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MRS Bulletin

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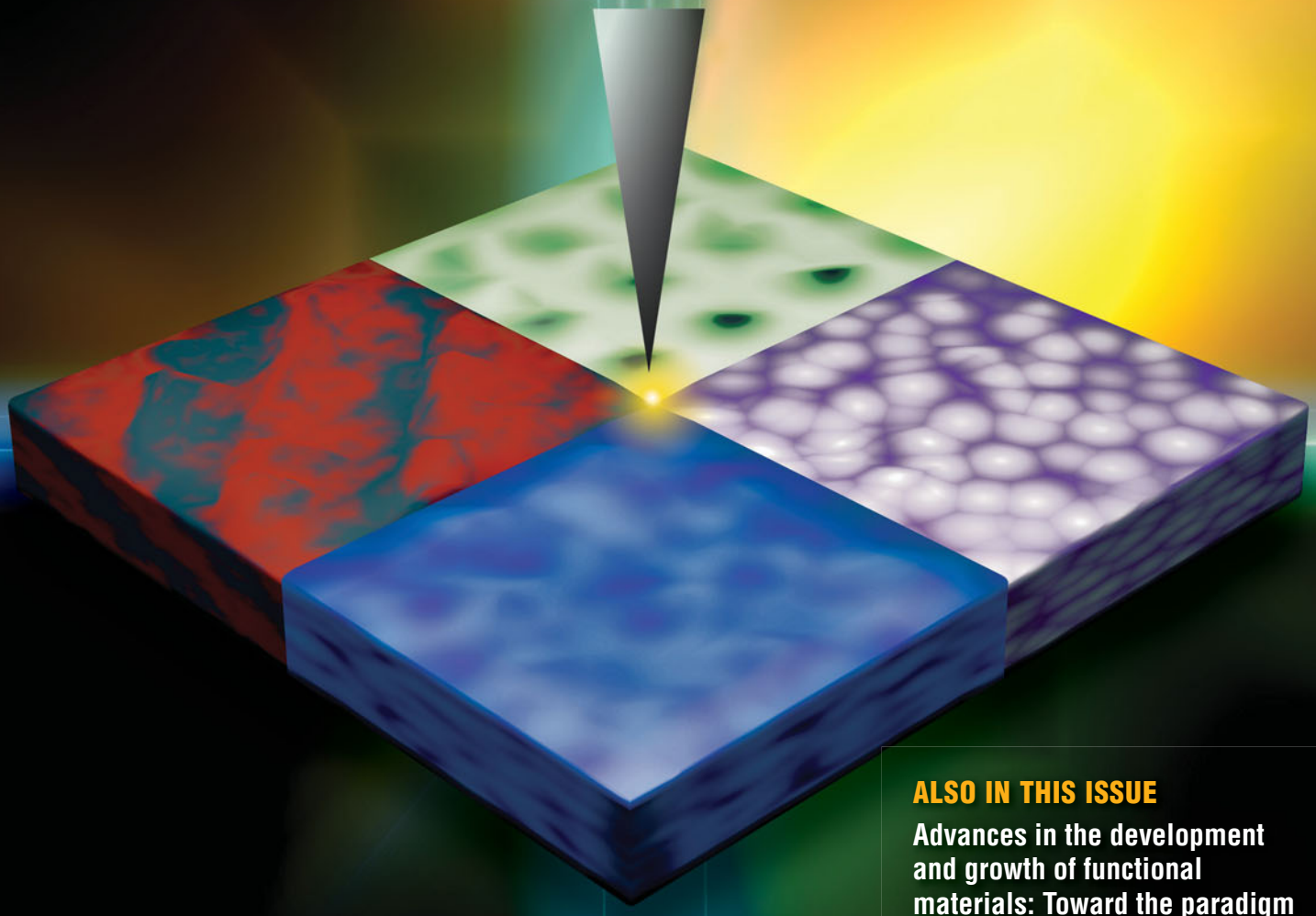
Scanning probes for new energy materials: Probing local structure and function



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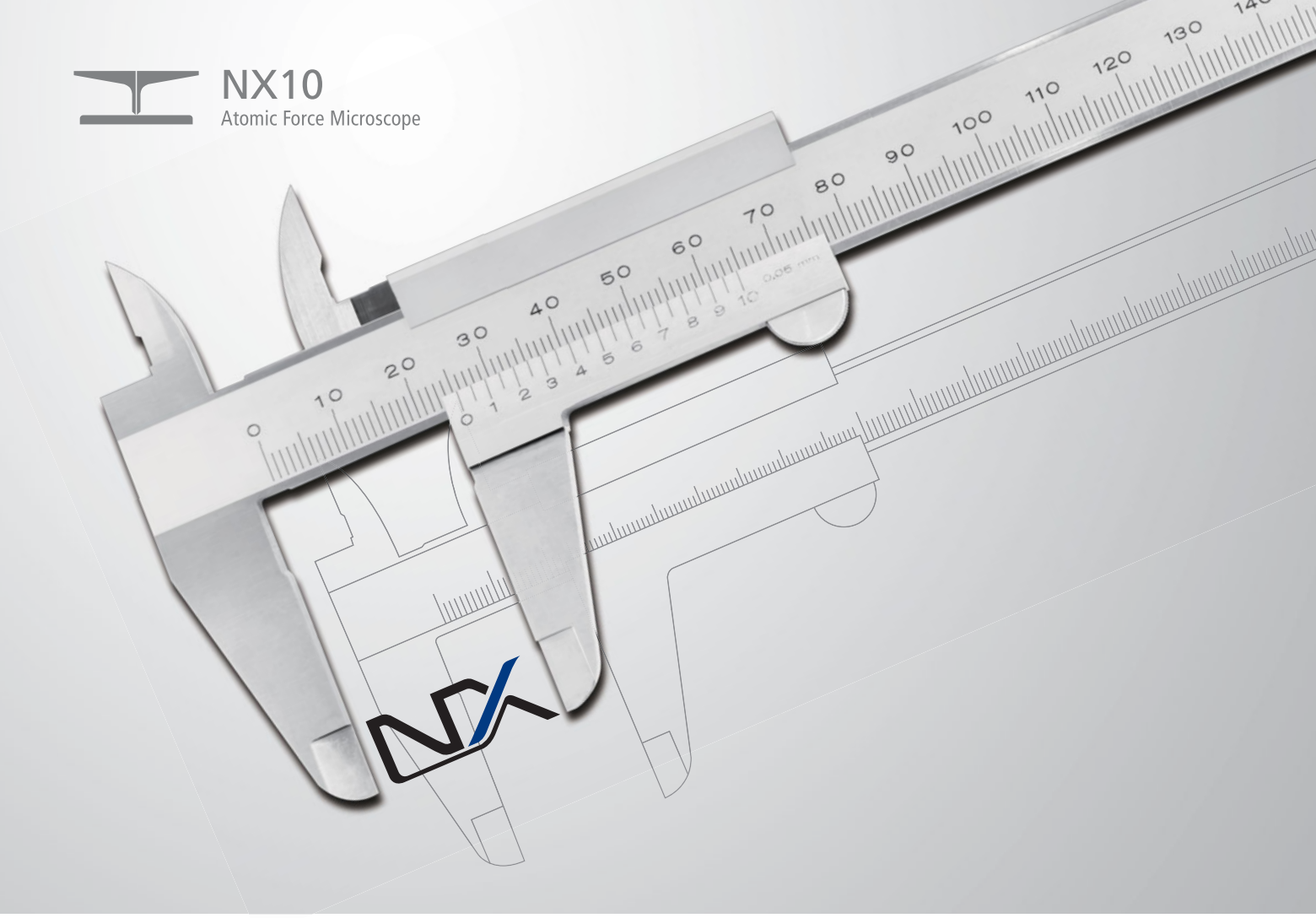

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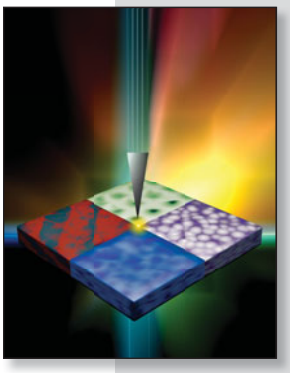

ON THE COVER

Scanning probes for new energy materials: Probing local structure and function. The first generation of scanning probe microscopy techniques are considered essential tools in materials characterization and are used routinely in basic and applied research and development, as discussed in the articles in this issue with a focus on energy-related materials. The cover shows four surface structures representative of property variations in energy materials, with each schematically illustrating aspects of a class of materials discussed in this issue. Top: periodic array of quantum dots or plasmonic particles, right: ionic conductor with grain boundaries, bottom: typical structure of polymer blends as in solar cells, left: ferroelectric domains. Image courtesy of Stephen Nonnenmann. See the technical theme that begins on page 633.

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The Materials Research Society (MRS), a not-for-profit scientific association founded in 1973, promotes interdisciplinary goal-oriented basic research on materials of technological importance. Membership in the Society includes almost 16,000 scientists, engineers, and research managers from industrial, government, and university research laboratories in the United States and over 80 countries.

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