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Advanced Research Systems, Inc. 7476 Industrial Park Way Macungie, PA 18062 Tel: 610-967-2120 Fax: 610-967-2395 www.arscryo.com Booth: 44	Advanced Research Systems (ARS) provides standard and custom cryogenic solutions for low temperature (4 – 800 K) material characterization. ARS manufactured pneumatic drive closed cycle cryocoolers are ideally suited for R&D applications where low temperature and low vibrations are important. ARS is uniquely qualified to design and manufacture customized cryogenic solutions as we can seamlessly integrate our cryocoolers into the final design. Cryogenic probe stations and cryostats with standard and custom configurations are available for a wide range of applications including beamline science, electrical transport, magnetic properties, micro-spectroscopy, neutron science, optical spectroscopy, X-ray diffraction, and more.
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attocube systems Inc. 2020 Stuart Street Berkeley, CA. 94703 Tel: 510-649-9245 www.attocube.com Booth: 27	attocube is a worldwide supplier for ultra-high precision piezo positioning systems and multi- axes interferometric displacement sensors. The company offers piezodrive technology with extremely rugged yet cost efficient design and attocube's patented and R&D100 award-winning fiber interferometer can be applied to multipurpose displacement measurements, as needed in extreme environmental positioning applications, coordinate measurement machines or micromachining applications.

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	We architect solutions, drawing from a variety of actuator and motor technologies. We know that no two applications are the same, some requiring sub-micron precision , while others face environmental, cost, or lead-time challenges. Regardless, our goal is your success!		
	Products we supply include: Rotary and Linear Stages & Actuators, Servo & Stepper Motors, Angular and Linear Position and Proximity sensors, Frictionless Air Bearing products, and Controller/Drive Modules capable of running any mix of Stepper, AC servo, DC servo, Voice-Coil, Galvanometer, Piezo, and AC-Induction motors. We can also supply Stepping Motors for Vacuum Environments, and Planetary Gearheads as small as 13 mm !		
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www.bellowstech.com Booth: 14	BellowsTech offers standard and custom designs in one piece and high volume production quantities. Our various size options match most existing requirements, ensuring competitive pricing and short lead times. BellowsTech offers assembly services to minimize the amount of effort required to install the bellows.		
	BellowsTech's sister company, Servometer [®] , manufactures precision electroformed components, including bellows, electrical contacts, and couplings. Servometer products can be manufactured as small as 0.5 millimeter in diameter. Electroformed bellows compliment edge welded bellows in size and customization capabilities. Electrical contacts are used in test and circuit board assemblies whereas bellows couplings are commonly used in precision motion control instruments such as servos and micro motors.		
Canberra 800 Research Parkway Meriden, CT 06450 Tel: 203-639-2148 Fax: 203-235-1347 www.canberra.com Booth: 19	Canberra is the leading supplier of innovative and cost-effective nuclear measurement solutions and services used to maintain safety of personnel, assess the health of nuclear facilities and safeguard the public and environment.		
COSMOTEC, Inc. 229 Polaris Avenue Suite 3 Mountain View, CA 94043 Tel: 408-428-9741 Fax: 408-428-9742 www.cosmotec.us Booth: 32	Japan's #1 ceramic-to-metal, hermetic sealing, electrical feedthroughs are now available in America. We work very closely with our clients, scientists, corporations, researchers, government labs, universities, and individuals. Cosmotec respects the accomplishments or achievements of the people involved. This is what we have been doing in Japan for more than 20 years. We will amaze you with our custom manufacturing capabilities. Whether it is a "one quantity" order, Cosmotec will work at its best to not let our clients down. We will "work together" with our clients and find the best solution. Whether they are isolators, ceramic feedthroughs, coaxial and multi- pin connectors, coaxial connectors, multi-pin connectors, double-ended connectors, floating coaxial connectors, multi-pin connectors, ceramic chambers, beam positioning monitors (BPM), isolator flanges, ceramic isolator flanges, sapphire windows, single-crystal sapphire material, ceramic-to-metal bonding technology, we will provide solutions.		
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Ebara Technologies Inc.

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FMB Oxford

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Hirox-USA, Inc.

100 Commerce Way Hackensack, NJ 07601 Tel: 201-342-2600 Fax: 201-342-7322 www.hirox-usa.com Booth: 50

Hiwin Corp.

1400 Madeline Lane Elgin, IL 60124 Tel: 847-827-2270 Fax: 847-827-2291 www.hiwin.com Booth: 7

HORIBA Scientific

3880 Park Avenue Edison, NJ 08820 Tel: 732-494-8660 Fax: 732-549-5125 www.horiba.com/scientific Booth: 46 EBARA is a global innovator/local provider of vacuum pumps and advanced exhaust management solutions for semiconductor, photovoltaic, thin films and R&D: Dry Vacuum Pumps, Turbomolecular Pumps, Point-of-Use Abatement, Field Services, Parts Cleaning Services.

FMB Oxford is a well-established leader in the supply of beamlines and components specialising in the design, assembly, test, installation and commissioning of the high value systems. With over 20 years' experience, FMB has built an extensive product range and continues to expand and develop this range to provide new solutions capable of supporting the increasing demands of the science.

In 2015 the lease on Unit 4 was taken over, providing an additional space of 460m2, This allows us to rebuild and extended our cleanroom to approximately 110m2, increasing the usable production area to around 85m2. At the same time approximately 36m2 will be upgraded to ISO6 standard, where the existing ISO5 laminar flow cabinet will be located. The new 20m2 equipment clean down area will have additional headroom at 5.5m to allow for the installation of a gantry crane that will allow vessel lids to be fitted inside the cleanroom.

The company has the design capability and manufacturing capacity to handle any beamline needs, whether these are for the smallest component or for multiple beamlines.

Continual investment in new production, test and design facilities ensures that FMB Oxford remains at the forefront of beamline system supply.

Please take a little time to look at our www.fmb-oxford.com website to view our advanced and expanding range of products. If you can't find what you are looking for, do not hesitate to contact us at Sales@fmb-oxford.com.

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Hiwin Corp. manufactures an extensive line of both linear motion components and complete solutions. With a goal of supplying superior quality at the most competitive prices, the company offers a variety of precision ground and rolled ballscrews, linear guideways, electric actuators, ballscrew-driven stages, and linear motors, with many fully integrated, value-added features.

HORIBA Scientific, world leading manufacturer of Raman spectroscopy systems, offers physical and chemical imaging on a single platform. Our Raman technology seamlessly integrates with outstanding scanning probe microscopy (SPM). This unique platform integrates Atomic Force Microscopy (AFM), near-field optical techniques (SNOM, NSOM), Scanning Tunneling Microscopy (STM), tuning fork techniques and confocal optical spectroscopy (Raman and fluorescence imaging) in one versatile instrument, for fast simultaneous co-localized measurements and Tip-Enhanced Raman Spectroscopy (TERS) for the chemical specificity of Raman spectroscopy with imaging at spatial resolution typically down to 10nm.

HORIBA Scientific and AIST-NT now offer a solution that addresses all the instrumentation concerns and brings TERS as an analytical method to a completely new level. HORIBA Scientific and AIST-NT pioneered the demonstration of TERS in out –of-the –lab conditions for the second year at number of conferences worldwide. The XploRA Nano platform in the upright and side configuration, combination with AIST-NT's SmartSPM and HORIBA's XploRA spectrometer, offers a very compact (complete set up stands on 900 x 760 x 55 mm optical table), fully integrated and automated solution.

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Inprentus 60 Hazelwood Drive, Suite 107 Champaign, IL 61820 Tel: 217-239-9862 http://www.inprentus.com/ Booth: 59	 Inprentus provides custom mechanically ruled, high-efficiency variable line spacing diffraction gratings for EUV and soft x-ray use. These gratings are manufactured using a new process developed at the University of Illinois at Urbana-Champaign. We can currently manufacture gratings with the following specifications: Up to 20,000 resolving power; Blaze angles between 1 degree and 5 degrees; 300-2500 lines per mm; Size 220mm long x 50mm wide Inprentus (www.inprentus.com) was founded in 2012 by Prof. Peter Abbamonte - a physics professor at the University of Illinois at Urbana-Champaign, who has developed or co-developed many facilities at x-ray light sources, most recently the IEX-CDT soft x-ray project at the Advanced Photon Source.
Instrument Design Technology Ltd. Unit 2, Turnstone Business Park Mulberry Avenue Widnes WA8 0WN United Kingdom Tel: +44-1516014111 Fax: +44-1516014110 www.idtnet.co.uk Booth: 29	 Instrument Design Technology are an established leading supplier of complete beamlines, systems & components to the global synchrotron community. We consist of a team of highly trained scientists, engineers and technicians with many years' experience at synchrotron facilities around the world, creating a unique combination of skills and expertise in the synchrotron radiation environment. Our preferred mode of working is in close collaboration with the scientists and engineers who will be the users of the beamlines and components we supply. Thanks to the range of experience within the IDT team we are able to communicate effectively with both the engineers and the researchers whom depend on our products to obtain the optimum results in their experiments. IDT's customer philosophy is not just about the cutting edge quality and design of our products, it's about the integrity of the business as a whole, the services we offer and the fact that we stand by our products and values. We have wide range of products from air bearing monochromators to large, medium & small KB mirror systems plus experimental tables and many other high quality instruments.
KOHZU Precision Co., Ltd. 2-6-15 Kurigi Asao-ku Kawasaki-shi, Kanagawa 215-8521 Japan Tel: +81-449812131 Fax: +81-449812181 www.kohzuprecision.com Booth: 56	Instruments for x-ray experiments, double-crystal monochromator, vacuum components, vacuum stages, vacuum slit, goniometers.
Kurt J. Lesker Company 1925 Route 51 Jefferson Hills, PA 15025 Tel: 412-387-9007 Fax: 412-384-7563 www.lesker.com Booth: 20	Manufacturer/distributor of standard and custom high-vacuum and UHV chambers and sub- assemblies, standard and custom vacuum hardware, feedthroughs, and valves, and vacuum pumps of all types. Manufacturer of thin-film deposition systems for sputtering, electron beam, thermal evaporation, and atomic layer deposition. Exclusive North American representative for UHV Design Ltd. motion devices.

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Metal-Flex Welded Bellows, Inc. 149 Lakemont Road Newport, VT 05855 Tel: 802-334-5550 Fax: 802-334-5318 http://metalflexbellows.com/ Booth: 51	Metal-Flex®, in existence since 1981, is known throughout the world as a leader in welded bellows technology. Our products are used in semiconductor, aerospace/aircraft, Ultra-High Vacuum (UHV), and many other research, industrial and commercial applications. Metal-Flex® performs design, manufacturing, and testing activities in house, which allows us to react quickly and precisely to your changing needs. We welcome the opportunity to assist you with your most demanding requirements and look forward to providing you with a solution that meets and exceeds your needs.
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Midwest Vacuum, Inc. 15 Spinning Wheel Road Suite 120 Hinsdale, IL 60521 Tel: 630-323-5399 Fax: 630-323-2142 www.midwestvacuum.com Booth: 2	Midwest Vacuum, Inc. is a manufacturer representative company established in 1983. We serve the vacuum to UHV user community with components, instrumentation, systems, pumps and valves. We represent some of the finest companies in the vacuum user market.

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OMS Motion, Pro-Dex

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16 Albert Street Auburn, MA 01501 Tel: 508-832-3456 Fax: 508-832-0506 www.pi-usa.us Booth: 11 Molmex Scientific Inc is the North American distributor for Dectris hybrid pixel detectors, JJX-ray beamline solutions, and SAXSLAB Small Angle X-ray Scattering (SAXS) for the laboratory and SR end stations, with multiple and moving detectors in vacuum.

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OMS Motion, located in Beaverton, Oregon, is a division of Pro-Dex, Inc. a publicly traded company in Irvine, California, and has been successfully producing motion controllers for more than 30 years. OMS Motion was founded as Oregon Micro Systems (OMS) and evolved from patented motion control technology that provide superior advantages in the industry. OMS built a strong reputation in the market for reliable and quality motion control products backed by superior customer service and technical support. These motion controllers can control 10 axes of motion on a single controller for servo and/or stepper motor control. Applications of these controllers include semiconductor and medical equipment, life sciences and factory automation markets, as well as research facilities around the world. In addition to creating multi-axis motion controllers, OMS offers motors, drives and accessories that are often tailor-made to support specific applications.

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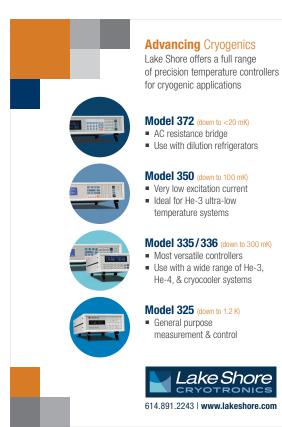
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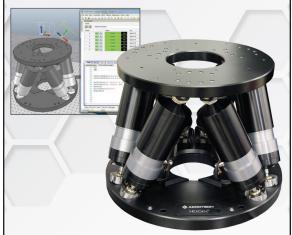


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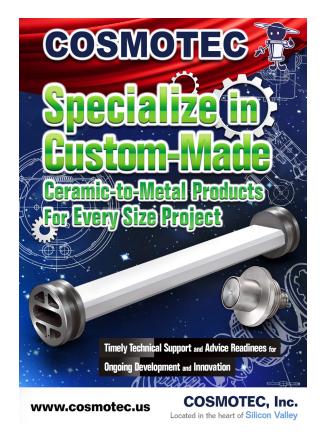


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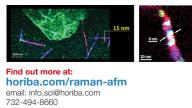
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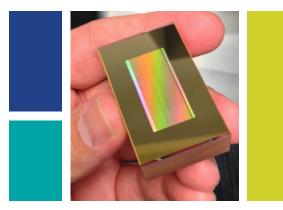
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