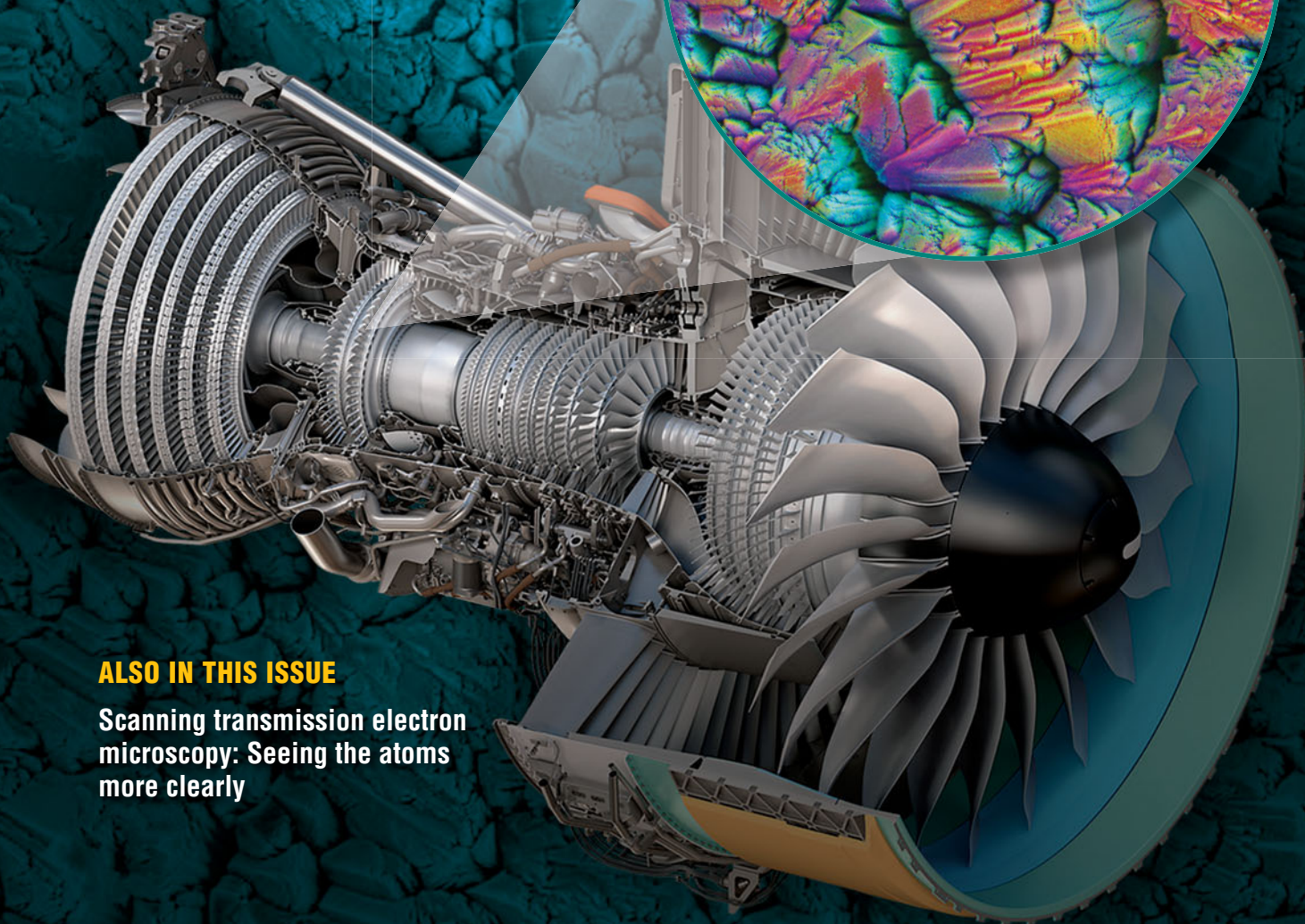
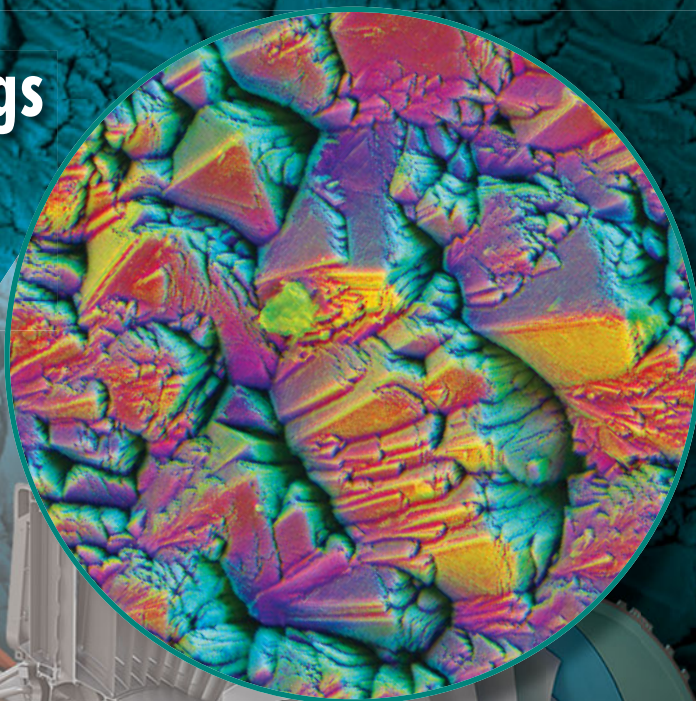


October 2012 Vol. 37 No. 10
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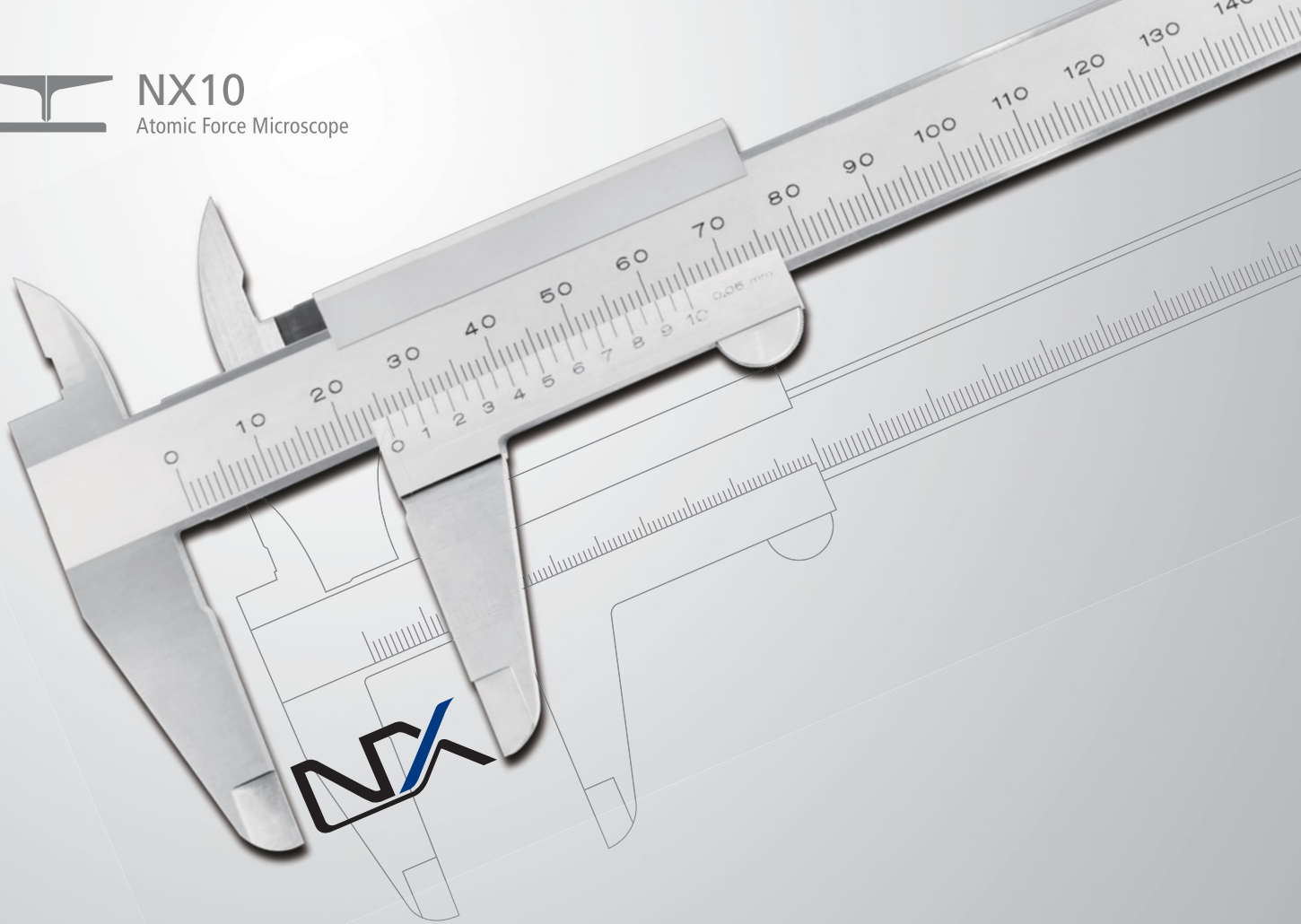
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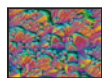
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CONTENTS

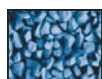
THERMAL-BARRIER COATINGS FOR MORE EFFICIENT GAS-TURBINE ENGINES



891 **Thermal-barrier coatings for more efficient gas-turbine engines**

David R. Clarke, Matthias Oechsner, and Nitin P. Padture, Guest Editors

899 **Meet Our Authors**



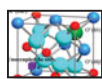
903 **Processing science of advanced thermal-barrier systems**

Sanjay Sampath, Uwe Schulz, Maria Ophelia Jarligo, and Seiji Kuroda



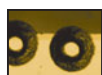
911 **Testing and evaluation of thermal-barrier coatings**

Robert Vaßen, Yutaka Kagawa, Ramesh Subramanian, Paul Zombo, and Dongming Zhu



917 **Low thermal conductivity oxides**

Wei Pan, Simon R. Phillpot, Chunlei Wan, Aleksandr Chernatynskiy, and Zhixue Qu



923 **Multifunctional coating interlayers for thermal-barrier systems**

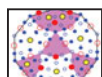
T.M. Pollock, D.M. Lipkin, and K.J. Hemker



932 **Environmental degradation of thermal-barrier coatings by molten deposits**

Carlos G. Levi, John W. Hutchinson, Marie-Hélène Vidal-Sétif, and Curtis A. Johnson

TECHNICAL FEATURE



943 **Scanning transmission electron microscopy: Seeing the atoms more clearly**

2012 MRS Innovation in Materials Characterization Award

Stephen J. Pennycook

DEPARTMENTS



OPINION

879 **Letter from the President**

The Materials Research Society Foundation to benefit wide range of initiatives

Bruce M. Clemens

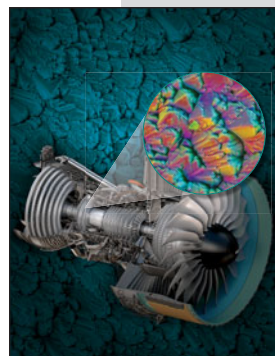


NEWS & ANALYSIS

881 **Research/Researchers**

- **“Spin bag” model proposed for room-temperature ferromagnetism in $\text{Sr}_3\text{YCo}_4\text{O}_{10+\delta}$**
Steven Spurgeon
- **Photovoltaic device made only of nanocarbon**
Tim Palucka
- **Vanadium oxide bronze nanowires show unprecedented metal–insulator transition**
- **Cobalt-based nanomaterial catalyzes water splitting**
Steven Trohalaki
- **Li-ion batteries fabricated by spray painting**
Steven Trohalaki
- **“Needle beam” propagates without diffraction**
- **Slot-die coating may enable continuous printing of light-emitting electrochemical cells**
Tobias Lockwood
- **Sliding metals show fluidlike behavior at the mesoscale**

ON THE COVER



Thermal-barrier coatings for more efficient gas-turbine engines. This issue of *MRS Bulletin* focuses on thermal-barrier coatings used in gas-turbine engines on metallic parts in the hottest regions, enabling the engines to operate at higher gas temperatures than their predecessors, thereby improving efficiency and power. The cover shows a cutaway section of a GP7200 jet engine manufactured by Engine Alliance, a joint venture of General Electric and Pratt & Whitney. (Image courtesy of Engine Alliance.) The inset (and background) is a scanning electron micrograph (orientation-dependent color) showing the top surface of a thermal-barrier coating deposited by the electron-beam physical vapor process. (Micrograph courtesy of James Weaver, School of Engineering and Applied Sciences, Harvard University.) See the technical theme that begins on page 891.

886 **Science Policy**

- **Materials to play vital role in US-India solar technology consortium**
Kendra Redmond
- **German National Academy of Sciences Leopoldina issues critical statement on bioenergy**



953 **SOCIETY NEWS**

- **Preview: 2012 Materials Research Society Fall Meeting & Exhibit**
- **Stuart S.P. Parkin to receive 2012 Von Hippel Award for spintronics**
- **Robert Sinclair selected for 2012 David Turnbull Lectureship**
- **Jennifer A. Lewis named 2012 MRS Medalist for direct-write assembly of soft functional materials**
- **Miquel B. Salmeron named 2012 MRS Medalist for surface science studies**
- **John P. Perdew receives 2012 Materials Theory Award for density functional theory**
- **Dan Shechtman to give plenary address on quasicrystals at 2012 MRS Fall Meeting**



FEATURES

888 **Beyond the Lab**

Drexel hosts Philly Materials Day
Steven Spurgeon

963 **Materials History**

50 years ago: How Holonyak won the race to invent visible LEDs
Tim Palucka

967 **Books**

Reliability in scientific research: Improving the dependability of measurements, calculations, equipment, and software
I.R. Walker
Reviewed by Melissa Eblen-Zayas

976 **Image Gallery**

Look Again



968 **CAREER CENTRAL**

ADVERTISERS IN THIS ISSUE

Page No.

American Elements	Outside back cover
Asylum Research	Inside back cover
GlobalFoundries	942
High Voltage Engineering	Inside front cover
The Kavli Foundation	877
Lake Shore Cryotronics, Inc.	941
MMR Technologies, Inc.	951
National Electrostatics Corp.	898
Park Systems, Inc.	873
Strem Chemicals, Inc.	922
TA Instruments	878
ULVAC Technologies, Inc.	902



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