

BRUKER CORP
Form 424B3
September 18, 2009

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Filed Pursuant to Rule 424(b)(3)
Registration No. 333-159982

The information in this preliminary prospectus supplement is not complete and may be changed. A registration statement relating to these securities has been declared effective by the Securities and Exchange Commission. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities, and we are not soliciting offers to buy these securities, in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED SEPTEMBER 18, 2009

Preliminary Prospectus Supplement
(To Prospectus dated June 23, 2009)

12,000,000 SHARES

BRUKER CORPORATION

COMMON STOCK

The selling stockholders identified in this prospectus supplement are offering 12,000,000 shares of our common stock, par value \$.01 per share. We will not receive any proceeds from the sale of shares by the selling stockholders.

Simultaneously with this offering, Frank H. Laukien, our Chairman, President and Chief Executive Officer has agreed to purchase privately from one of the selling stockholders in this offering 100,000 shares of Bruker common stock at the public offering price listed below.

Our common stock is traded on the Nasdaq Global Select Market under the symbol "BRKR." On September 16, 2009, the reported last sale price of our common stock on the Nasdaq Global Select Market was \$10.10 per share.

Investing in our common stock involves a high degree of risk. Before buying any shares, you should read carefully the discussion of material risks of investing in our common stock under the heading "Risk Factors" in this prospectus supplement and the accompanying prospectus.

PRICE: \$ PER SHARE

| | Per Share | Total |
|---|--------------|-------|
| Public offering price | \$ | \$ |
| Underwriting discounts and commissions | \$ | \$ |
| Proceeds, before expenses, to selling stockholders | \$ | \$ |

The selling stockholders have granted an over-allotment option to the underwriters. Under this option, the underwriters have the right to purchase up to 1,800,000 additional shares of our common stock from the selling stockholders to cover over-allotment, if any. The underwriters can exercise this right at any time within 30 days after the date of this prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

Delivery of the shares of common stock is expected on or about September , 2009.

Joint Book-Running Managers

Goldman, Sachs & Co. J.P.Morgan

**Deutsche Bank
Securities**

The date of this prospectus supplement is September , 2009.

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IMPORTANT NOTICE TO READERS

You should rely only on the information contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we have authorized for use in connection with this offering. Neither we nor the selling stockholders have authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. The selling stockholders are offering to sell and seeking offers to buy our common stock only in jurisdictions where offers and sales of these securities are permitted. You should assume that information contained in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and in any free writing prospectus that we have authorized for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. Before making an investment decision, you should read this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety. You should also read and consider the information in the documents we have referred you to in the sections of this prospectus supplement entitled "Where You Can Find More Information" and "Information Incorporated by Reference."

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part is the accompanying prospectus, which describes more general information, some of which may not apply to this offering. You should read this prospectus supplement and the accompanying prospectus together with additional information described below under the headings "Where You Can Find More Information" and "Information Incorporated by Reference."

Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the Securities and Exchange Commission, or the SEC, before the date of this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date for example, a document incorporated by reference in the accompanying prospectus the statement in the document having the later date modifies or supersedes the earlier statement.

The words "Bruker," "we," "us" and "our" as used in this prospectus supplement and the accompanying prospectus refer only to Bruker Corporation and its consolidated subsidiaries, except where the context otherwise requires or as otherwise indicated.

SPECIAL NOTE ABOUT FORWARD-LOOKING STATEMENTS

Certain statements made in this prospectus supplement, the accompanying prospectus, the documents we have filed with the SEC that are incorporated by reference, and any free-writing prospectus that we have authorized for use in connection with this offering, may constitute "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. The words "believes," "anticipates," "plans," "expects," "seeks," "estimates," "should," "will" and similar expressions generally identify forward-looking statements. These forward-looking statements are subject to certain risks and uncertainties that could cause actual results and events to differ materially from those anticipated in the forward-looking statements.

Potential risks and uncertainties which could adversely affect our ability to obtain these results include, without limitation, the following factors: (a) adverse changes in conditions in the global economy and volatility in the capital markets, (b) the integration of businesses we have acquired or may acquire in the future, (c) changing technologies, (d) product development and market acceptance of our products, (e) the cost and pricing of our products, (f) manufacturing, (g) competition, (h) dependence on collaborative partners and key suppliers, (i) capital spending and government funding policies, (j) changes in governmental regulations, (k) realization of anticipated benefits from economic stimulus programs, (l) intellectual property rights, (m) litigation and (n) exposure to foreign currency fluctuations.

For a discussion of important risks of an investment in our common stock, including factors that could cause actual results to differ materially from results referred to in the forward-looking statements, see "Risk Factors" beginning on page S-10 of this prospectus supplement and on page 1 of the accompanying prospectus. There may be other factors, including those discussed elsewhere in this prospectus supplement or incorporated by reference, which may cause our actual results to differ materially from the forward-looking statements. Except as required by law, we are not responsible for updating or revising any forward-looking statements, whether as a result of new information, future events or otherwise.

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PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary does not contain all the information you should consider before investing in our common stock. You should read and consider carefully the more detailed information in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference in this prospectus supplement and the accompanying prospectus and the information included in any free writing prospectus that we have authorized for use in connection with this offering.

Company Overview

Bruker is a global designer and manufacturer of proprietary life science and materials research systems and associated products that address the rapidly evolving needs of a diverse array of customers in life science, pharmaceutical, biotechnology and molecular diagnostics research, as well as in materials and chemical analysis in various industries and government applications. Our core technology platforms include X-ray technologies, magnetic resonance technologies, mass spectrometry technologies, optical emission spectroscopy and infrared and Raman molecular spectroscopy technologies. We also manufacture and distribute a broad range of field analytical systems for chemical, biological, radiological, nuclear and explosives, or CBRNE, detection. We also develop and manufacture low temperature and high temperature superconductors and superconducting devices for use in advanced magnet technology, physics research and energy applications. We maintain major technical and manufacturing centers in Europe, North America and Japan, and we have sales offices located throughout the world.

We are organized into five operating divisions: Bruker AXS, Bruker BioSpin, Bruker Daltonics, Bruker Optics and Bruker Energy & Supercon Technologies, or BEST. Bruker AXS is in the business of designing, manufacturing and distributing advanced X-ray, spark optical emission spectroscopy, or spark-OES, and atomic force microscopy, or AFM, instrumentation used in molecular, materials and elemental analysis. Bruker BioSpin is in the business of manufacturing and distributing life science tools based on magnetic resonance technology. Bruker Daltonics is in the business of designing, manufacturing and distributing life-science mass spectrometry instruments and solutions for proteomics, metabolomics and clinical research applications. Bruker Daltonics also designs, manufactures and distributes various analytical instruments for CBRNE detection. Bruker Optics is in the business of designing, manufacturing and distributing research, analytical and process analysis instruments and solutions based on infrared and Raman molecular spectroscopy technologies. Bruker Energy & Supercon Technologies is in the business of developing and producing low temperature superconductors used primarily in magnetic resonance technologies, high-energy physics and nuclear fusion research magnet applications and high temperature superconductors for use in energy and other applications, as well as superconducting devices for these same markets.

For financial reporting purposes, we combine the Bruker AXS, Bruker BioSpin, Bruker Daltonics and Bruker Optics operating divisions into the Scientific Instruments reporting segment because each has similar economic characteristics, product processes and services, types and classes of customers, methods of distribution and regulatory environments. As such, management reports its financial results based on the following segments:

Scientific Instruments. The operations of this segment include the design, manufacture and distribution of advanced instrumentation and automated solutions based on X-ray technology, spark-OES technology, magnetic resonance technology, mass spectrometry technology and infrared and Raman molecular spectroscopy technology. Typical customers of the Scientific Instruments segment include pharmaceutical, biotechnology, and diagnostic companies, academic institutions, medical schools, other non-profit organizations, clinical microbiology laboratories, government departments and agencies, nanotechnology, semiconductor, chemical, cement, metals

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and petroleum companies, and food, beverage and agricultural analysis companies and laboratories.

Energy & Supercon Technologies. The operations of this segment include development and production of low temperature superconductor and high temperature superconductor wires for use in advanced magnet technology and energy applications as well as electron and ion linear accelerators, superconducting and normal conducting accelerator cavities, insertion devices, prototype superconducting fault current limiters, prototype crystal growth magnets, other accelerator components and highly specialized manufacturing services for physics and energy research, and a variety of other scientific applications.

Scientific Instruments

Bruker AXS

Bruker AXS manufactures and distributes advanced X-ray, spark-OES and AFM instrumentation used in molecular, materials and elemental analysis. Bruker AXS' systems are advanced instruments that use extremely short wavelengths of energy to determine the characteristics of matter and the three-dimensional structure of molecules. Using modular platforms, we often combine each of these three technology applications with sample preparation tools, automation, consumables and data analysis software. Bruker AXS products, which have particular application in structural proteomics, drug discovery, nanotechnology research and materials science fields, provide customers with the ability to determine the three-dimensional structure of specific molecules, such as proteins, and to characterize and determine the composition of materials down to the dimensions used in nanotechnology. Bruker AXS also sells thermal analyzers which measure the physical characteristics of materials as a function of temperature and can be used in development, production and characterization of materials in a variety of industries. Customers of our Bruker AXS division include biotechnology and pharmaceutical companies, nanotechnology companies, semiconductor companies, raw material manufacturers, chemical companies, academic institutions, governmental customers and other businesses involved in materials analysis.

Bruker BioSpin

Bruker BioSpin manufactures and distributes enabling life science tools based on magnetic resonance technology. Magnetic resonance is a natural phenomenon occurring when a molecule, placed in a magnetic field, gives off a signature radio frequency. The signature radio frequency is characteristic of the particular molecule and provides a multitude of precise chemical and structural information. Depending on the intended application, we market and sell to our customers a magnetic resonance imaging system, known as pre-clinical MRI, a nuclear magnetic resonance system, known as NMR, or an electron paramagnetic resonance system, known as EPR. Bruker BioSpin's products, which have particular application in structural proteomics, drug discovery, research and materials science fields, provide customers with the ability to determine the structure, dynamics and function of specific molecules, such as proteins, and to characterize and determine the composition of mixtures. Customers of our Bruker BioSpin division include pharmaceutical and biotechnology companies, academic institutions, medical schools, other non-profit laboratories and government agencies, as well as chemical and polymer companies. Bruker BioSpin also offers high-field OEM MRI magnets to other medical device manufacturers. The technologies of Bruker BioSpin are also complementary to our accurate-mass electrospray time-of-flight mass spectrometers and our single-crystal diffraction X-ray spectrometers.

Bruker Daltonics

Bruker Daltonics manufactures and distributes life-science mass spectrometry instruments that can be integrated and used along with other sample preparation or chromatography instruments, as well as our CBRNE detection products. Our mass spectrometers are sophisticated devices that measure the

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mass or weight of a molecule and can provide accurate information on the identity, quantity and primary structure of molecules. Mass spectrometry-based solutions often combine advanced mass spectrometry instrumentation; automated sampling and sample preparation robots; reagent kits and other disposable products, known as "consumables," which are 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 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 and clinical microbiology (for research use only outside the European Union). Customers of our Bruker Daltonics division include pharmaceutical, biotechnology and diagnostics companies, academic institutions, medical schools, other non-profit or for profit forensics, food/beverage safety, environmental and clinical microbiology laboratories, and government departments and agencies. We are also a worldwide leader in supplying various systems based on mass spectrometry, ion mobility spectrometry, infrared spectroscopy and radiological/nuclear detectors for CBRNE detection in emergency response, homeland security and defense applications.

Bruker Optics

Bruker Optics manufactures and distributes research, analytical and process analysis instruments and solutions based on infrared and Raman molecular spectroscopy technologies. These products are utilized in industry, government and academia for a wide range of applications and solutions for life science, pharmaceutical analysis, food and agricultural analysis in research and development, quality control and process analysis applications. Bruker Optics utilizes Fourier Transform and the dispersive Raman measurement techniques on an extensive range of laboratory and process spectrometers. Infrared spectroscopy is a type of absorption spectroscopy that uses the infrared part of the electromagnetic spectrum. Infrared and Raman spectroscopy are widely used in both research and industry as a simple, rapid, non-destructive and reliable technique for applications ranging from basic sample identification and quality control to advanced research. The Bruker Optics product line is complemented by a wide range of sampling accessories and techniques which include microanalysis, high-throughput screening and many others, to help users find suitable solutions to analyze their samples effectively.

Energy & Supercon Technologies

Bruker Energy & Supercon Technologies

Bruker Energy & Supercon Technologies develops, manufactures and sells superconducting and normal conducting radio frequency, or rf, cavities and systems, linear accelerators, and special products for physics and energy research, as well as superconducting devices, specialty magnets, circular accelerators, vacuum systems, and x-ray and particle beamlines. In addition, BEST manufactures and sells niobium-titanium, or NbTi, and niobium-tin, or Nb₃Sn, low-temperature superconductor, or LTS, wire and is also a leading manufacturer of both first generation bismuth strontium calcium copper oxide, or 1G BSCCO, and second generation yttrium barium copper oxide, or 2G YBCO, high-temperature superconductor, or HTS, materials and devices. The prototype inductive superconducting fault current limiter, or iSFCL, technology platform provided by BEST has the potential to enhance power grid reliability, and BEST HTS current leads can dramatically reduce electrical losses in large industrial and research magnets. Conductors and components made by BEST can be used to build new generations of compact high power devices such as HTS motors, generators, cables and transformers, as well as high field magnets for medical and research applications. BEST is also developing prototype crystal growth magnets for semiconductor and photovoltaic manufacturing applications.

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Our Products and Solutions

We believe that our products and solutions offer the following advantages to our customers:

- high performance and specificity;
- integrated solutions for specific applications;
- increased productivity;
- high quality results; and
- cost efficiency.

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, semiconductor, 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 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, primarily in Japan, which measure the physical characteristics of materials as a function of temperature and can be used in development, production and characterization of materials in a variety of industries. During 2009, we have added to the Bruker AXS product line with the introduction of several new products, including a faster and more powerful benchtop X-ray diffraction, or XRD, system, a simultaneous wavelength-dispersive X-ray fluorescence spectrometer, and a 'plug-and-play' high-performance XRD system.

Bruker BioSpin systems integrate a radio frequency source and transmitter, one or more sensitive detectors, a magnet sized for the particular application and operating and analysis software to acquire and analyze radio frequency signatures that are given off when a molecule is placed in a magnetic field. These solutions address many of the matter characterization needs of the pharmaceutical and biotechnology industries and also have applications in advanced materials research, materials analysis and quality control. During 2009, we have launched a number of new products into the Bruker BioSpin product line, including three ultra-high field NMR magnets and the first solid state dynamic nuclear polarization NMR spectrometer offering greater than fifty times signal enhancement for the study of bio-solids, which we co-developed with the Massachusetts Institute of Technology.

Bruker Daltonics has developed a suite of mass spectrometry instruments that address a wide range of life sciences applications. Mass spectrometry is the method of choice for primary structure analysis, including the determination of amino acid sequence and post-translational modifications and protein quantification. As a result, mass spectrometry is 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 in an effort to develop the emerging field of protein molecular diagnostics. 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, such as drug candidates and metabolites, as well as large biomolecules, such as proteins and DNA. During 2009, we have expanded the Bruker Daltonics product line with the launch of three new mass spectrometry platforms.

Bruker Optics' research, analytical and process analysis instruments are based on infrared, or IR, near-infrared, or NIR, Raman and time-domain magnetic resonance, or TD-NMR, spectroscopy.

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Bruker Optics utilizes Fourier Transform (FT-IR, FT-NIR and FT-Raman) and the dispersive (Raman) measurement techniques on an extensive range of laboratory and process spectrometers. Infrared spectroscopy is a type of absorption spectroscopy that uses the infrared part of the electromagnetic spectrum. Raman spectroscopy relies on the Raman scattering of a monochromatic light that yields similar and complementary analytical information. Infrared and Raman spectroscopy are widely used in both research and industry as a simple, rapid, non-destructive and reliable technique for applications ranging from basic sample identification and quality control to advanced research. The Bruker Optics product line is complemented by a wide range of sampling accessories and techniques which include microanalysis, high-throughput screening and many others, to help users find the best suitable solution to analyze their samples effectively.

Bruker Energy & Supercon Technologies is a leader in the development and manufacturing of superconducting and normal conducting rf cavities and systems, linear accelerators, and special products for physics and energy research, as well as superconducting devices, specialty magnets, circular accelerators, vacuum systems, and x-ray and particle beamlines. BEST manufactures and sells over 20,000 miles of niobium-titanium and niobium-tin LTS wire annually. BEST is also a leading manufacturer of both 1G BSCCO and 2G YBCO HTS materials and devices, based on its broad HTS technology platform. The BEST proprietary prototype inductive superconducting fault current limiter has the potential to enhance power grid reliability, and BEST HTS current leads can significantly reduce electrical losses in large industrial and research magnets. Conductors and components made by BEST are being used by strategic partners to build new generations of compact high power devices such as HTS motors, generators, cables and transformers, as well as high field magnets for medical and research applications. BEST also offers a light-weight conductor for the aviation industry.

Our Strategy

Our business strategy is to capitalize on our ability to innovate, generating above industry-average revenue performance, both organically and through acquisitions. If we can execute on this strategy while improving our gross margins and effectively leveraging our research and development, sales and marketing and distribution investments and general and administrative expenses, we believe we will enhance our operating margins and improve our earnings in the future.

Our Competitive Strengths

We believe our key competitive strengths include our:

broad product and service offerings in the markets we serve;

commitment to innovative, reliable and performance-leading products and solutions for our customers;

premier global brand;

extensive intellectual property portfolio; and

global manufacturing, distribution and logistics networks.

In the current challenging global economic environment, we believe we may benefit from our broad product portfolio, including our new product introductions. We also believe, through our relationships with government, academic, and not-for-profit customers, we may benefit from government economic stimulus programs enacted to provide funding for investment in a variety of industries, including life science research and development. During the first six months of fiscal 2009, the performance of several of our divisions in the Scientific Instruments segment reflects, in part, the impact of new product introductions in 2008 and 2009 and, to a lesser extent, orders arising from the stimulus program adopted by the Japanese government in 2008. For example, during that period foreign currency-adjusted revenue at Bruker AXS declined approximately 10% and at Bruker Optics declined less than 12% (in each case, revenue declined less than 20% excluding foreign currency adjustments) relative to the comparable fiscal 2008 period. During the first six months of fiscal 2009,

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Bruker Optics demonstrated gross margin improvement, with gross margin increasing nearly three percentage points over the comparable prior year period. Additionally, at Bruker Daltonics, new product launches in 2008 and 2009 contributed to a greater than 15% increase in revenues from life science mass spectrometry products, and also contributed to margin improvement in the first six months of fiscal 2009 compared to the same period in 2008. Bruker Daltonics' life science mass spectrometry orders increased more than 20% in the first six months of fiscal 2009 compared to the same period in 2008, while orders at Bruker BioSpin increased nearly 10% for the same comparable period. Similarly, orders for CBRNE detection products in the first six months of fiscal 2009 increased by over 20% relative to the same period in fiscal 2008.

Corporate Information

We were incorporated in Massachusetts as Bruker Federal Systems Corporation. In February 2000, we reincorporated in Delaware as Bruker Daltonics Inc. In July 2003, we merged with Bruker AXS Inc., and we were the surviving corporation in that merger. In connection with that merger, we changed our name to Bruker BioSciences Corporation and formed two operating subsidiaries, Bruker Daltonics and Bruker AXS. In July 2006, we acquired Bruker Optics Inc. In February 2008, we acquired the Bruker BioSpin group of companies and changed our name to Bruker Corporation. Our principal executive offices are located at 40 Manning Road, Billerica, MA 01821, and our telephone number is (978) 663-3660.

Our website is www.bruker.com. The information contained in, or that can be accessed through, our website is not part of, and is not incorporated into, this prospectus supplement or the accompanying prospectus and should not be considered part of this prospectus supplement or the accompanying prospectus.

Selling Stockholders

Our five largest stockholders are Frank H. Laukien, Dirk D. Laukien, and Isolde Laukien-Kleiner, Joerg C. Laukien and Marc M. Laukien. Marc Laukien and Isolde Laukien-Kleiner are the selling stockholders in this offering. Marc Laukien and Isolde Laukien-Kleiner are not involved with Bruker, except in their capacity as stockholders, and are not employees, members of management or directors of Bruker. Frank Laukien, our Chairman, President and Chief Executive Officer, and Joerg Laukien, a director and Chief Operating Officer of our Bruker BioSpin subsidiary, are not offering any shares of common stock under this prospectus supplement and the accompanying prospectus. Dirk Laukien, a director and Senior Vice President of Bruker Corporation and the President of our Bruker Optics operating division, is not a selling stockholder in this offering. Simultaneously with this offering, Frank Laukien has agreed to purchase privately from Marc Laukien, one of the selling stockholders in this offering, 100,000 shares of our common stock at the public offering price listed on the cover of this prospectus supplement.

As of September 15, 2009, the two selling stockholders held 31,666,508 shares, or 19.3% of our outstanding common stock. They intend to sell 12,000,000 of those shares in this offering (or 13,800,000 if the over-allotment option is exercised in full). Upon completion of this offering, and following the purchase of 100,000 shares by Frank Laukien from Marc Laukien, these selling stockholders will own 11.9% of our common stock, or 10.8% if the underwriters' over-allotment option is exercised in full, and our public float will increase from 31.2% to 38.5% of our outstanding common stock, or 39.6%, if the underwriters' over-allotment option is exercised in full. We will not receive any proceeds from the sale of shares by the selling stockholders in this offering.

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The Offering

| | |
|---|---|
| Common stock offered by the selling stockholders | 12,000,000 shares (or 13,800,000 shares if the over-allotment option is exercised in full)(1) |
| Common stock to be outstanding immediately after this offering(2) | 164,149,285 shares |
| Use of Proceeds | We will not receive any proceeds from the sale of stock by the selling stockholders. Simultaneously with this offering, Frank H. Laukien, our Chairman, President and Chief Executive Officer, has agreed to purchase privately from Marc M. Laukien, one of the selling stockholders in this offering, 100,000 shares of Bruker common stock at the public offering price listed on the cover of this prospectus supplement. |
| Risk Factors | See "Risk Factors" on page S-10 of this prospectus supplement and beginning on page 1 of the accompanying prospectus and other information included in this prospectus supplement and the accompanying prospectus for a discussion of factors you should carefully consider before investing in our common stock. |
| Dividend Policy | We have never declared or paid cash dividends on our common stock and do not currently intend to pay any dividends on our common stock in the foreseeable future. We currently intend to retain our future earnings for use in our business. See "Dividend Policy" for more information. The terms of some of our outstanding indebtedness prohibit us from paying cash dividends. |
| Nasdaq Global Select Market Symbol | BRKR |

(1) Based on market conditions and other factors at the time of the offering, the selling stockholders may also increase or decrease the number of shares they are offering.

(2) The number of shares of common stock to be outstanding upon completion of this offering is based on 164,149,285 shares of common stock outstanding as of September 15, 2009. This number excludes 5,238,547 shares of common stock issuable upon exercise of options outstanding at a weighted average exercise price of \$8.53 per share as of June 30, 2009 and 2,397,148 additional shares of common stock available for future grant under our 2000 Stock Option Plan as of June 30, 2009.

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We present below our summary consolidated financial data. We have derived our summary consolidated statements of operations data for the years ended December 31, 2006, 2007 and 2008 from our audited consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2008 and incorporated by reference in this prospectus supplement and the accompanying prospectus. We have derived our summary consolidated statements of operations data for the six months ended June 30, 2008 and 2009, and our summary consolidated balance sheet data as of June 30, 2009, from our unaudited consolidated financial statements included in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2009 and incorporated by reference in this prospectus supplement and the accompanying prospectus. Our historical results are not necessarily indicative of the results to be expected in any future period.

On February 26, 2008, we completed our acquisition of Bruker BioSpin. Both the Company and Bruker BioSpin were majority owned by six affiliated shareholders prior to the acquisition. As a result, the acquisition of Bruker BioSpin is considered a combination of companies under common control, and has been accounted for at historical carrying values. On July 1, 2006, we completed our acquisition of Bruker Optics. Both the Company and Bruker Optics were majority owned by five affiliated shareholders prior to the acquisition. As a result, the acquisition of Bruker Optics is considered a combination of companies under common control, and has been accounted for at historical carrying values. For all periods prior to the acquisitions of Bruker BioSpin and Bruker Optics, the historical unaudited condensed consolidated balance sheet and statements of operations financial data presented below have been restated by combining our historical consolidated financial statements with those of the acquired companies under common control. Because the transactions were accounted for as acquisitions of businesses under common control, all one-time transaction costs were expensed as incurred.

The following summary information should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included in our periodic reports on file with the SEC and incorporated by reference in this prospectus supplement and the accompanying prospectus.

| | Years Ended December 31, | | | Six Months Ended June 30, | |
|---|--------------------------|----------|----------|------------------------------|---------|
| | 2006 | 2007 | 2008 | 2008 | 2009 |
| Statement of Operations Data: | | | | | |
| Product and service revenue | \$ 847 | \$ 1,029 | \$ 1,102 | \$ 548 | \$ 480 |
| Other revenue | 5 | 4 | 5 | 2 | 3 |
| Total revenue | 851 | 1,032 | 1,107 | 550 | 483 |
| Total costs and operating expenses(A) | 745 | 895 | 999 | 506 | 449 |
| Operating income | 106 | 138 | 108 | 44 | 35 |
| Net income | \$ 74 | \$ 99 | \$ 65 | \$ 21 | \$ 21 |
| Net income per share basic | \$ 0.47 | \$ 0.61 | \$ 0.40 | \$ 0.13 | \$ 0.13 |
| Net income per share diluted | \$ 0.46 | \$ 0.60 | \$ 0.39 | \$ 0.13 | \$ 0.13 |
| Shares used in computing net income per share basic | 159.1 | 161.2 | 162.7 | 162.4 | 163.3 |
| Shares used in computing net income per share diluted | 160.1 | 164.3 | 165.6 | 165.3 | 164.5 |

Totals may not add due to rounding

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| | June 30, 2009 (dollars in millions) |
|-----------------------------|--|
| Balance Sheet Data: | |
| Cash and cash equivalents | \$ 153 |
| Working capital | 270 |
| Total assets | 1,088 |
| Total debt | 171 |
| Other long-term liabilities | 104 |
| Total stockholders' equity | 337 |

(A)

Includes \$5.6 million, \$7.4 million and \$6.2 million of acquisition-related charges for the years ended December 31, 2006, 2007 and 2008, respectively, and \$6.2 million and \$(0.6) million of charges (credits) for the six months ended June 30, 2008 and 2009, respectively. \$2.3 million of restructuring charges were also included in the results of operations for the year ended December 31, 2008.

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RISK FACTORS

You should carefully consider the risks set forth below and under the heading "Risk Factors" in the accompanying prospectus and all of the other information set forth or incorporated by reference in this prospectus supplement and the accompanying prospectus before making an investment decision. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment. Please note that additional risks not presently known to us or that we currently deem immaterial may also impair our business and operations. In addition, please read "Special Note About Forward-Looking Statements" where we describe additional uncertainties associated with our business and the forward-looking statements included or incorporated by reference in this prospectus supplement and the accompanying prospectus. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks faced by us described below and elsewhere included or incorporated by reference in this prospectus supplement and the accompanying prospectus.

The global recession continues to hinder our growth.

The global recession has had a continuing impact on our revenues and profitability during 2009 and we expect it will materially impact our financial performance for the remainder of this year. We experienced a decrease in revenues in the first half of 2009 compared to the prior year period, and our operating income also declined. While we previously had anticipated improvement in our operating margin and earnings per share in 2009, we are not likely to reach that goal, and our revised goal is to minimize 2009 margin deterioration or to keep margins flat during the recession. While we anticipate eventual margin improvement with anticipated benefits from stimulus funding and a gradual recovery in the global economy, we cannot be sure of the extent to which we will benefit from stimulus funding or when or how robustly the global economy will improve. Our revenues and profitability may not improve or may further deteriorate.

We may not realize anticipated benefits from global stimulus packages.

Many governments around the world, including the U.S. federal government, have enacted various stimulus packages that are intended to increase investment and business activity, and in particular to provide funding for life science research, equipment and facilities. Although we believe there is opportunity for Bruker to benefit from such economic stimulus spending programs, including the American Recovery and Reinvestment Act of 2009, there is no assurance that any such programs will have a material positive impact on our revenues and profits. The magnitude and timing of any benefits that we might realize from stimulus funding initiatives are uncertain and are subject to a number of factors beyond our control, including, without limitation, government appropriations processes in various countries in which we and our customers do business, governmental determinations regarding the allocation of stimulus funds to the academic institutions, not-for-profit research organizations and businesses that may utilize our products and technologies, the success of our customers in obtaining stimulus grants, and our customers' decisions to use any stimulus funds they receive to purchase products from us. It is not possible to predict whether or when we will realize benefits from stimulus packages enacted in the U.S. or elsewhere, or what impact, if any, stimulus packages will have on our business, results of operations or financial condition or the trading price of our common stock.

Our new technologies and product developments may not succeed.

We are currently developing a number of new key technologies and products, including various new LTS and HTS superconductors, prototype crystal growth magnets, and prototype superconducting fault current limiters at BEST, new magnet types at Bruker BioSpin, new mass spectrometry technologies and applications at Bruker Daltonics, and new CBRNE detection products that may not

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succeed technically, or may not be able to be manufactured reliably and economically. Any technology, product or manufacturing ramp-up failure could decrease our opportunities for additional revenues and increased margins.

Health care reform in the U.S. could adversely affect our revenue.

President Obama has stated that health care reform in the U.S. is one of his top priorities, and it has recently been a topic of active discussion and debate. It is too soon to predict what form this reform may take, or whether and when it will happen. However, because many of our products are used for life science and health care applications, it is possible that health care reform in the U.S. could adversely affect our revenue.

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USE OF PROCEEDS

We will not receive any proceeds from the sale of shares by the two selling stockholders. We have borne 25%, and the selling stockholders named in the accompanying prospectus have borne 75%, of all costs, expenses and fees associated with the registration of the shares of common stock. The selling stockholders in this offering will bear all of the external costs, fees and expenses, including all commissions, brokerage fees and discounts, associated with the sale of shares of common stock in this offering.

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.

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 certificate of incorporation and our by-laws. This summary is qualified in its entirety by reference to the provisions of our certificate of incorporation, as amended, and by-laws, which have been filed with the Securities and Exchange Commission.

General

As of June 30, 2009, we were authorized to issue 260,000,000 shares of common stock, par value \$.01 per share, and 5,000,000 shares of undesignated preferred stock, par value \$.01 per share.

As of June 30, 2009, 164,087,903 shares of our common stock were issued and outstanding, no shares of our preferred stock were issued and outstanding and 2,397,148 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 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.

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

Certificate of Incorporation and Bylaws Provisions. Our 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 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.

Authorized but Unissued or Undesignated Capital Stock. Our authorized capital stock consists of 260,000,000 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 the 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 directors' 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.

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. Currently, our President is also the Chairman of the Board 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 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 90th day nor earlier than the close of business on the 120th 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 shareholders as a result of such sale, conveyance or change in control, or the board of directors 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 of directors also has the power and right to accelerate the exercisability of any options upon such sale, conveyance or change in control.

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Limitation of Director Liability. Our 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. Specifically, our 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

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

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**MATERIAL U.S. FEDERAL INCOME AND ESTATE TAX CONSEQUENCES
FOR CERTAIN NON-U.S. HOLDERS**

The following summary describes the material U.S. federal income and estate tax consequences of the acquisition, ownership and disposition of common stock acquired in this offering by certain Non-U.S. Holders (as defined below). This discussion does not address all aspects of U.S. federal income and estate taxes and does not deal with foreign, state or local tax consequences or any U.S. federal gift tax consequences that may be relevant to Non-U.S. Holders in light of their particular circumstances. Without limiting the forgoing, this discussion does not address Non-U.S. Holders that are subject to special treatment under the Internal Revenue Code of 1986, as amended, or the Code, such as financial institutions, insurance companies, tax-exempt organizations, broker-dealers and traders in securities, former citizens or residents of the U.S. that are subject to tax as U.S. expatriates, "controlled foreign corporations," "passive foreign investment companies," corporations that accumulate earnings to avoid U.S. federal income tax, common trust funds, hybrid entities, pension plans, certain trusts, holders subject to U.S. federal alternative minimum tax, persons that hold our common stock as part of a "straddle," "hedge," "conversion transaction," "synthetic security" or integrated investment, persons that are deemed to sell our common stock under the constructive sale provisions of the Code, persons who hold or receive our common stock as compensation, such as that received pursuant to stock option plans or stock purchase plans, and persons that own, or have owned, actually or constructively, more than five percent of our common stock. Such Non-U.S. Holders are urged to consult their own tax advisors to determine the U.S. federal, state, local and other tax consequences that may be relevant to them. Furthermore, the discussion below is based upon the provisions of the Code, and final, temporary and proposed Treasury regulations, rulings and judicial decisions thereunder as of the date hereof, and such authorities may be subject to differing interpretations and may be repealed, revoked or modified, perhaps retroactively, so as to materially affect the U.S. federal income and estate tax consequences discussed below. This discussion assumes that the Non-U.S. Holder will acquire and hold our common stock as a capital asset (generally, property held for investment within the meaning of Code Section 1221).

This discussion does not address U.S. federal income and estate tax rules applicable to any person who holds our common stock through entities treated as partnerships for U.S. federal income tax purposes or to such entities themselves. If a partnership (including any entity or arrangement treated as a partnership for U.S. federal income tax purposes) owns our common stock, the tax treatment of a partner in the partnership will depend on the status of the partner and the activities of the partnership. A holder of our common stock that is a partnership, and holders of interests in such entities, should consult their own tax advisors regarding the tax consequences of the acquisition, ownership and disposition of our common stock.

The following discussion is for general information only and is not tax advice. Persons considering the purchase of common stock pursuant to this offering should consult their own tax advisors concerning the U.S. federal income and estate tax consequences of acquiring, owning and disposing of our common stock in light of their particular situations as well as any consequences arising under the laws of any other taxing jurisdiction, including any state, local or foreign tax consequences.

For the purposes of this discussion, a "Non-U.S. Holder" is, for U.S. federal income tax purposes, a beneficial holder of common stock that is not a U.S. Holder. A "U.S. Holder" means a beneficial holder of common stock that is for U.S. federal income tax purposes (i) an individual who is a citizen or resident of the United States, (ii) a corporation or other entity treated as a corporation created or organized in or under the laws of the United States or any political subdivision thereof, (iii) an estate the income of which is subject to U.S. federal income taxation regardless of its source or (iv) a trust if it (x) is subject to the primary supervision of a court within the United States and one or more U.S. persons have the authority to control all substantial decisions of the trust or (y) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

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Distributions

Subject to the discussion below, distributions, if any, made on our common stock to a Non-U.S. Holder of our common stock out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles) generally will constitute dividends for U.S. federal income tax purposes. The gross amount of such dividends will generally be subject to withholding tax at a 30 percent rate or such lower rate as may be specified by an applicable income tax treaty. To obtain a reduced rate of withholding under a treaty, prior to the making of a distribution, a Non-U.S. Holder generally will be required to provide us with a properly-executed IRS Form W-8BEN, or other appropriate form, certifying the Non-U.S. Holder's entitlement to benefits under that treaty. In the case of a Non-U.S. Holder that is an entity, U.S. Treasury regulations and the relevant tax treaty provide rules to determine whether, for purposes of determining the applicability of a tax treaty, dividends will be treated as paid to the entity or to those holding an interest in that entity. If a Non-U.S. Holder holds stock through a financial institution or other agent acting on the Non-U.S. Holder's behalf, the Non-U.S. Holder will be required to provide appropriate documentation to such agent. The Non-U.S. Holder's agent will then be required to provide certification to us or our paying agent, either directly or through other intermediaries. Non-U.S. Holders should consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

We generally are not required to withhold tax on dividends paid to a Non-U.S. Holder that are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States, or, if an applicable income tax treaty applies, that are attributable to a permanent establishment or fixed base maintained by the Non-U.S. Holder in the United States. To obtain this exemption, prior to the making of a distribution, a Non-U.S. Holder must provide us with a properly-executed IRS Form W-8ECI, or other appropriate form, certifying that the dividends are so connected. In general, effectively connected dividends, or dividends attributable to a permanent establishment or fixed base if an income tax treaty applies, will be subject to U.S. federal income tax, on a net income basis at the regular graduated rates, unless a specific treaty exemption applies. A corporate Non-U.S. Holder receiving effectively connected dividends, or dividends attributable to a permanent establishment or fixed base if an income tax treaty applies, may also be subject to an additional "branch profits tax," which is imposed, under certain circumstances, at a rate of 30 percent (or such lower rate as may be specified by an applicable income tax treaty) on the corporate Non-U.S. Holder's effectively connected earnings and profits, subject to certain adjustments.

A Non-U.S. Holder who provides us with an IRS Form W-8BEN or an IRS Form W-8ECI will be required to periodically update such form.

A Non-U.S. Holder that is eligible for a reduced rate of U.S. federal withholding tax under an applicable income tax treaty may obtain a refund or credit of any excess amounts withheld by filing an appropriate claim for a refund with the IRS.

To the extent distributions on our common stock, if any, exceed our current and accumulated earnings and profits, they will constitute a return of capital and will first reduce your basis in our common stock, but not below zero, and then will be treated as gain from the sale of stock. See " Gain on Disposition of Common Stock" below.

Regardless of whether the distribution is treated as effectively connected with the Non-U.S. Holder's conduct of a trade or business in the United States, if we are, or have been at any time during the five-year period preceding such distribution (or the Non-U.S. Holder's holding period, if shorter), a "United States real property holding corporation" (see " Gain on Disposition of Common Stock" below), we may be required to withhold 10% of the gross amount of a non-dividend distribution (i.e., the portion of a distribution not made out of earnings and profits). Consequently, we may withhold at a 10% rate in circumstances in which withholding at a 30% rate, or lower rate as specified in an applicable income tax treaty, does not apply or may not apply. Although we are not currently a

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U.S. real property holding corporation and do not expect to become a U.S. real property holding corporation, it is possible that we could become a U.S. real property holding corporation and accordingly no assurances can be made in this regard.

Gain on Disposition of Common Stock

Subject to the discussion below regarding back-up withholding, a Non-U.S. Holder generally will not be subject to U.S. federal income tax with respect to gain realized on a sale or other disposition of our common stock unless (i) the gain is effectively connected with a trade or business, or permanent establishment or fixed base if an income tax treaty applies, of such Non-U.S. Holder in the United States, (ii) the Non-U.S. Holder is a nonresident alien individual and is present in the United States for 183 or more days in the taxable year of the disposition and certain other conditions are met, or (iii) we are or have been a "United States real property holding corporation" within the meaning of Code Section 897(c)(2) at any time within the shorter of the five-year period preceding such disposition or such Non-U.S. Holder's holding period. In general, we would be a United States real property holding corporation if the fair market value of our interests in U.S. real property equals or exceeds 50% of the sum of the fair market values of our worldwide real property interests and our other trade or business assets, all as determined under applicable U.S. Treasury regulations. Although we believe that we are not, and do not anticipate becoming, a United States real property holding corporation, it is possible that we could become a U.S. real property holding corporation and accordingly no assurances can be made in this regard. Even if we are treated as a United States real property holding corporation, gain realized by a Non-U.S. Holder on a disposition of our common stock will not be subject to U.S. federal income tax so long as (1) the Non-U.S. Holder owned directly, indirectly and/or constructively, no more than five percent of our common stock at all times within the shorter of (a) the five year period preceding the disposition or (b) the Non-U.S. Holder's holding period and (2) our common stock is regularly traded on an established securities market. There can be no assurance that our common stock will continue to qualify as regularly traded on an established securities market.

If you are a Non-U.S. Holder described in (i) above, you will be required to pay tax on the net gain derived from the sale at regular graduated U.S. federal income tax rates, unless a specific treaty exemption applies. In addition, corporate Non-U.S. Holders described in (i) above may be subject to the additional branch profits tax at a 30 percent rate or such lower rate as may be specified by an applicable income tax treaty. If you are an individual Non-U.S. Holder described in (ii) above, you will be required to pay a flat 30 percent tax on the gain derived from the sale, unless otherwise provided by an applicable income tax treaty, which tax may be offset by U.S. source capital losses (even though you are not considered a resident of the United States). If we are, or have been during the relevant period, a U.S. real property holding corporation, and if the requirements of either (1) or (2) described in (iii) above are not satisfied, a Non-U.S. Holder will be subject to U.S. federal income tax on the sale or disposition of our common stock on a net income basis in the same manner as if the Non-U.S. Holder were a "United States person" defined in the Code and such Non-U.S. Holder will be subject to a 10% withholding tax on the amount realized from the sale or disposition of our common stock. Non-U.S. Holders should consult their tax advisor with respect to the application of the foregoing rules to their ownership and disposition of our common stock.

U.S. Federal Estate Tax

An individual Non-U.S. Holder who is treated as the owner, or has made certain lifetime transfers, of an interest in our common stock will be required to include the value thereof in his or her gross estate for U.S. federal estate tax purposes, and may be subject to U.S. federal estate tax, unless an applicable estate tax treaty provides otherwise.

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Information Reporting Requirements and Backup Withholding

Generally, we must report information to the IRS with respect to any dividends we pay on our stock including the amount of any such dividends, the name and address of the recipient, and the amount, if any, of tax withheld. These information reporting requirements apply even if withholding is not required. A similar report is sent to the holder to whom any such dividends are paid. Pursuant to income tax treaties or certain other agreements, the IRS may make its reports available to tax authorities in the recipient's country of residence.

Dividends paid by us (or our paying agents in their capacity as such) to a Non-U.S. Holder and proceeds received by a Non-U.S. Holder on the disposition of our common stock may also be subject to U.S. backup withholding. U.S. backup withholding generally will not apply to a Non-U.S. Holder who provides a properly-executed IRS Form W-8BEN, provided that neither we nor our paying agent has actual knowledge (or reason to know) that the holder is a U.S. Holder. The current backup withholding rate is 28 percent.

Backup withholding is not an additional tax. Rather, the tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, a refund may generally be obtained, provided that the required information is timely furnished to the IRS. Non-U.S. Holders should consult their tax advisors regarding the application of the information reporting and backup withholding rules to them.

THE PRECEDING DISCUSSION OF U.S. FEDERAL INCOME AND ESTATE TAX CONSIDERATIONS IS FOR GENERAL INFORMATION ONLY. IT IS NOT TAX ADVICE AND MAY NOT BE APPLICABLE DEPENDING ON A NON-U.S. HOLDER'S PARTICULAR SITUATION. EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF OUR COMMON STOCK, INCLUDING THAT UNDER THE LAWS OF ANY STATE, LOCAL, OR NON-U.S. JURISDICTION AND ANY APPLICABLE TAX TREATY, AS WELL AS THE EFFECT OF ANY PROPOSED CHANGE IN APPLICABLE LAW.

Table of Contents**SELLING STOCKHOLDERS**

Our five largest stockholders are Frank H. Laukien, Dirk D. Laukien, and Isolde Laukien-Kleiner, Joerg C. Laukien and Marc M. Laukien. Marc Laukien and Isolde Laukien-Kleiner are the selling stockholders in this offering. Marc Laukien and Isolde Laukien-Kleiner are not involved with Bruker, except in their capacity as stockholders, and are not employees, members of management or directors of Bruker. Frank Laukien, our Chairman, President and Chief Executive Officer, and Joerg Laukien, a director and Chief Operating Officer of our Bruker BioSpin subsidiary, are not offering any shares of common stock under this prospectus supplement or the accompanying prospectus. Dirk Laukien, a director and Senior Vice President of Bruker Corporation and the President of our Bruker Optics operating division, is not a selling stockholder in this offering. Simultaneously with this offering, Frank Laukien has agreed to purchase privately from Marc Laukien, one of the selling stockholders in this offering, 100,000 shares of Bruker common stock at the public offering price listed on the cover of this prospectus supplement.

Please see our Proxy Statement on Schedule 14A, which is incorporated by reference from our Annual Report on Form 10-K for the fiscal year ended December 31, 2008, for additional information under the heading "Related Persons Transactions" regarding material relationships of the selling stockholders with us or our affiliates.

The following table sets forth the name of each selling stockholder and, as of September 15, 2009, the number and percentage of shares of common stock beneficially owned by each selling stockholder and the number of shares each selling stockholder is offering for sale under this prospectus supplement. Each of the selling stockholders has sole voting and investment power with respect to all shares of common stock shown beneficially owned by them. You should consider the following points as you read the information in the table:

The amounts and percentage of our common stock beneficially owned 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.

Beneficial ownership is based on 164,149,285 shares of our common stock outstanding as of September 15, 2009.

The number of shares and percentage of outstanding common stock to be owned by the selling stockholders after completion of this offering assumes that each selling stockholder will sell all of his or her shares of common stock offered under this prospectus supplement and that Marc Laukien will sell an additional 100,000 shares to Frank Laukien in a simultaneous private transaction.

| 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 |
| Isolde Laukien-Kleiner | 17,160,160 | 10.5% | 2,000,000 | 15,160,160 | 9.2% |
| Marc M. Laukien | 14,506,348 | 8.8% | 10,000,000 | 4,406,348 | 2.7% |
| Totals | 31,666,508 | 19.3% | 12,000,000 | 19,566,508 | 11.9% |

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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 and the sale by Marc Laukien of 100,000 shares to Frank Laukien in a private transaction:

| Name of Beneficial Owner | Shares of Common Stock Subject to Over-Allotment Option | Shares of Common Stock Beneficially Owned Upon Completion of the Offering | |
|--------------------------|---|--|--------------|
| | | Number | Percentage |
| Isolde Laukien-Kleiner | 300,000 | 14,860,160 | 9.1% |
| Marc M. Laukien | 1,500,000 | 2,906,348 | 1.8% |
| Totals | 1,800,000 | 17,766,508 | 10.9% |

Additionally, in the event the selling stockholders and the underwriters determine that it is appropriate to increase the size of the offering beyond the 1,800,000 share maximum over-allotment option amount, any such increase in the number of shares to be offered and sold pursuant to this prospectus supplement will be allocated solely to Isolde Laukien-Kleiner. Marc Laukien will not participate in the sale of any such additional shares and will sell only the additional number of shares set forth above which are contractually subject to the over-allotment option, such that the maximum number of shares to be sold by Marc Laukien in this offering is 11,500,000 shares.

Table of Contents**UNDERWRITING**

The selling stockholders are offering the shares of common stock described in this prospectus supplement and the related prospectus through a number of underwriters. Goldman, Sachs & Co., J.P. Morgan Securities Inc. and Deutsche Bank Securities Inc. are acting as joint book-running managers of the offering and as representatives of the underwriters. We and the selling stockholders have entered into an underwriting agreement with the underwriters. Subject to the terms and conditions of the underwriting agreement, the two selling stockholders have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase from the two selling stockholders, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus, the aggregate number of shares of common stock listed next to its name in the following table:

| Name | Number of Shares |
|-------------------------------|---------------------|
| Goldman, Sachs & Co. | |
| J.P. Morgan Securities Inc. | |
| Deutsche Bank Securities Inc. | |
| Total | 12,000,000 |

The underwriters are committed to purchase all the common shares offered by the selling stockholders if they purchase any shares. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or the offering may be terminated. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or part.

The underwriters propose to offer the common shares directly to the public at the initial public offering price set forth on the cover page of this prospectus and to certain dealers at that price less a concession not in excess of \$ per share. Any such dealers may resell shares to certain other brokers or dealers at a discount of up to \$ per share from the initial public offering price. After the initial public offering of the shares, the offering price and other selling terms may be changed by the underwriters. Sales of shares made outside of the United States may be made by affiliates of the underwriters.

The underwriters have an option to buy up to an aggregate of 1,800,000 additional shares of common stock from the selling stockholders to cover sales of shares by the underwriters which exceed the number of shares specified in the table above to cover over-allotments, if any. The underwriters have 30 days from the date of this prospectus to exercise this over-allotment option. If any shares are purchased with this over-allotment option, the underwriters will purchase shares in approximately the same proportion as shown in the table above. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

The underwriting fee is equal to the public offering price per share of common stock less the amount paid by the underwriters to the selling stockholders per share of common stock. The underwriting fee is \$ per share. The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

| | Without over-allotment exercise | With full over-allotment exercise |
|-----------|---------------------------------------|---|
| Per Share | \$ | \$ |
| Total | \$ | \$ |

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The selling stockholders will bear all of the external costs, fees and expenses, including all commissions, brokerage fees and discounts, associated with the sale of shares of common stock in this offering.

A prospectus in electronic format may be made available on the web sites maintained by one or more underwriters, or selling group members, if any, participating in the offering. The underwriters may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters and selling group members that may make Internet distributions on the same basis as other allocations.

We, each of our executive officers and 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 J.P. Morgan and Goldman Sachs, sell, offer to sell, contract or agree to sell, hypothecate, pledge, grant any option to purchase or otherwise dispose of or agree to dispose of, directly or indirectly, our common stock or securities convertible into or exchangeable for our common stock. The restrictions will be in effect for a period of 90 days after the date of this prospectus supplement with respect to us and Messrs. Frank Laukien, Joerg Laukien and the selling stockholders. Our other executive officers and directors will be subject to such restrictions for a period of 60 days after the date of this prospectus supplement. At any time and without public notice, J.P. Morgan and Goldman Sachs may, in their sole discretion, release all or some of the securities from these lock-up agreements. Under our lock-up agreement, we are permitted to issue up to 10% of our common stock outstanding immediately prior to the time of purchase in connection with an acquisition, strategic licensing arrangement, corporate partnering transaction or similar extraordinary corporate transaction, provided that, each recipient of our shares agrees in writing to the same restrictions we are subject to as specified above.

The 90-day and 60-day lock-up periods may be extended for up to 37 additional days under certain circumstances where we announce or pre-announce earnings or material news or a material event within approximately 18 days prior to, or approximately 16 days after the termination of the 90-day and 60-day periods.

We and the selling stockholders have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act.

Our common stock is quoted on the Nasdaq Global Select Market under the symbol "BRKR".

In connection with this offering, the underwriters may engage in stabilizing transactions, which involves making bids for, purchasing and selling shares of common stock in the open market for the purpose of preventing or retarding a decline in the market price of the common stock while this offering is in progress. These stabilizing transactions may include making short sales of the common stock, which involves the sale by the 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 on the open market to cover positions created by short sales. Short sales may be "covered" shorts, which are short positions in an amount not greater than the underwriters' over-allotment option referred to above, or may be "naked" shorts, which are short positions in excess of that amount. The underwriters may close out any covered short position either by 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 compared to the price at which the underwriters may purchase shares through the over-allotment option. 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 purchase in this offering. To the extent that the underwriters create a naked short position, they will purchase shares in the open market to cover the position.

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The underwriters have advised us and the selling stockholders that, pursuant to Regulation M of the Securities Act, they may also engage in other activities that stabilize, maintain or otherwise affect the price of the common stock, including the imposition of penalty bids. This means that if the representatives of the underwriters purchase common stock in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters that sold those shares as part of this offering to repay the underwriting discount received by them.

These activities may have the effect of raising or maintaining the market price of the common stock or preventing or retarding a decline in the market price of the common stock, and, as a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on the Nasdaq Global Select 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 our common stock on the Nasdaq Global Select Market prior to the pricing and completion of this offering. Passive market making consists of displaying bids on the Nasdaq Global Select 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 generally 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 our common stock to be higher than the price that otherwise would exist in the open market in the absence of these transactions. If passive market making is commenced, it may be discontinued at any time.

Other than in the United States, no action has been taken by us, the selling stockholders or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

This document is only being distributed to and is only directed at (i) persons who are outside the United Kingdom or (ii) to investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order") or (iii) high net worth entities, and other persons to whom it may lawfully be communicated, falling with Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons"). The securities are only available to, and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such securities will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this document or any of its contents.

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State"), from and including the date on which the European Union Prospectus Directive (the "EU Prospectus Directive") is implemented in that Relevant Member State (the "Relevant Implementation Date") an offer of securities described in this prospectus may not be made to the public in that Relevant Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that

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Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the EU Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of shares to the public in that Relevant Member State at any time:

to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts;

to fewer than 100 natural or legal persons (other than qualified investors as defined in the EU Prospectus Directive) subject to obtaining the prior consent of the book-running managers for any such offer; or

in any other circumstances which do not require the publication by the Issuer of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer of securities to the public" in relation to any securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe for the securities, as the same may be varied in that Member State by any measure implementing the EU Prospectus Directive in that Member State and the expression EU Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

LEGAL MATTERS

The validity of the common stock offered pursuant to this prospectus supplement has been passed upon for us by our counsel, Nixon Peabody LLP, Boston, Massachusetts. Richard M. Stein, a partner of Nixon Peabody LLP, is a director and Secretary of Bruker. Dewey & LeBoeuf LLP, New York, New York, is counsel for the underwriters in connection with the offering.

EXPERTS

The consolidated financial statements of Bruker Corporation appearing in Bruker Corporation's Annual Report on Form 10-K for the year ended December 31, 2008 (including the schedule appearing therein), and the effectiveness of Bruker Corporation's internal control over financial reporting as of December 31, 2008 (excluding the internal control over financial reporting of Bruker BioSpin) have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in its reports thereon, which as to the report on the effectiveness of Bruker Corporation's internal control over financial reporting contains an explanatory paragraph describing the above referenced exclusion of Bruker BioSpin from the scope of management's assessment and from the scope of such firm's audit of internal control over financial reporting, included therein, and incorporated herein by reference. Such financial statements have been incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

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WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement and the accompanying prospectus are part of the registration statement on Form S-3 we filed with the SEC under the Securities Act on June 15, 2009 and that was declared effective on June 23, 2009, and do not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus supplement or the accompanying prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference in this prospectus supplement and the accompanying prospectus for a copy of such contract, agreement or other document.

We file annual, quarterly and current reports, proxy statements and other information with the SEC under the Exchange Act. You may read and copy this information, or obtain copies of this information by mail, at prescribed rates, from the SEC's Public Reference Room at the following location: United States Securities and Exchange Commission, 100 F Street, N.E., Room 1580, 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. The SEC also maintains a website at <http://www.sec.gov> that contains reports, proxy statements and other information about issuers, like us, who file electronically with the SEC.

INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus supplement and the accompanying prospectus. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. Any statement contained or incorporated by reference in this prospectus supplement and the accompanying prospectus shall be deemed to be modified or superseded for purposes of this prospectus supplement and the accompanying 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 supplement and the accompanying prospectus.

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 supplement and before all of the securities offered by this prospectus supplement and the accompanying prospectus are sold are incorporated by reference from the date of filing of the documents, except for information "furnished" under Item 2.02 and Item 7.01 of Form 8-K or other information "furnished" to the SEC, which is not deemed filed and not incorporated by reference in this prospectus supplement. Information that we file with the SEC will automatically update and may replace information in this prospectus supplement and information previously filed with the SEC.

The SEC file number for all of the following incorporated documents is 000-30833.

our Annual Report on Form 10-K for the year ended December 31, 2008;

our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2009 and June 30, 2009;

our Definitive Proxy Statement on Schedule 14A, filed on April 6, 2009;

our Current Report on Form 8-K filed on March 26, 2009; and

the description of our common stock contained in our Registration Statement on Form 8-A, filed on June 20, 2000, and any amendment or reports filed with the SEC for purposes of updating such description.

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You may obtain any of these incorporated documents through us, or from the SEC through the SEC's website at the address noted above. Documents incorporated by reference are available from us without charge, excluding any exhibits to these documents unless the exhibit is specifically incorporated by reference, by requesting them from us in writing or by telephone at the following address:

Investor Relations
Bruker Corporation
40 Manning Road
Billerica, MA 01821
(978) 663-3660

Documents may also be available on our website in the investor relations section at <http://ir.bruker.com>. Information contained on our website is not a prospectus and does not constitute part of this prospectus supplement or the accompanying prospectus.

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PROSPECTUS

BRUKER CORPORATION

Common Stock

We may offer and sell, from time to time, up to 35,000,000 primary shares of our common stock. In addition, the selling stockholders named under the heading "Selling Stockholders" in this prospectus may offer and sell, from time to time, up to 35,000,000 secondary shares of our common stock. We will not receive any of the proceeds from the sale of the selling stockholders' shares. Neither we nor the selling stockholders are required to sell any of these shares.

We or the selling stockholders may offer for sale the shares of our common stock in a number of different ways and at market prices prevailing at the time of sale or at privately negotiated prices, as we more fully describe in the section entitled "Plan of Distribution" in this prospectus. When we or the selling stockholders offer shares of our common stock, we will provide the specific terms of the offerings in supplements to this prospectus. The prospectus supplement for each offering will describe in detail the plan of distribution for that offering and will set forth the names of any underwriters, dealers or agents involved in the offering and any applicable fees, commissions, or discount arrangements. You should read this prospectus and any accompanying prospectus supplement carefully before you make your investment decision.

Our common stock is traded on the Nasdaq Global Select Market under the symbol "BRKR." On June 12, 2009, the reported last sale price of our common stock on the Nasdaq Global Select Market was \$8.36 per share.

Investing in our common stock involves risks. See "Risk Factors" beginning on page 1.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of the prospectus is June 23, 2009.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement we filed with the Securities and Exchange Commission, or SEC, using the "shelf" registration process. Under the shelf registration process, using this prospectus, together with a prospectus supplement, we may, from time to time, offer and sell up to an aggregate of 35,000,000 primary shares of our common stock, in one or more offerings and at prices and on terms that we determine at the time of the offering. In addition, the selling stockholders named in this prospectus under the caption "Selling Stockholders" may offer and sell, from time to time, in one or more offerings, up to an aggregate of 35,000,000 secondary shares of our common stock.

Each time we or the selling stockholders offer and sell shares of our common stock pursuant to this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add to, update or change information contained in this prospectus and, accordingly, to the extent inconsistent, the information in this prospectus is superseded by the information in the prospectus supplement. You should read this prospectus, the applicable prospectus supplement and the additional information incorporated by reference in this prospectus described below under the heading "Where You Can Find More Information" before making an investment decision. This prospectus may not be used to sell shares of our common stock unless accompanied by a prospectus supplement.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of the documents referred to herein have been filed, or will be filed or incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading "Where You Can Find More Information."

You should rely only on the information contained in or incorporated by reference in this prospectus or a prospectus supplement. We have not authorized anyone to provide you with different information. We are not making an offer to sell these securities in any jurisdiction where the offer or sale of these securities is not permitted. You should not assume that information contained in this prospectus, in any supplement to this prospectus, or in any document incorporated by reference in this prospectus is accurate as of any date other than the date on the front page of the document that contains the information, regardless of when this prospectus is delivered or when any sale of our securities occurs. Our business, financial condition and results of operations may have changed since then.

The words "Bruker," "we," "us" and "our" as used in this prospectus refer only to Bruker Corporation and its consolidated subsidiaries, except where the context otherwise requires or as otherwise indicated.

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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, as amended, or the Exchange Act. You may read and copy this information, or obtain copies of this information by mail, at prescribed rates, from the SEC's Public Reference Room at the following location:

United States Securities and Exchange Commission
100 F Street, N.E.
Room 1580
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. The SEC also maintains a website at <http://www.sec.gov> that contains reports, proxy statements and other information about issuers, like us, who file electronically with the SEC.

The SEC allows us to "incorporate by reference" into this prospectus. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. 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.

This prospectus incorporates by reference the documents listed below that we have previously filed with the SEC (excluding any portions of such documents that have been "furnished" but not "filed" for purposes of the Exchange Act). The SEC file number for all of the incorporated documents is 000-30833.

Our Annual Report on Form 10-K for the year ended December 31, 2008, filed on March 16, 2009

Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2009, filed on May 11, 2009

Our Definitive Proxy Statement on Schedule 14A, filed on April 6, 2009

Our Current Reports on Form 8-K filed on January 14, 2009, March 3, 2009, March 26, 2009, April 16, 2009, April 30, 2009, May 12, 2009 and June 9, 2009, each to the extent "filed" and not "furnished" pursuant to Section 13(a) of the Exchange Act

The description of our common stock contained in our Registration Statement on Form 8-A, filed on June 20, 2000, and any amendment or reports filed with the SEC for purposes of updating such description

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 securities offered by this prospectus are sold are incorporated by reference in this prospectus from the date of filing of the documents, except for information "furnished" under Item 2.02 and Item 7.01 of Form 8-K or other information "furnished" to the SEC, 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.

You may obtain any of these incorporated documents through us, or from the SEC through the SEC's website at the address noted above. Documents incorporated by reference are available from us

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

Investor Relations
Bruker Corporation
40 Manning Road
Billerica, MA 01821
(978) 663-3660

Documents may also be available on our website in the investor relations section at <http://www.bruker.com>. Information contained on our website is not a prospectus and does not constitute part of this prospectus.

SPECIAL NOTE ABOUT FORWARD-LOOKING STATEMENTS

Certain statements made in this prospectus (including documents incorporated by reference) may constitute "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. The words "believes," "anticipates," "plans," "expects," "seeks," "estimates," "should," "will" and similar expressions generally identify forward-looking statements. These forward-looking statements are subject to certain risks and uncertainties that could cause actual results and events to differ materially from those anticipated in the forward-looking statements.

Potential risks and uncertainties which could adversely affect our ability to obtain these results include, without limitation, the following factors: (a) adverse changes in conditions in the global economy and volatility in the capital markets, (b) the integration of businesses we have acquired or may acquire in the future, (c) changing technologies, (d) product development and market acceptance of our products, (e) the cost and pricing of our products, (f) manufacturing, (g) competition, (h) dependence on collaborative partners and key suppliers, (i) capital spending and government funding policies, (j) changes in governmental regulations, (k) intellectual property rights, (l) litigation and (m) exposure to foreign currency fluctuations.

For a discussion of important risks of an investment in our common stock, including factors that could cause actual results to differ materially from results referred to in the forward-looking statements, see "Risk Factors" beginning on page 1 of this prospectus. Except as required by law, we are not responsible for updating or revising any forward-looking statements, whether as a result of new information, future events or otherwise.

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BRUKER CORPORATION

Bruker is a global designer and manufacturer of proprietary life science and materials research systems and associated products that address the rapidly evolving needs of a diverse array of customers in life science, pharmaceutical, biotechnology and molecular diagnostics research, as well as in materials and chemical analysis in various industries and government applications. Our core technology platforms include X-ray technologies, magnetic resonance technologies, mass spectrometry technologies, optical emission spectroscopy and infrared and Raman molecular spectroscopy technologies. We also manufacture and distribute a broad range of field analytical systems for chemical, biological, radiological, nuclear and explosives, or CBRNE, detection. We also develop and manufacture low temperature and high temperature superconductors and superconducting devices for use in advanced magnet technology, physics research and energy applications. We maintain major technical and manufacturing centers in Europe, North America and Japan and we have sales offices located throughout the world.

Bruker was incorporated in Massachusetts as Bruker Federal Systems Corporation. In February 2000, we reincorporated in Delaware as Bruker Daltonics Inc. In July 2003, we merged with Bruker AXS Inc., and we were the surviving corporation in that merger. In connection with that merger, we changed our name to Bruker BioSciences Corporation and formed two operating subsidiaries, Bruker Daltonics and Bruker AXS. In July 2006, we acquired Bruker Optics Inc. In February 2008, we acquired the Bruker BioSpin group of companies and changed our name to Bruker Corporation. Both Bruker Corporation and Bruker BioSpin were majority owned by six affiliated shareholders prior to the February 2008 acquisition. As a result, the acquisition of Bruker BioSpin was considered a business combination of companies under common control and was accounted for at historical carrying values. The financial statements and other financial information incorporated by reference in this prospectus have been prepared on a combined basis and include the financial position and results of operations of Bruker BioSpin as if it had been a part of Bruker Corporation for all periods presented.

Our five primary operating divisions are Bruker AXS, Bruker BioSpin, Bruker Daltonics, Bruker Optics and Bruker Advanced Supercon. Bruker AXS is in the business of designing, manufacturing and distributing advanced X-ray, spark-OES and AFM instrumentation used in molecular, materials and elemental analysis. Bruker BioSpin is in the business of manufacturing and distributing life science tools based on magnetic resonance technology. Bruker Daltonics is in the business of designing, manufacturing and distributing life-science mass spectrometry instruments and solutions for proteomics, metabolomics and clinical research applications. Bruker Daltonics also designs, manufactures and distributes various analytical instruments for chemical, biological, radiological, nuclear and explosives (CBRNE) detection. Bruker Optics is in the business of designing, manufacturing and distributing research, analytical and process analysis instruments and solutions based on infrared and Raman molecular spectroscopy technologies. Bruker Advanced Supercon develops and produces low temperature superconductors used primarily in magnetic resonance technologies, high-energy physics and nuclear fusion research magnet applications and high temperature superconductors for use in energy and other applications, as well as superconducting devices for these same markets.

Our principal executive offices are located at 40 Manning Road, Billerica, MA 01821, and our telephone number is (978) 663-3660.

RISK FACTORS

You should carefully consider the following risks and all of the other information set forth or incorporated by reference in this prospectus before making an investment decision. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment. Please note that additional risks not presently known to us or that we currently deem immaterial

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may also impair our business and operations. In addition, please read "Special Note About Forward-Looking Statements" where we describe additional uncertainties associated with our business and the forward-looking statements included or incorporated by reference in this prospectus. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks faced by us described below and elsewhere included or incorporated by reference in this prospectus.

Risks Related to Our Business

A prolonged downturn in global economic conditions may materially adversely affect our business.

Our business and results of operations are affected by international, national and regional economic conditions. Financial markets in the United States, Europe and Asia have been experiencing extreme disruption in recent months, including, among other things, extreme volatility in security prices, severely diminished liquidity and credit availability, ratings downgrades of certain investments and declining values of others. The global economy has entered a recession. We are unable to predict the likely duration and severity of the current disruptions in financial markets, credit availability, and adverse economic conditions throughout the world. These economic developments affect businesses such as ours and those of our customers in a number of ways that could result in unfavorable consequences to us. Current economic conditions or a deepening economic downturn in the United States and elsewhere, or reductions in the level of government funding for scientific research, may cause our current or potential customers to delay or reduce purchases which could, in turn, result in reductions in sales of our products, materially and adversely affecting our results of operations and cash flows. Volatility and disruption of global financial markets could limit our customers' ability to obtain adequate financing to maintain operations and proceed with planned or new capital spending initiatives, leading to a reduction in sales volume that could materially and adversely affect our results of operations and cash flow. In addition, a decline in our customers' ability to pay as a result of the economic downturn may lead to increased difficulties in the collection of our accounts receivable, higher levels of reserves for doubtful accounts and write-offs of accounts receivable, and higher operating costs as a percentage of revenues.

If our products fail to achieve and sustain sufficient market acceptance across their broad intended range of applications, we will not generate expected revenue.

Our business strategy depends on our ability to successfully commercialize a broad range of products based on our core technology platforms, including X-ray technologies, magnetic resonance technologies, mass spectrometry technologies, vibrational spectroscopy technologies and superconducting magnet technologies for use in a variety of life science, chemistry and materials analysis applications. Some of our products have only recently been commercially launched and have achieved only limited sales to date. The commercial success of our products depends on our obtaining continued and expanding market acceptance of our products by our diverse industrial, academic, medical research and governmental customers around the world. We may fail to achieve or sustain substantial market acceptance for our products across the full range of our intended applications or in one or more of our principal intended applications. Any such failure could decrease our sales and revenue. To succeed, we must convince substantial numbers of potential customers to invest in new systems or replace their existing techniques with X-ray, magnetic resonance, mass spectrometry and vibrational spectroscopy techniques employing our systems. Limited funding available for capital acquisitions by our customers, as well as our customers' own internal purchasing approval policies, could hinder market acceptance of our products. Our intended customers may be reluctant to make the substantial capital investment generally needed to acquire our products or to incur the training and other costs involved with replacing their existing systems with our products. We also may not be able to convince our intended customers that our systems are an attractive and cost-effective alternative to

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other technologies and systems for the acquisition, analysis and management of molecular information. Because of these and other factors, our products may fail to gain or sustain market acceptance.

Our products compete in markets that are subject to rapid technological change, and one or more of the technologies underlying our products could be made obsolete by new technology.

The market for discovery and analysis tools is characterized by rapid technological change and frequent new product introductions. Rapidly changing technology could make some or all of our product lines obsolete unless we are able to continually improve our existing products and develop new products. Because substantially all of our products are based on our core technology platforms, including X-ray technologies, magnetic resonance technologies, mass spectrometry technologies, vibrational spectroscopy and superconducting magnet technologies, we are particularly vulnerable to any technological advances that would make certain of these techniques obsolete as the basis for analytical systems in any of our markets. To meet the evolving needs of our customers, we must rapidly and continually enhance our current and planned products and services and develop and introduce new products and services. In addition, our product lines are based on complex technologies which are subject to rapid change as new technologies are developed and introduced in the marketplace. We may have difficulty in keeping abreast of the rapid changes affecting each of the different markets we serve or intend to serve. If we fail to develop and introduce products in a timely manner in response to changing technology, market demands or the requirements of our customers, our product sales may decline, and we could experience significant losses.

If we are unable to make or complete future mergers, acquisitions or strategic alliances as a part of our growth strategy, or integrate recent or future mergers, acquisitions or strategic alliances, our business development may suffer.

Our strategy potentially includes expanding our technology base through selected mergers, acquisitions and strategic alliances. We may seek to continue to expand our technology base through mergers, acquisitions and strategic alliances. If we fail to effect mergers, acquisitions and strategic alliances, our technology base may not expand as quickly and efficiently as possible. Without such complementary growth from selected mergers, acquisitions and strategic alliances, our ability to keep up with the evolving needs of the markets we serve and to meet our future performance goals could be adversely affected. However, we may not be able to find attractive candidates, or enter into mergers, acquisitions or strategic alliances on terms that are favorable to us, or successfully integrate the operations of companies that we acquire. In addition, we may compete with other companies for these merger, acquisition or strategic alliance candidates, which could make such a transaction more expensive for us. If we are able to successfully identify and complete a merger, acquisition or strategic alliance, it could involve a number of risks, including, among others:

the difficulty of coordinating or consolidating geographically separate organizations and integrating personnel with different business backgrounds and corporate cultures;

the difficulty of integrating previously autonomous departments in accounting and finance, sales and marketing, distribution, and administrative functions, and expanding and integrating information and management systems;

the diversion of resources and management time;

the potential disruption of our ongoing business;

the potential impairment of relationships with customers as a result of changes in management or otherwise arising out of such transactions; and

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the significantly increased risk of key management or key employees leaving the acquired companies within the first 1-2 years after the acquisition, including the risk that they may complete with us subsequently.

If we are not able to successfully integrate acquired businesses, we may not be able to realize all of the cost savings and other benefits that we expect to result from the transactions.

Our business could be harmed if our collaborations fail to advance our product development.

Demand for our products will depend in part upon the extent to which our collaborations with pharmaceutical, biotechnology and proteomics companies are successful in developing, or helping us to develop, new products and new applications for our existing products. In addition, we collaborate with academic institutions and government research laboratories on product development. We have limited or no control over the resources that any collaborator may devote to our products. Any of our present or future collaborators may not perform their obligations as expected. If we fail to enter into or maintain appropriate collaboration agreements, or if any of these events occur, we may not be able to develop some of our new products, which could materially impede our ability to generate revenue or profits.

We face substantial competition.

We face substantial competition and we expect that competition in all of our markets will increase further. Currently, our principal competition comes from established companies providing products using existing technologies, including mass spectrometry, X-ray technology, optical emission spectrometry technology, vibrational spectroscopy, CBRNE detection technologies, TD-NMR technologies and other technologies, which perform many of the same functions for which we market our products. Other companies also may choose to enter our fields in the future. Our competitors may develop or market products that are more effective or commercially attractive than our current or future products or that may render our products obsolete. Competition has in the past and is likely in the future to subject our products to pricing pressure. Many of our competitors have more experience in the market and substantially greater financial, operational, marketing and technical resources than we do which could give them a competitive edge in areas such as research and development, production, marketing and distribution. Our ability to compete successfully will depend, in part, on our ability to develop proprietary products that reach the market in a timely manner and are technologically superior to, less expensive than, or more cost-effective than, other currently marketed products.

If we are unable to recover significant development costs of one or more of our products or product lines, our business, results of operations and financial condition may suffer.

We offer and plan to continue to offer a broad product line and incur and expect to continue to incur substantial expenses for the development of new products and enhanced versions of our existing products. Our business model calls for us to derive a significant portion of our revenues each year from products that did not exist in the previous two years. However, we may experience difficulties which may delay or prevent the successful development, introduction and marketing of new products or product enhancements. The speed of technological change in life science and other related markets we serve may prevent us from successfully marketing some or all of our products for the length of time required to recover their often significant development costs. If we fail to recover the development costs of one or more products or product lines, our business, results of operations and financial condition could be harmed.

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If we lose our strategic partners, our marketing efforts could be impaired.

A substantial portion of our sales of selected products consists of sales to third parties who incorporate our products in their systems. These third parties are responsible for the marketing and sales of their systems. We have little or no control over their marketing and sales activities or how they use their resources. Our present or future strategic partners may or may not purchase sufficient quantities of products from us or perform appropriate marketing and sales activities. In addition, if we are unable to maintain our relationships with strategic partners, our business may suffer. Failures by our present or future strategic partners, or our inability to maintain or enter into new arrangements with strategic partners for product distribution, could materially impede the growth of our business and our ability to generate sufficient revenue and profits.

If general health care spending patterns decline, our ability to generate revenue may suffer.

We are dependent, both directly and indirectly, upon general health care spending patterns, particularly in the research and development budgets of the pharmaceutical and biotechnology industries, as well as upon the financial condition and funding priorities of various governments and government agencies. Since our inception, both we and our academic collaborators and customers have benefited from various governmental contracts and research grants. Whether we or our academic collaborators will continue to be able to attract these grants depends not only on the quality of our products, but also on general spending patterns of public institutions.

Any reduction in the capital resources or government funding of our customers could reduce our sales and impede our ability to generate revenue.

A significant portion of our sales are capital purchases by our customers. The spending policies of our customers could have a significant effect on the demand for our products. These policies are based on a wide variety of factors, including the resources available to make purchases, the spending priorities among various types of equipment, policies regarding spending during recessionary periods and changes in the political climate. Any changes in capital spending or changes in the capital budgets of our customers could significantly reduce demand for our products. The capital resources of our life science and other corporate customers may be limited by the availability of equity or debt financing. Any significant decline in research and development expenditures by our life science customers could significantly decrease our sales. In addition, we make a substantial portion of our sales to non-profit and government entities which are dependent on government support for scientific research. Any decline in this support could decrease the ability of these customers to purchase our products.

Our operations are dependent upon a limited number of suppliers and contract manufacturers.

We currently purchase components used in our products from a limited number of outside suppliers. Our reliance on a limited number of suppliers could result in time delays associated with redesigning a product due to an inability to obtain an adequate supply of required components and reduced control over pricing, quality and timely delivery. Any of these factors could adversely affect our revenues and profitability. For example, we currently purchase key components used in our mass spectrometry, vibrational spectroscopy and X-ray systems from certain suppliers. In particular, Bruker AXS obtains a sophisticated chip for use in its CCD detectors from Fairchild Imaging which, to Bruker AXS' knowledge, is the only source of a chip of this size and quality. The X-ray microanalysis business of Bruker AXS, which manufactures and sells accessories for electron microscopes, is partially dependent on cooperation from larger manufacturers of electron microscopes. Additionally, Bruker Daltonics purchases certain magnets from a single supplier, Varian/Magnex, and also obtains certain key components for the manufacture of its ion traps from Agilent, the sole supplier of these components. Our Bruker-Elemental subsidiary purchases certain optical detectors from a single supplier, PerkinElmer, Inc., the sole supplier of these detector components. Bruker Optics purchases its

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focal plane array detectors from a single supplier, Lockheed Martin Corporation. Similarly, Bruker BioSpin obtains various components from sole or limited source suppliers and Bruker Advanced Supercon obtains various raw materials and key production equipment from sole or limited source suppliers. There are limited, if any, available alternatives to these suppliers. The existence of shortages of these components or the failure of delivery with regard to these components could have a material adverse effect upon our revenues and margins. In addition, price increases from these suppliers could have a material adverse effect upon our gross margins.

Because of the scarcity of some components, we may be unable to obtain an adequate supply of components, or we may be required to pay higher prices or to purchase components of lesser quality. Any delay or interruption in the supply of these or other components could impair our ability to manufacture and deliver our products, harm our reputation and cause a reduction in our revenues. In addition, any increase in the cost of the components that we use in our products could make our products less competitive and decrease our gross margins. We may not be able to obtain sufficient quantities of required components on the same or substantially the same terms. Additionally, consolidations among our suppliers could result in other sole source suppliers for us in the future.

Increasing prices of metal raw materials and superconducting wire could adversely affect the gross margins and profitability of our Bruker BioSpin subsidiary, and of our Bruker Advanced Supercon business.

The last few years have seen sharp increases in the prices for various raw materials, in part due to high demand from developing countries. Both Bruker BioSpin and Bruker Advanced Supercon rely on some of these materials for the production of their products. In particular, for its superconducting magnet production, both for the horizontal and vertical magnet series, Bruker BioSpin relies on the availability of copper, steel and the metallic raw materials for traditional low-temperature superconducting wires. Higher prices for these commodities will increase the production cost of superconducting wires and superconducting magnets and may adversely affect gross margins.

The prices of copper and certain other raw materials used for superconductors have increased significantly over the last decade. Since copper is a main constituent of low temperature superconductors, this may affect the price of superconducting wire. This type of increase would have an immediate effect on the production costs of superconducting magnets and may negatively affect the profit margins for those products. In addition, an increase in raw material cost affects the production cost of the superconducting wire produced by Bruker Advanced Supercon and of superconducting wire used by Bruker BioSpin.

The emerging risk of liquid helium becoming scarce and significantly more expensive could dampen the demand for NMR, EPR, MRI and FTMS products.

The demand for helium has risen sharply over the last decade. The superconducting magnets used in magnetic resonance rely on liquid helium for their operation. The high global demand, in combination with a shortage in supply, has caused prices for liquid helium to rise significantly. This has an adverse effect on the operating costs for magnetic resonance equipment, and may dampen demand for NMR, EPR, MRI and FTMS magnets in the future.

Our manufacture and sale of products could lead to product liability claims for which we could have substantial liability.

The manufacture and sale of our products exposes us to product liability claims if any of our products cause injury or are found otherwise unsuitable during manufacturing, marketing, sale or customer use. In particular, if one of our CBRNE detection products malfunctions, this could lead to civilian or military casualties in a time of unrest, exposing us to increased potential for high-profile liability. If our CBRNE detection products malfunction by generating a false-positive to a potential

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threat, we could be exposed to liabilities associated with actions taken that otherwise would not have been required. Additionally, the nuclear magnetic resonance, research magnetic resonance imaging, Fourier transform mass spectrometry and certain electron paramagnetic resonance magnets of Bruker BioSpin utilize high magnet fields and cryogenics to operate at approximately 4 Kelvin, the temperature of liquid helium. There is an inherent risk of potential product liability due to the existence of these high magnetic fields, associated stray fields outside the magnet, and the handling of the cryogenics associated with superconducting magnets. In addition, the Bruker Daltonics MALDI Biotyper has an IVD-CE mark and is used for the identification of microorganisms. Misidentification or a false-negative of certain bacteria, yeasts or fungi could lead to inappropriate treatment for patients, and could expose Bruker Daltonics to product liability.

A successful product liability claim brought against us in excess of, or outside the coverage of, our insurance coverage could have a material adverse effect on our business, financial condition and results of operations. We may not be able to maintain product liability insurance on acceptable terms, if at all, and insurance may not provide adequate coverage against potential liabilities.

Responding to claims relating to improper handling, storage or disposal of hazardous chemicals and radioactive and biological materials which we use could be time consuming and costly.

We use controlled hazardous and radioactive materials in our business and generate wastes that are regulated as hazardous wastes under United States federal, and Massachusetts, California and Wisconsin state, environmental and atomic energy regulatory laws and under equivalent provisions of law in those jurisdictions in which our research and manufacturing facilities are located. Our use of these substances and materials is subject to stringent, and periodically changing, regulation that can impose costly compliance obligations on us and have the potential to adversely affect our manufacturing activities. The risk of accidental contamination or injury from these materials cannot be completely eliminated. If an accident with these substances occurs, we could be held liable for any damages that result, in addition to incurring clean-up costs and liabilities, which can be substantial. Additionally, an accident could damage our research and manufacturing facilities resulting in delays and increased costs.

In addition to the risks applicable to our life science and materials analysis products, our CBRNE detection products are subject to a number of additional risks, including lengthy product development and contract negotiation periods and certain risks inherent in long-term government contracts.

Our CBRNE detection products are subject to many of the same risks associated with our life science products, including vulnerability to rapid technological change, dependence on mass spectrometry and other technologies and substantial competition. In addition, our CBRNE detection products and FT-IR products are generally sold to government agencies under long-term contracts. These contracts generally involve lengthy pre-contract negotiations and product development. We may be required to devote substantial working capital and other resources prior to obtaining product orders. As a result, we may incur substantial costs before we recognize revenue from these products. Moreover, in return for larger, longer-term contracts, our customers for these products often demand more stringent acceptance criteria. These criteria may also cause delays in our ability to recognize revenue from sales of these products. Furthermore, we may not be able to accurately predict in advance our costs to fulfill our obligations under these long-term contracts. If we fail to accurately predict our costs, due to inflation or other factors, we could incur significant losses. Also, the presence or absence of such contracts may cause substantial variation in our results of operations between fiscal periods and, as a result, our results of operations for any given fiscal period may not be predictive of our results for subsequent fiscal periods. The resulting uncertainty may have an adverse impact on our stock price.

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We are subject to existing and potential additional regulation and government inquiry, which can impose burdens on our operations and narrow the markets for our products.

We are subject, both directly and indirectly, to the adverse impact of existing and potential future government regulation of our operations and markets. For example, exportation of our products, particularly our CBRNE detection products, is subject to strict regulatory control in a number of jurisdictions. The failure to satisfy export control criteria or obtain necessary clearances could delay or prevent shipment of products, which could adversely affect our revenues and profitability. Moreover, the life sciences industry, which is the market for our principal products, has historically been heavily regulated. There are, for example, laws in several jurisdictions restricting research in genetic engineering, which can operate to narrow our markets. Given the evolving nature of this industry, legislative bodies or regulatory authorities may adopt additional regulation that adversely affects our market opportunities. Additionally, if ethical and other concerns surrounding the use of genetic information, gene therapy or genetically modified organisms become widespread, we may have less demand for our products. Our business is also directly affected by a wide variety of government regulations applicable to business enterprises generally and to companies operating in the life sciences industry in particular. We note that, as a result of developing and selling products which are the subject of such regulation, we have been, are, and expect to be in the future, subject to inquiries from the government agencies which enforce these regulations, including the U.S. Department of State, the U.S. Department of Commerce, the U.S. Food and Drug Administration, the U.S. Internal Revenue Service, the U.S. Department of Homeland Security, the U.S. Department of Justice, the Securities and Exchange Commission, the Federal Trade Commission, the U.S. Customs and Border Protection and the U.S. Department of Defense, among others, as well as from state or foreign governments and their departments and agencies. As a result, from time to time, the attention of our management and other resources may be diverted to attend to these inquiries. In addition, failure to comply with these regulations or obtain or maintain necessary permits and licenses could result in a variety of fines or other censures or an interruption in our business operations which may have a negative impact on our ability to generate revenues. Finally, our compliance with existing regulations, such as the Sarbanes-Oxley Act of 2002, may have a material adverse impact on us. Under Section 404 of Sarbanes-Oxley, we are required to evaluate and determine the effectiveness of our internal control structure and procedures for financial reporting. Compliance with this legislation may divert management's attention and resources and cause us to incur significant expense.

Our success depends on our ability to operate without infringing or misappropriating the proprietary rights of others.

Our commercial success depends on avoiding the infringement of other parties' patents and proprietary rights as well as avoiding the breach of any licenses relating to our technologies and products. Given that there may be patents of which we are unaware, particularly in the U.S. where patent applications are confidential, avoidance of patent infringement may be difficult. Various third-parties hold patents which may relate to our technology, and we may be found in the future to infringe these or other patents or proprietary rights of third parties, either with products we are currently marketing or developing or with new products which we may develop in the future. If a third party holding rights under a patent successfully asserts an infringement claim with respect to any of our current or future products, we may be prevented from manufacturing or marketing our infringing product in the country or countries covered by the patent we infringe, unless we can obtain a license from the patent holder. We may not be able to obtain a license on commercially reasonable terms, if at all, especially if the patent holder is a competitor. In addition, even if we can obtain the license, it may be non-exclusive, which will permit others to practice the same technology licensed to us. We also may be required to pay substantial damages to the patent holder in the event of an infringement. Under some circumstances in the U.S., these damages could include damages equal to triple the actual damages the patent holder incurs. If we have supplied infringing products to third parties for marketing

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by them or licensed third parties to manufacture, use or market infringing products, we may be obligated to indemnify these third parties for any damages they may be required to pay to the patent holder and for any losses the third parties may sustain themselves as the result of lost sales or license payments they are required to make to the patent holder. Any successful infringement action brought against us may also adversely affect marketing of the infringing product in other markets not covered by the infringement action, as well as our marketing of other products based on similar technology. Furthermore, we will suffer adverse consequences from a successful infringement action against us even if the action is subsequently reversed on appeal, nullified through another action or resolved by settlement with the patent holder. The damages or other remedies awarded, if any, may be significant. As a result, any successful infringement action against us may harm our business.

If we are unable to effectively protect our intellectual property, third parties may use our technology, which would impair our ability to compete in our markets.

Our continued success will depend in significant part on our ability to obtain and maintain meaningful patent protection for our products throughout the world. We rely on patents to protect a significant part of our intellectual property and to enhance our competitive position. However, our presently pending or future patent applications may not issue as patents, and any patent previously issued to us may be challenged, invalidated, held unenforceable or circumvented. Furthermore, the claims in patents which have been issued, or which may be issued to us in the future, may not be sufficiently broad to prevent third parties from producing competing products similar to our products. In addition, the laws of various foreign countries in which we compete may not protect our intellectual property to the same extent as do the laws of the U.S. Failure to obtain adequate patent protection for our proprietary technology could materially impair our ability to be commercially competitive.

In addition to patent protection, we also rely on the protection of trade secrets, know-how and confidential and proprietary information. To maintain the confidentiality of trade secrets and proprietary information, we generally seek to enter into confidentiality agreements with our employees, consultants and strategic partners upon the commencement of a relationship with us. However, we may not obtain these agreements in all circumstances. In the event of unauthorized use or disclosure of this information, these agreements, even if obtained, may not provide meaningful protection for our trade secrets or other confidential information. In addition, adequate remedies may not exist in the event of unauthorized use or disclosure of this information. The loss or exposure of our trade secrets and other proprietary information would impair our competitive advantages and could have a material adverse affect on our operating results, financial condition and future growth prospects. Furthermore, others may have, or may in the future independently develop, substantially similar or superior know-how and technology.

We may be involved in lawsuits to protect or enforce our patents that are brought by us which could be expensive and time consuming and, if determined adversely, could adversely affect our patent position.

In order to protect or enforce our patent rights, we may initiate patent litigation against third parties, and we may be similarly sued by others. We may also become subject to interference proceedings conducted in the patent and trademark offices of various countries to determine the priority of inventions. The defense and prosecution, if necessary, of intellectual property suits, interference proceedings and related legal and administrative proceedings is costly and diverts our technical and management personnel from their normal responsibilities. We may not prevail in any of these suits. An adverse determination of any litigation or defense proceedings could put our patents at risk of being invalidated or interpreted narrowly and could put our patent applications at risk of not issuing.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be

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compromised by disclosure during this type of litigation. In addition, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments in the litigation. If securities analysts or investors perceive these results to be negative, it could have a substantial negative effect on the trading price of our common stock.

We are dependent upon various key personnel and must recruit additional qualified personnel for a number of management positions.

Our success is highly dependent on the continued services of key management, particularly our chief executive officer, Frank H. Laukien, as well as technical and scientific personnel. Our management and other employees may voluntarily terminate their employment with us at any time upon short notice. The loss of the services of any member of our senior management, technical or scientific staff may significantly delay or prevent the achievement of product development and other business objectives. Our future success will also depend on our ability to identify, recruit and retain additional qualified scientific, technical and managerial personnel. Competition for qualified personnel is intense, particularly in the areas of information technology, engineering and science, and the process of hiring suitably qualified personnel is often lengthy. If we are unable to hire and retain a sufficient number of qualified employees, our ability to conduct and expand our business could be seriously reduced.

We may not be able to maintain our sales and service staff to meet demand for our products and services.

Our future revenue and profitability will depend in part on our ability to maintain our team of marketing and service personnel. Because our products are technical in nature, we believe that our marketing, sales and support staff must have scientific or technical expertise and experience. Competition for employees with these skills is intense. We may not be able to continue to attract and retain sufficient qualified sales and service people, and we may not be able to maintain and develop an efficient and effective sales, marketing and support department. If we fail to continue to attract or retain qualified people, then our business could suffer.

We plan significant future growth, and there is a risk that we will not be able to manage this growth.

Our success will depend on the expansion of our operations. Effective growth management will place increased demands on our management, operational and financial resources. To manage our future growth, we must expand our facilities, augment our operational, financial and management systems, and hire and train additional qualified personnel. Our failure to manage this growth effectively could impair our ability to generate revenue or could cause our expenses to increase more rapidly than revenue, resulting in operating losses.

Armed hostilities could constrain our ability to conduct business internationally and could also disrupt our U.S. operations.

The current world unrest, or the responses of the United States, may lead to further acts of terrorism and civil disturbances in the United States or elsewhere, which may further contribute to the economic instability in the United States. These attacks or armed conflicts may affect our physical facilities or those of our suppliers or customers and could have an impact on our domestic and international sales, our supply chain, our production capability, our insurance premiums or the ability to purchase insurance and our ability to deliver our products to our customers. The consequences of these risks are unpredictable, and their long-term effect upon us is uncertain.

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We may be unable to integrate successfully the businesses of Bruker BioSpin and the combined company may not realize the anticipated benefits of the acquisition because of integration difficulties and other challenges.

The success of our combination with Bruker BioSpin will depend, in part, on our ability to realize the anticipated synergies, cost savings and growth opportunities from integrating the business of Bruker BioSpin with the business of Bruker Corporation. Our success in realizing these benefits and the timing of this realization depends upon the successful integration of the operations of Bruker BioSpin. The difficulties of combining the operations of the companies of Bruker BioSpin with those of Bruker Corporation's other operating subsidiaries, include, among others:

consolidating research and development operations while preserving the research and development activities and important relationships of each of the operating subsidiaries;

retaining key employees;

consolidating corporate and administrative infrastructures;

integrating and managing the technology of the companies; and

minimizing the diversion of management's attention from ongoing business concerns.

It is possible that the integration process could result in the loss of key employees, the disruption or interruption of, or the loss of momentum in, Bruker's ongoing businesses or inconsistencies in standards, controls, procedures and policies, any of which could adversely affect our ability to maintain relationships with customers and employees or our ability to achieve the anticipated benefits of the combination, or could reduce our earnings or otherwise adversely affect the business and financial results of the combined company.

Bruker BioSpin operates in a mature market and has achieved a high market share and, as a result, the potential for future growth may be limited.

The markets for NMR, MRI and EPR are well established. Bruker BioSpin has high market share and, as a result, future growth may be limited to the growth of the overall market for NMR, research MRI and EPR products. While this growth has been steady when measured over long time periods, future growth may depend on new applications developed by academic and industrial customers, and in most cases is outside our control.

Bruker BioSpin has always operated as a private company and may not yet have in place the financial organization, reporting and controls necessary for a public company.

Since its formation, Bruker BioSpin has always operated as a private company and prior to its acquisition had never put in place the financial organization, reporting and controls which are required for a U.S. public company. The cost of implementing this type of financial organization, reporting and controls may be significant, and compliance with U.S. public company requirements, including those implemented as part of the Sarbanes-Oxley Act of 2002, may have an adverse effect on the operations of the combined company. If those limitations caused us to miss a reporting deadline or otherwise not comply with an applicable law or regulation, we might, among other things, be unable to use a Form S-3 registration statement for twelve months, have a material weakness in our internal controls or violate our bank covenants.

We derive a significant portion of our revenue from international sales and are subject to the risks of doing business in foreign countries.

International sales account and are expected to continue to account for a significant portion of our total revenues. Our international operations are, and will continue to be, subject to a variety of risks associated with conducting business internationally, many of which are beyond our control. These risks,

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which may adversely affect our ability to achieve and maintain profitability and our ability to sell our products internationally, include:

changes in foreign currency exchange rates;

changes in regulatory requirements;

legislation and regulation, including tariffs, relating to the import or export of high technology products;

the imposition of government controls;

political and economic instability, including international hostilities, acts of terrorism and governmental restrictions, inflation, trade relationships and military and political alliances;

costs and risks of deploying systems in foreign countries;

compliance with export laws and controls in multiple jurisdictions;

limited intellectual property rights; and

the burden of complying with a wide variety of complex foreign laws and treaties, including unfavorable labor regulations, specifically those applicable to our European operations, as well as U.S. laws affecting the activities of U.S. companies abroad.

While the impact of these factors is difficult to predict, any one or more of these factors could adversely affect our operations in the future.

We may lose money when we exchange foreign currency received from international sales into U.S. dollars.

A significant portion of our business is conducted in currencies other than the U.S. dollar, which is our reporting currency. As a result, currency fluctuations among the U.S. dollar and the currencies in which we do business have caused and will continue to cause foreign currency transaction gains and losses. We recognize foreign currency gains or losses arising from our operations in the period incurred. In addition, currency fluctuations could cause the price of our products to be more or less competitive than our principal competitors' products. Currency fluctuations will increase or decrease our cost structure relative to those of our competitors which could lessen the demand for our products and affect our competitive position. We cannot predict the effects of exchange rate fluctuations upon our future operating results because of the number of currencies involved, the variability of currency exposures and the potential volatility of currency exchange rates. From time to time we enter into certain hedging transactions and/or option and foreign currency exchange contracts which are intended to offset some of the market risk associated with our sales denominated in foreign currencies. We cannot predict the effectiveness of these transactions or their impact upon our future operating results, and from time to time they may negatively affect our quarterly earnings.

Our reported financial results may be adversely affected by fluctuations in currency exchange rates.

Our exposure to currency exchange rate fluctuations results primarily from the currency translation exposure associated with the preparation of our consolidated financial statements and from the transaction exposure associated with transactions of our subsidiaries that are denominated in a currency other than the respective subsidiary's functional currency. While our financial results are reported in U.S. Dollars, the financial statements of many of our subsidiaries outside the United States are prepared using the local currency as the functional currency. During consolidation, these results are translated into U.S. Dollars by applying appropriate exchange rates. As a result, fluctuations in the

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exchange rate of the U.S. Dollar relative to the local currencies in which our foreign subsidiaries report therefore could cause significant fluctuations in our reported results. Moreover, as exchange rates vary, revenue and other operating results may differ materially from our expectations.

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Additionally, to the extent monetary assets and liabilities, including debt, are held in a different currency than the reporting subsidiary's functional currency, fluctuations in currency exchange rates may have a significant impact on our reported financial results, and may lead to increased earnings volatility. We may record significant gains or losses related to both the translation of assets and liabilities held by our subsidiaries into local currencies and the remeasurement of inter-company receivables and loan balances.

Our debt may adversely affect our cash flow and may restrict our investment opportunities or limit our activities.

In connection with the Bruker BioSpin acquisition we incurred \$351.0 million of debt under a new credit facility, of which approximately \$178.1 million remained outstanding at March 31, 2009. Our leverage could have negative consequences, including increasing our vulnerability to adverse economic and industry conditions, limiting our ability to obtain additional financing and limiting our ability to acquire new products and technologies through strategic acquisitions.

Our ability to satisfy our obligations depends on our future operating performance and on economic, financial, competitive and other factors beyond our control. Our business may not generate sufficient cash flow to meet these obligations. If we are unable to service our debt or obtain additional financing, we may be forced to delay strategic acquisitions, capital expenditures or research and development expenditures. We may not be able to obtain additional financing on terms acceptable to us or at all.

Additionally, the agreements governing our debt require that we maintain certain financial ratios related to maximum leverage and minimum interest coverage, and contain affirmative and negative covenants that restrict our activities by, among other limitations, limiting our ability to make certain payments; incur additional debt; incur certain liens; make certain investments, including derivative agreements; merge, consolidate, sell or transfer all or substantially all of our assets; and enter into certain transactions with affiliates.

Our ability to comply with these financial restrictions and covenants is dependent on our future performance, which is subject to prevailing economic conditions and other factors, including factors that are beyond our control such as foreign exchange rates and interest rates. Our failure to comply with any of these restrictions or covenants may result in an event of default under the applicable debt instrument, which could permit acceleration of the debt under that instrument and require us to prepay that debt before its scheduled due date.

Goodwill and other intangible assets are subject to impairment.

As a result of our acquisitions we have recorded goodwill and other intangible assets which must be periodically evaluated for potential impairment. We assess the realizability of the reported goodwill and other intangible assets annually, as well as whenever events or changes in circumstances indicate that the assets may be impaired. These events or circumstances generally include operating losses or a significant decline in the earnings associated with the reporting segment these acquisitions are reported within. A decline in our stock price and market capitalization may also cause us to consider whether goodwill and other intangible assets may require an impairment assessment. Our ability to realize the value of the goodwill will depend on the future cash flows of the reporting segment in addition to how well we integrate the businesses acquired.

Various international tax risks could adversely affect our earnings.

We are subject to international tax risks. Distributions of earnings and other payments received from our subsidiaries may be subject to withholding taxes imposed by the countries where they are operating or are formed. If these foreign countries do not have income tax treaties with the United

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States or the countries where our subsidiaries are incorporated, we could be subject to high rates of withholding taxes on these distributions and payments. We could also be subject to being taxed twice on income related to operations in these non-treaty countries. Because we are unable to reduce the taxable income of one operating company with losses incurred by another operating company located in another country, we may have a higher foreign effective income tax rate than that of other companies in our industry. The amount of the credit that we may claim against our U.S. federal income tax for foreign income taxes is subject to many limitations which may significantly restrict our ability to claim a credit for all of the foreign taxes we pay.

We currently have reserves established on the statutory books of certain international locations. Within our audited consolidated financial statements, which have been prepared under U.S. generally accepted accounting principles, the potential tax liabilities associated with these reserves have been recorded as long-term deferred tax liabilities. If these reserves are challenged, and we are unable to successfully defend the need for such reserves, these liabilities could become current resulting in a negative impact to our anticipated cash flows from operations over the next twelve months.

Risks Related to our Common Stock

The unpredictability and fluctuation of our quarterly results may adversely affect the trading price of our common stock.

Our revenues and results of operations have in the past and may in the future vary from quarter to quarter due to a number of factors, many of which are outside of our control and any of which may cause our stock price to fluctuate. The primary factors that may affect us include the following:

the timing of sales of our products and services;

the timing of recognizing revenue and deferred revenue under U.S. GAAP;

changes in our pricing policies or the pricing policies of our competitors;

increases in sales and marketing, product development or administration expenses;

the mix of services provided by us and third-party contractors;

our ability to attain and maintain quality levels for our products;

costs related to acquisitions of technology or businesses; and

the effectiveness of transactions entered into to hedge the risks associated with foreign currency and interest rate fluctuations.

Historically, we have experienced a decrease in revenue in the first, second and third quarters of each fiscal year relative to the prior fourth quarter, which we believe is due to our customers' budgeting cycles. These seasonal fluctuations may increase in the future as a result of the acquisition of Bruker BioSpin in February 2008. You should not rely on quarter-to-quarter comparisons of our results of operations as an indication of our future performance. It is likely that in some future quarters, our results of operations may be below the expectations of public market analysts and investors. In this event, the price of our common stock may fall.

Existing stockholders have significant influence over us.

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As of June 11, 2009, our majority stockholders, including our Chairman, President and Chief Executive Officer Frank Laukien, Director and Senior Vice President Dirk Laukien, Director and Chief Operating Officer of Bruker BioSpin Joerg Laukien and other Laukien family members owned, in the aggregate, approximately 69% of our outstanding common stock. As a result, these stockholders will be able to exercise substantial influence over all matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. This could have the effect of delaying or preventing a change in control of our company and will make some transactions difficult or impossible to accomplish without the support of these stockholders.

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Other companies may have difficulty acquiring us, even if doing so would benefit our stockholders, due to provisions under our corporate charter and bylaws, as well as Delaware law.

Provisions in our certificate of incorporation, as amended, and our bylaws, as well as Delaware law could make it more difficult for other companies to acquire us, even if doing so would benefit our stockholders. Our certificate of incorporation, as amended, and bylaws contain the following provisions, among others, which may inhibit an acquisition of our company by a third party:

staggered board of directors, where stockholders elect only a minority of the board each year;

advance notification procedures for matters to be brought before stockholder meetings;

a limitation on who may call stockholder meetings; and

the ability of our board of directors to issue up to 5,000,000 shares of preferred stock without a stockholder vote.

Future or anticipated sales of our stock may impact its market price.

Sales of substantial numbers of shares of our common stock in the public market, or the perception that significant sales are likely, could adversely affect the market price of our common stock. The number of shares of common stock covered by this prospectus is equal to approximately 43% of the currently outstanding shares of our common stock. We cannot predict the effect that market sales of such a large number of shares would have on the market price of our common stock. Moreover, actual or anticipated downward pressure on the market price of our common stock due to actual or anticipated sales of our common stock could cause some institutions or individuals to engage in short sales of our common stock, which may itself cause the market price of our common stock to decline.

USE OF PROCEEDS

Except as otherwise may be described in the applicable prospectus supplement accompanying this prospectus, we expect to add substantially all of the net proceeds from the sale of the offered primary shares to our general funds. These funds will be used for general corporate purposes, including capital expenditures, repayment of long term and short term debt, working capital and the financing of future acquisitions. We may also invest funds which are not required immediately in short-term marketable securities.

We will not receive any proceeds from the sale of secondary shares of common stock by the selling stockholders.

SELLING STOCKHOLDERS

We are registering for resale certain shares of our common stock. The term "selling stockholder" includes the stockholders listed below and their transferees, pledges, donees or other successors. Each of the selling stockholders may sell some, all or none of his or her shares of common stock that may be offered under this prospectus and is under no obligation to sell any of his or her shares.

Our five largest stockholders are Frank H. Laukien, Dirk D. Laukien, Isolde Laukien-Kleiner, Joerg C. Laukien and Marc M. Laukien. Dirk Laukien, Isolde Laukien-Kleiner and Marc Laukien are the selling stockholders in this offering. Dirk Laukien is a director and Senior Vice President of Bruker and the President of our Bruker Optics subsidiary. Isolde Laukien-Kleiner and Marc Laukien are not actively involved with Bruker, and are not employees, members of management or directors of Bruker. Frank Laukien, our Chairman, President and Chief Executive Officer, and Joerg Laukien, a director and Chief Operating Officer of our Bruker BioSpin subsidiary, are not registering any shares of common stock for resale under this prospectus.

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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 June 11, 2009, the number and percentage of shares of common stock beneficially owned by each selling stockholder and the number of shares being registered 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 consider the following points 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 164,083,675 shares of our common stock outstanding as of June 11, 2009, and the percentage of our common stock outstanding after the offering assumes the sale by us of all 35,000,000 newly issued primary shares of our common stock that may be offered under this prospectus.

The number of shares and percentage of outstanding common stock to be owned by the selling stockholders after completion of this offering assumes that each selling stockholders will sell all of his or her shares of common stock registered for resale under this prospectus.

| 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) 2700 N. Crescent Ridge Drive The Woodlands, Texas 77381 | 22,266,147 | 13.6% | 14,220,000 | 8,046,147 | 4.0% |
| Isolde Laukien-Kleiner Lichtentaler Allee 68 D-76530 Baden-Baden, Germany | 17,160,160 | 10.5% | 9,080,000 | 8,080,160 | 4.1% |
| Marc Laukien 809 Harbour Isles Ct. North Palm Beach, FL 33410 | 14,506,348 | 8.8% | 11,700,000 | 2,806,348 | 1.4% |
| Totals | 53,932,655 | 32.9% | 35,000,000 | 18,932,655 | 9.5% |

(1) Includes 41,293 shares of common stock held by the Dirk D. Laukien Trust for Leah Laukien, dated June 1, 2000

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PLAN OF DISTRIBUTION

Either we or any selling stockholder may sell the common stock in one or more of the following ways from time to time:

through agents to the public or to investors;

to dealers or underwriters for resale to the public or to investors;

directly to investors; or

through a combination of any of these methods of sale.

We will set forth in a prospectus supplement the terms of that particular offering of common stock, including:

the name or names of any agents or underwriters;

the purchase price of the common stock being offered and the net proceeds we or the selling stockholders will receive from the sale;

any over-allotment options under which underwriters may purchase additional shares from us or the selling stockholders;

any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;

the initial public offering price; and

any discounts or concessions allowed or reallocated or paid to dealers.

The selling stockholders also may resell all or a portion of the common stock in open market transactions in reliance upon Rule 144 under the Securities Act.

Agents

We, or any selling stockholder, may designate agents who agree to use their reasonable efforts to solicit purchases of shares of our common stock for the period of their appointment or to sell our common stock on a continuing basis.

Underwriters

If we, or any selling stockholder, use underwriters for a sale of shares of our common stock, the underwriters will acquire the shares for their own account. The underwriters may resell the shares in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the shares will be subject to the conditions set forth in the applicable underwriting agreement. Subject to such conditions, the underwriters will be obligated to purchase all the shares offered if they purchase any of such shares. The underwriters may change from time to time any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers. We may use underwriters with whom we have a material relationship. We will describe the nature of any such relationship in any prospectus supplement naming any such underwriter.

Direct Sales

We, or any selling stockholder, may also sell shares directly to one or more purchasers without using underwriters or agents.

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Stabilization Activities

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of these activities at any time.

Delayed Delivery Contracts

We, or any selling stockholder, may authorize agents and underwriters to solicit offers to purchase securities from us at the public offering price set forth in the applicable prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on the date stated in the prospectus supplement. The contracts would be subject only to those conditions described in the prospectus supplement. The prospectus supplement will describe the commissions payable for solicitation of those contracts.

The place and time of delivery for the securities in respect of which this prospectus is delivered will be set forth in the applicable prospectus supplement.

Other

Underwriters, dealers and agents that participate in the distribution of the securities may be underwriters as defined in the Securities Act, and any discounts or commissions they receive from us and any profit on their resale of the securities may be treated as underwriting discounts and commissions under the Securities Act. We will identify in the applicable prospectus supplement any underwriters, dealers or agents who may be deemed to be underwriters as defined in the Securities Act and will describe their compensation. We or the selling stockholders may have agreements with the underwriters, dealers and agents to indemnify them against specified civil liabilities, including liabilities under the Securities Act. Underwriters, dealers and agents or their affiliates may be customers of, engage in transactions with or perform services for us or the selling stockholders in the ordinary course of business.

We will bear 25%, and the selling stockholders will bear 75%, of all costs, expenses and fees associated with the registration of the shares of common stock. The selling stockholders will bear the external costs, fees and expenses, including all commissions, brokerage fees and discounts, associated with the sale of shares of common stock owned by them.

LEGAL MATTERS

Certain legal matters will be passed on for Bruker by Nixon Peabody LLP, Boston, Massachusetts.

EXPERTS

The consolidated financial statements of Bruker Corporation appearing in our most recent Annual Report (Form 10-K) for the year ended December 31, 2008, and the effectiveness of Bruker Corporation's internal control over financial reporting as of December 31, 2008 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

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12,000,000 SHARES

BRUKER CORPORATION

COMMON STOCK

PROSPECTUS SUPPLEMENT

**Goldman,
Sachs & Co.**

J.P.Morgan

**Deutsche Bank
Securities**

September , 2009
