

MRS

Advances

Processing and Manufacturing

<https://doi.org/10.1557/adv.2017.312> Published online by Cambridge University Press

MRS

MATERIALS
RESEARCH
SOCIETY®

CAMBRIDGE
UNIVERSITY PRESS

MRS Advances: Processing and Manufacturing

Associate Editor:

Asa Barber, *University of Portsmouth*

Principal Editors:

Esperidiana Moura, *USP-IPEN*

Akira Mizuno, *Toyohashi University of Technology*

Rainer Hebert, *University of Connecticut*

Meyya Meyyappan, *NASA*

Mark Poliks, *Binghamton University*

MRS Advances Editorial Board:

Editor-in-Chief: David F. Bahr, *Purdue University*

Asa Barber, *University of Portsmouth, United Kingdom*

Meenakshi Dutt, *Rutgers University*

Elizabeth L. Fleischer, *Materials Research Society*

Marian Kennedy, *Clemson University*

Marilyn L. Minus, *Northeastern University*

Roger J. Narayan, *University of North Carolina/North Carolina State University*

Jeremy Theil, *Mountain View Energy*

Materials Research Society Editorial Office, Warrendale, PA:

Ellen W. Kracht, *Publications Manager*

Susan Dittrich, *Journals Editorial Assistant*

Kirby L. Morris, *Journals Production Assistant*

Eileen M. Kiley, *Director of Communications*

Disclaimer

Authors of each article appearing in this Journal are solely responsible for all contents in their article(s) including accuracy of the facts, statements, and citing resources. Facts and opinions are solely the personal statements of the respective authors and do not necessarily represent the views of the editors, the Materials Research Society, or Cambridge University Press.

MRS Advances (EISSN: 2059-8521) is published by Cambridge University Press, One Liberty Plaza, Floor 20, New York, NY 10006 for the Materials Research Society.

Copyright © 2017, Materials Research Society. All rights reserved. No part of this publication may be reproduced, in any form or by any means, electronic, photocopying, or otherwise, without permission in writing from Cambridge University Press. Policies, request forms and contacts are available at: <http://www.cambridge.org/rights/permissions/permission.htm>. Permission to copy (for users in the USA) is available from Copyright Clearance Center at: <http://www.copyright.com>, email: info@copyright.com.

Purchasing Options:

Premium Subscription- Premium Subscription includes current subscription and one year's lease access to the full MRS Online Proceedings Library Archive for \$7,219.00 / £4,888.00 / €6,647.00. *Subscription-* Subscription with perpetual access to the content subscribed to in a given year, including three years of back-file lease access to content from the MRS Online Proceedings Library Archive. The price for a 2017 subscription is \$3,019.00 / £1,948.00 / €2,625.00. *MRS Members-* Access to *MRS Advances* is available to all MRS members without charge.

Contact Details:

For all inquiries about pricing and access to *MRS Advances*, please get in touch via the following email addresses: online@cambridge.org (for the Americas); library.sales@cambridge.org (for UK, Europe, and rest of world).

cambridge.org/adv

CONTENTS

Low Cost Method for Generating Periodic Nanostructures by Interference Lithography Without the Use of an Anti-reflection Coating927
Omree Kapon, Merav Muallem, Alex Palatnik, Hagit Aviv, and Yaakov R. Tischler	
Silicon Stabilized Alumina Thin Films as Gas Permeation Barriers Prepared by Spatial Atomic Layer Deposition933
Sebastian Franke, Sebastian Beck, Reinhard Caspary, Hans-Hermann Johannes, Annemarie Pucci, and Wolfgang Kowalsky	
Synthesis of LiFePO₄ in an Open-air Environment939
Fei Gu, Kichang Jung, Taehoon Lim, and Alfredo A. Martinez-Morales	
Synthesis of LiFePO₄ Using an Ionic Liquid/Water Composite Medium945
Rany Tith, Darren Kwee, Kichang Jung, and Alfredo A. Martinez-Morales	
Fabrication and Characterization of Nanofiber Enhanced Prepregs951
ABM Iftekharul Islam and Ajit D. Kelkar	
Combination of Hot Forming with CRP and Rapid Cooling to Obtain Enhanced Formability in Thermomechanical Treatment957
Peter Birnbaum, Markus Baumann, Andreas Kunke, Verena Kraeusel, and Dirk Landgrebe	
Macroscopic Characterization of Mechanical Properties in Electric Current Treated Dry Drawn High Strength Wires963
Osamudiamen Omoigade, Arunansu Haldar, and Rongshan Qin	