

Abstract Submitted  
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**Helium ion microscopy and its application to organic materials**

STEVEN HUDSON, ANDRAS VLADAR, BIN MING, NIST, Gaithersburg, MD 20899 — Helium ion microscopy (HeIM) is a new scanning probe microscopy that uses a  $\text{He}^+$  ion beam. This microscope has improved resolution and depth of field in comparison to SEM, as demonstrated through imaging of metal particles. Organic materials, including patterned polyelectrolyte multilayers and organic semiconductor crystals, have also been imaged. The surface sensitivity, image contrast and qualitative secondary electron yield have been evaluated, in an effort to understand beam/specimen interactions and compare them with electron beam/sample interactions.

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