MATERIALS RESEARCH SOCIETY
SYMPOSIUM PROCEEDINGS VOLUME 1515

Atomic Structure and Chemistry of Domain Interfaces and Grain Boundaries

November 25 - 30, 2012
Boston, Massachusetts, USA

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571
www.proceedings.com

ISBN: 978-1-63266-107-4

Some format issues inherent in the e-media version may also appear in this print version.

©Materials Research Society 2013

This reprint is produced with the permission of the Materials Research Society and Cambridge University Press.

This publication is in copyright, subject to statutory exception and to the provisions of relevant collective licensing agreements. No reproduction of any part may take place without the written permission of Cambridge University Press.

Cambridge University Press
Cambridge, New York, Melbourne, Madrid, Cape Town,
Singapore, São Paulo, Delhi, Tokyo, Mexico City

Cambridge University Press
32 Avenue of the Americas, New York, NY 10013-2473, USA
www.cambridge.org

Materials Research Society
506 Keystone Drive, Warrendale, PA 15086
www.mrs.org

CODEN: MRSPDH

ISBN: 978-1-63266-107-4

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-part Internet Web sites referred to in this publication and does not guarantee that any content on such Web sites is, or will remain, accurate or appropriate.

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

Controlling the Crystalline Quality and the Purity of Single-Walled Carbon Nanotubes Grown by Catalytic Chemical Vapor Deposition 1
Hugo Navas, Matthieu Picher, Raul Arenal, Etienne Quesnel, Eric Anglaret, Vincent Jourdain

Insertion Effect of the 3-nm-thick Co(Pt) Layer on AlN Preferred Orientation and Residual Stress in the C-Axis Textured AlN Film 7
Takashi Harumoto, Shinji Muraishi, Ji Shi, Yoshio Nakamura, Takashi Ishiguro

Atomic Simulations of GB Sliding in Pure and Segregated Bicrystals 13
Motohiro Yuasa, Yasumasa Chino, Mamoru Mabuchi

Direct Observation of Atomic Arrangement around 90° Domain Wall in Lead Titanate Thin Films 19
Takanori Kiguchi, Toyohiko J. Konno, Yoshitaka Ehara, Tomoaki Yamada, Hiroshi Funakubo

Surface Morphology and Electric Property of the AlGaN/AlN/GaN Multilayers with Varying the AlN Thickness 25
Shih-Chun Huang, Wen-Ray Chen, Jia-Ching Lin, Kuo-Jen Chang, Wen-Jen Lin, Li-Chun Wang

Cu Grain Boundary Embrittlement by Liquid Hg: A Comparison between Experiment and ab-initio Modeling 30
Julien Colombeau, Thierry Auger, Duane Johnson, Linlin Wang

Author Index