JMR EARLY CAREER SCHOLARS IN MATERIALS SCIENCE 2018

This special issue of the Journal of Materials Research contains articles that were accepted in response to a call for manuscripts.

Introduction

Guest Editors:

Gary L. Messing
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We are pleased to publish the third annual Early Career Scholars in Materials Science Special Issue of the *Journal of Materials Research.* The issue highlights young scientists carrying out research in the field of materials. By publishing these papers together, we spotlight this group of early career scholars at a particularly important stage in their careers. Their photos and biographical details are included to personalize the authors and to help other scientists meet them and thus facilitate networking for them. To further extend that exposure, we have published all of these papers on an Open Access basis. It is impressive to see the degree of international representation of the scholars and the efforts taken by this group to carry out state of the art research on a global scale.

The topical coverage represented by the papers in this issue parallel the diversity of subjects represented by the Materials Research Society. Central to all of the papers is a perspective on processing-nanostructure-property relations – a common theme in materials research. The papers cover the synthesis, fabrication, characterization and properties of nanoporous materials produced by additive manufacturing, polymer templating of nanoporous structures, plus synthesis of nanoporous molecular sieves for gas separation membranes. Energy-related topics include an investigation of the anisotropic properties of vapor synthesized Na-β''Al_2O_3, and metallic compounds in lithium-sulfur batteries. New advances in microstructure stabilization are reported for production of nanocrystalline tungsten. Finally, the growing area of biomaterials coverage in *JMR* is represented by a review article on the hemotoxicity of graphene nanomaterials.

We are enthusiastic to see how the careers of this group of young professionals (5 faculty members) advance in the coming years. We expect they will continue to grow and prosper in the field of materials and assume future leadership roles. Feel free to contact the editors if you have any questions about publishing a paper in a future Early Career Scholars in Materials Science Annual Issue and enjoy reading these outstanding papers.

ON THE COVER:

Top center: Image courtesy of Lawrence Berkeley National Laboratory

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