



Networking Reception on Wednesday, April 24, 7:30–9:00 pm. This new event is for attendees who want to showcase their research in an interactive and fun way. More information is available on the 2019 MRS Spring Meeting website.

The **MRS/Cambridge University Press Publications Booth 100** will be featured in the Exhibit Hall. Stop by to learn about the MRS Publications Portfolio and receive 20% off all book purchases.

The popular **Science as Art** competition is open to all registered Meeting attendees. Multiple first-place and second-place awards of \$400 and \$200, respectively, will be presented at the Meeting. Guidelines are listed on the 2019 MRS Spring Meeting website.

The deadline to preregister for the 2019 MRS Spring Meeting is April 5 (5:00 pm ET). International travelers

2019 MRS SPRING MEETING REGISTRATION RATES		
	PREREGISTRATION before 5:00 pm (ET) April 5, 2019	ON-SITE REGISTRATION after 5:00 pm (ET) April 5, 2019
Meeting Registration	\$715	\$845
Meeting Registration with MRS Member Discount	\$565	\$705
Student Registration (Proof of student status required.)	\$160	\$200
Student Registration with MRS Member Discount	\$130	\$160
Retired	\$190	\$215
Unemployed	\$160	\$200

2019 MRS Spring Meeting registrations include MRS Membership from July 1, 2019 to June 30, 2020.

are reminded to begin the visa process early. For additional information on the Spring Meeting, contact MRS Member Services, e-mail info@mrs.org and tel. 724-779-3003.

The MRS website can be accessed for updated information on confirmed talks and details on special events, information on obtaining a visa, and preregistration at mrs.org/spring2019.



Van Swygenhoven-Moens to present Kavli lecture during 2019 MRS Spring Meeting plenary session

Helena Van Swygenhoven-Moens will present The Fred Kavli Distinguished Lectureship in Materials Science on Tuesday, April 23. She is a professor at the École Polytechnique Fédérale de Lausanne (EPFL) in the Materials Science Institute; she also leads the Neutrons and X-rays for Mechanics of Materials Laboratory and heads the Photons for Engineering and Manufacturing Research Group at the Paul Scherrer Institute in Switzerland.

Helena's presentation is titled, "Synchrotron Light to Investigate Materials *In Operando*." Synchrotron radiation beams are now sufficiently bright and detectors are sufficiently fast that scattering and x-ray absorption data can be followed in real time for a material under action. With the use of synchrotron radiation, high-resolution computer-aided

tomographic microscopy is possible. One can now look at the formation of pores, microcracks, or gas bubbles during the interaction of a material with an external environment.

Helena studied physics at the Vrije Universiteit Brussels and received her PhD degree in physics from the Central Jury in Belgium. After a professional break for motherhood, she continued her career with a Marie-Heim Vögtlin Grant from the Swiss National Science Foundation. Helena is a Fellow of the Materials Research Society, elected member of the Royal Academy of Science of Belgium, and an advanced grant holder from the European Research Council. For many years, she chaired the International Board of the International Committee of Strength of Materials, was a member of the Scientific Advisory Committee of

the European Spallation Source, was on the peer review panel of *Diamond*, and was on the beamline review panels of ESRF. Helena also serves on the engineering expert panel of the National Science Foundation Flanders and on expert panels of the ERC.

The core of her work is the development and use of *in situ* experiments at synchrotron and neutron facilities, with the aim to follow a material's microstructure *in operando* and to provide synergies between experiments and computational modeling. Helena's research focuses on the link between synthesis and microstructure, including laser-based additive manufacturing methods and the connection between microstructure and mechanical behavior of a variety of materials, ranging from nanostructured materials for watch components, superelastic alloys for medical applications, and advanced steels and lightweight alloys for structural applications. Through her ERC advanced grant (MULTIAX), Helena addresses non-proportional multi-axial straining covering the gap between our current knowledge of mechanical behavior derived from uniaxial deformation tests and the engineering reality of applications and processing routes.



2019 MRS® SPRING MEETING EXHIBITORS

mrs.org/spring-2019-exhibit

Phoenix Convention Center, North Building, 300 Level, Exhibition Halls C–E
Tuesday, April 23, 2:00 pm – 7:00 pm • Wednesday, April 24, 11:00 am – 7:00 pm

Admiral Instruments Booth 832
www.admiralinstruments.com
 Potentiostats/Galvanostats; EIS Measurements; Photo-Electrochemistry

AdValue Technology, LLC Booth 603
www.advaluetech.com
 Alumina, Quartz and Sapphire Products

AIP Publishing Booth 804
publishing.aip.org
 Physics Journals; Conference Proceedings; Digital Archive

AJA International, Inc. Booth 500
www.ajaint.com
 Sputtering/E-Beam/Ion Milling; Sputtering Sources; Target and Evaporation Materials

Allwin21 Corp. Booth 229
www.allwin21.com
 Rapid Thermal Processing; Plasma Asher Descum Etcher; Sputtering Deposition System

American Physical Society Booth 705
journals.aps.org
 Journals

ANCORP Booth 404
www.ancorp.com
 Vacuum Flanges and Fittings; Vacuum Valves; Vacuum Chambers

Anton Paar Booth 700
www.anton-paar.com
 Atomic Force Microscope; Gas Sorption; Pycnometers

Arizona State University Booth 430
www.asu.edu
 Educate Graduates; Materials Research; Innovation

Barnett Technical Services Booth 330
www.barnett-technical.com
 Micromanipulators; Cathodoluminescence; AFM; Raman; Polariscope

Bio-Logic USA Booth 326
www.bio-logic.net
 Potentiostats; Impedance Analyzers; Battery Cyclers

Blue Wave Semiconductors, Inc. Booth 400
www.bluewavesemi.com
 Electron Beam Evaporators; Pulsed Laser Deposition; Diamond CVD-HFCVD

Bruker Corporation Booth 629
www.bruker.com
 Analytical Equipment; SEM Detectors

Cambridge University Press | Materials Research Society Booth 100
www.cambridge.org
 Books; Journals

Cell Press Booth 800
www.cell.com
 Journals; Periodicals

CrystalMaker Software Ltd. Booth 405
www.crystallmaker.com
 CrystalMaker 10.4; CrystalDiffract 6; SingleCrystal 3

Delcom Instruments, Inc. Booth 228
www.delcominst.com
 Non-contact Sheet Resistance Meters

DENSsolutions Booth 403
www.denssolutions.com
In Situ TEM Liquid Biasing/Heating; *In Situ* TEM Gas and Heating; *In Situ* TEM Heating and Biasing

Ecopia Corp. Booth 303
www.fourpointprobes.com
 Hall Effect Measurement Systems; Rapid Thermal Processing Systems; Thermal Evaporation and Sputtering

Electron Microscopy Sciences Booth 502
www.emsdiasum.com
 Material Science Coater; Lapping and Polishing Equipment; Wafer Cleaving Systems

Gatan Booth 401
www.gatan.com
 EM Specimen Preparation Instruments; Direct Detection Cameras; Analytical TEM Instruments and Software

Goodfellow Corporation Booth 627
www.goodfellowusa.com
 Metals; Ceramics; Polymers

HeatWave Labs, Inc. Booth 305
www.cathode.com
 Substrate Heaters; Cathodes/Electron Guns; Ion Sources

Hitachi High Technologies America, Inc. Booth 201
www.hitachi-hightech.com/us
 Electron Microscopes; Atomic Force Microscopes; Thermal Analysis

Hummingbird Scientific Booth 202
www.hummingbirdscientific.com
 TEM Specimen Holders; TEM/SEM/X-Ray; *In situ* TEM

ibss Group, Inc. Booth 827
www.ibssgroup.com
In Situ Plasma Cleaner; *Ex Situ* Plasma Cleaner

INTEC Booth 730
www.intec.com
 Microscopy and Spectroscopy Stages; Electrical Probe Systems; Liquid Crystal Measurement Systems

International Centre for Diffraction Data (ICDD) Booth 302
www.icdd.com
 Materials Characterization Databases; Education; Powder Diffraction Journal

IOP Publishing Booth 802
www.ioppublishing.org
 Journals; Magazines; ebooks

Janis Research Company, LLC Booth 301
www.janis.com
 Cryogenics; Probe Stations; Cryostats

JASCO Booth 602
www.jascoinc.com
 Raman; FTIR Microscopy

JFE Shoji Electronics Corporation Booth 231
www.jfe-shoji-ele.co.jp
 Zero CTE Metal; Low CTE, High TC Heat Sink Material; Minimal Fab

KLA Corporation Booth 704
www.kla.com
 Nanoindenters

KP Technology USA Inc. Booth 103

www.kelvinprobe.com
Ambient-pressure Photoemission System;
Kelvin Probe; Work Function Measurement

Kurt J. Lesker Company Booth 200

www.lesker.com
Pure Targets and Materials; Vacuum
Components; Thin Film Deposition Systems

Lake Shore Cryotronics, Inc. Booth 327

www.lakeshore.com
Cryogenic Probe Stations; Hall Effect
Measurement Systems; Vibrating Sample
Magnetometers

Lyncée Tec SA Booth 826

www.lynceetec.com
Digital Holography Microscope;
4D Profilometry; MEMS Analyzer

M. Braun, Inc. Booth 605

www.mbraunusa.com
Inert Gloveboxes; Vacuum Deposition Tools;
Process Equipment

Malvern Panalytical Booth 601

www.malvernpanalytical.com
Aeris Benchtop XRD; Zetasizer Ultra;
Empyrean

MANTIS-SIGMA Booth 227

www.mantis-sigma.com
UHV SPM; XPS; PVD Systems and
Components

McCrone Group Booth 731

www.mccrone.com
Linkam Microscope Stages for Materials
Analysis; X-Ray Probe Stages; Nikon
Microscopes

MilliporeSigma Booth 426

www.sigmaaldrich.com/materials-science
Nanomaterials; Energy and Electronics;
Biomaterials

MSE Supplies LLC Booth 829

www.msesupplies.com
Battery Materials; Thin Film Substrates and
Targets; Processing Equipment

MTI Corporation Booth 501

www.mtixtl.com
High Throughput XRF; Rotation Powder ALD;
Roll-to-Roll Electrospinning

National Academies of Sciences, Engineering, and Medicine Booth 232

www.nas.edu/fellowshipsoffice
Fellowships; Research Awards; Graduate
Funding

neaspec GmbH Booth 233

www.neaspec.com
neaSNOM; nano-FTIR; Cryo-microscopy

Newport Corporation Booth 703

www.newport.com
Light Sources; Spectrometers

Nor-Cal Products, Inc., A Pfeiffer Vacuum Company Booth 304

www.n-c.com
Custom Vacuum Chambers; Vacuum
Components; Vacuum Valves and Traps

Novocontrol America, Inc. Booth 728

www.novocontrol.com
Dielectric Spectrometers; Impedance
Spectrometers; Electrochemistry Analyzers

NT-MDT America, Inc. Booth 226

www.ntmdt.com
SPM/AFM/STM; Raman TERS; Spectroscopy

Park Systems Inc. Booth 332

www.parksystems.com
Atomic Force Microscopes

PicoQuant Photonics North America Inc. Booth 833

www.picoquant-usa.com
Laser Sources; Photon Counting Electronics

Plasmaterials, Inc. Booth 701

www.plasmaterials.com
Sputtering Targets; Evaporation Materials;
Backing Plates

Protochips, Inc. Booth 726

www.protochips.com
In situ TEM Holders

Quantum Design, Inc. Booth 727

www.qdusa.com
Magneto-Optics; Correlative Microscopy;
Lithography

R.D. Mathis Company Booth 503

www.rdmathis.com
Evaporation Sources; Evaporation Materials;
Power Supplies; Gas Purifiers

Rigaku Booth 205

www.rigaku.com
MiniFlex

Scienta Omicron, Inc. Booth 204

www.scientaomicron.com
MBE; ARPES; Scanning Probe

Seki Diamond Systems Booth 402

www.sekidiamond.com
Microwave Plasma, Hot Filament and Plasma
CVD Systems

SPECS-TII, Inc. Booth 702

www.specs.com
XPS/UPS Equipment; Customized Systems;
SPM

SPI Supplies, a Division of Structure Probe, Inc. Booth 300

www.2spi.com
Plasma Systems; Coating Systems;
Substrates

Springer Nature Booth 801

www.springernature.com
Books; Journals; e-Books

STAIB Instruments, Inc. Booth 604

www.staibinstruments.com
RHEED; Auger; Surface Analysis

Ted Pella, Inc. Booth 101

www.tedpella.com
Microscopy Supplies; Sample Preparation
Equipment and Supplies; Dimpler; Vacuum
Coaters

UC Components Inc. Booth 729

www.uccomponents.com
Vacuum Hardware

Vigor Tech USA, LLC Booth 733

www.vigor-glovebox.com
Gloveboxes; Purification Systems;
Clean Room Equipment

Wafer World Inc. Booth 732

www.waferworld.com
Silicon Wafers; Germanium Wafers;
GaAs Wafers

J.A. Woollam Company, Inc. Booth 600

www.jawoollam.com
Ellipsometers; Thin Film Characterization;
Spectroscopic Ellipsometers