General Corporation Law of the State of Delaware ("Delaware Corporation Law") provides, in general, that a corporation shall have the power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, other than an action by or in the right of the corporation, because the person is or was a director or officer of the corporation. Such indemnity may be against expenses, including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding, if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation and if, with respect to any criminal action or proceeding, the person did not have reasonable cause to believe the person's conduct was unlawful.

Section 145(b) of the Delaware Corporation Law provides, in general, that a corporation shall have the power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor because the person is or was a director or officer of the corporation, against any expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to be indemnified for such expenses which the Court of Chancery or such other court shall deem proper.

Section 145(g) of the Delaware Corporation Law provides, in general, that a corporation shall have the power to purchase and maintain insurance on behalf of any person who is or was a director or officer of the corporation against any liability asserted against the person in any such capacity, or arising out of the person's status as such, whether or not the corporation would have the power to indemnify the person against such liability under the provisions of the law.

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Article 10 of the Registrant's By-laws requires indemnification to the fullest extent permitted under Delaware law of any person who is or was a director or officer of the Registrant who is or was involved or threatened to be made so involved in any proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such person is or was serving as a director, officer, employee or agent of the Registrant or was serving at the request of the Registrant as a director, officer, employee or agent of any other enterprise.

The foregoing statements are subject to the detailed provisions of Section 145 of the Delaware Corporation Law and Article VII of the By-laws of the Registrant.

**Item 16. Exhibits and Financial Statement Schedules.**

(a)

Exhibits

The following exhibits are filed herewith or incorporated by reference.

<b>Exhibit Number</b>	<b>Exhibit Description</b>
1.1	Form of Underwriting Agreement. (1)
3.1	Amended and Restated Certificate of Incorporation of Bruker BioSciences Corporation. (2)
3.2	Bylaws of Bruker BioSciences Corporation. (2)
4.1	Specimen Common Stock Certificate. (3)



Exhibit Number	Exhibit Description
5.1	Opinion of Nixon Peabody LLP. (1)
23.1	Consent of Nixon Peabody LLP (included in Exhibit 5.1).
23.2	Consent of Ernst & Young LLP.
23.3	Consent of PricewaterhouseCoopers LLP.
24.1	Powers of Attorney (included on the signature page).

- (1) To be filed by amendment.
- (2) Previously filed with the SEC as an annex to and incorporated herein by reference from our Registration Statement on Form S-4, filed on May 1, 2003, as amended May 19, 2003, File No. 333-104885.
- (3) Previously filed herewith on March 19, 2004.

**Item 17. Undertakings.**

(a) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(b) The undersigned registrant hereby undertakes that:

- (1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as a part of this registration statement in reliance

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upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be a part of this registration statement as of the time it was declared effective.

- (2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant

will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

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**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the Town of Billerica, Commonwealth of Massachusetts, on April 5, 2004.

BRUKER BIOSCIENCES CORPORATION

By: /s/ FRANK H. LAUKIEN

Frank H. Laukien, Ph.D.  
*Chairman, President and Chief Executive Officer*

**POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Frank H. Laukien and Laura Francis, and each or either of them, his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement on Form S-3 and to sign any registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) of the Securities Act of 1933, and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the foregoing, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or either of them, or their or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Name	Title	Date
/s/ FRANK H. LAUKIEN <hr/> Frank H. Laukien, Ph.D.	Chief Executive Officer and Director ( <i>Principal Executive Officer</i> )	April 5, 2004
/s/ LAURA FRANCIS <hr/> Laura Francis, CPA	Chief Financial Officer ( <i>Principal Financial and Accounting Officer</i> )	April 5, 2004
/s/ M. CHRISTOPHER CANAVAN, JR.* <hr/> M. Christopher Canavan, Jr.	Director	April 5, 2004
/s/ TAYLOR J. CROUCH* <hr/> Taylor J. Crouch	Director	April 5, 2004

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/s/ DANIEL S. DROSS*	Director	April 5, 2004
Daniel S. Dross		
/s/ COLLIN J. D'SILVA*	Director	April 5, 2004
Collin J. D'Silva		
/s/ DR. MARTIN HAASE*	Director	April 5, 2004
Dr. Martin Haase		
/s/ RICHARD D. KNISS*	Director	April 5, 2004
Richard D. Kniss		
/s/ WILLIAM A. LINTON*	Director	April 5, 2004
William A. Linton		
/s/ RICHARD M. STEIN*	Director	April 5, 2004
Richard M. Stein		
/s/ BERNHARD WANGLER*	Director	April 5, 2004
Bernhard Wangler		
*By: /s/ FRANK H. LAUKIEN		
Frank H. Laukien, Ph.D. <i>Attorney-in-fact</i>		

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