

MRS Bulletin

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Advances in *in situ* nanomechanical testing

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3D printed biomaterials
and biomedical devices

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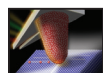
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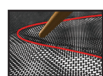
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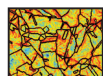
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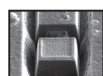
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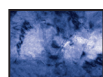
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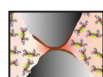
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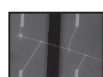
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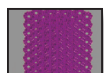


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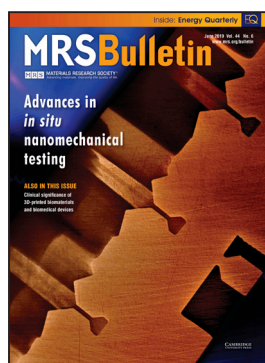


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ON THE COVER

Advances in *In Situ* Nanomechanical Testing. *In situ* nanomechanical testing can provide critical insights into the fundamental processes that lead to deformation phenomena in materials. Simultaneous observations of deformation phenomena and measurements of mechanical response *in situ* allow for nanomechanical testing information to be connected to models to elucidate the subtlety and complexity of how materials respond to stress and strain. The image on the cover shows a low magnification transmission electron microscope image of focused ion beam-milled copper nano-tensile samples. A diamond gripper was also milled with the focused ion beam to perform uniaxial tensile tests of the electron-transparent samples. Image courtesy of D. Kiener and A.M. Minor. See the technical theme that begins on p. 438.



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The Society's interdisciplinary approach differs from that of single-discipline professional societies because it promotes information exchange across many scientific and technical fields touching materials development. MRS conducts three major international annual meetings and also sponsors numerous single-topic scientific meetings. The Society recognizes professional and technical excellence and fosters technical interaction through University Chapters. In the international arena, MRS implements bilateral projects with partner organizations to benefit the worldwide materials community. The Materials Research Society Foundation helps the Society advance its mission by supporting various projects and initiatives.

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