## SEMATECH Workshop on Directed Self Assembly 2010

Kobe, Japan 20 October 2010

ISBN: 978-1-61839-387-6

#### Printed from e-media with permission by:

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



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

Copyright© (2010) by SEMATECH All rights reserved.

Printed by Curran Associates, Inc. (2012)

For permission requests, please contact SEMATECH at the address below.

SEMATECH 2706 Montopolis Drive Austin, Texas 78741

Phone: (512) 356-3500 Fax: (512) 356-7848

www.sematech.org

#### Additional copies of this publication are available from:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571 USA Phone: 845-758-0400

Phone: 845-758-0400 Fax: 845-758-2634

Email: curran@proceedings.com Web: www.proceedings.com

# **SEMATECH Workshop on Directed Self Assembly**

### October 20, 2010 Kobe, Japan

Introduction to / Status of Directed Self-Assembly	B. Hinsberg, IBM Almaden Research Center	1
Line Edge Roughness of Direct Self Assembled PS-PMMA BCP - A Transmission X-rey Scattering study	W. Wu, Polymers Division, NIST	9
SEMATECH Workshop on Direct Self Assembly	L. Litt, SEMATECH/GF	24
Directed Self Assembly an ITRS Perspective	M. Garner, Intel	27
Pattern density multiplication by direct self assembly of block copolymers using 193nm lithography	R. Tiron, LETI	38
Directed self -assembly of siloxane block copolymers for sub- 10 nm lithography	Y. Jung, KAIST	51
Directed Block Copolymer Assembly Integrated with Conventional ArF or 1-line lithography	S. Kim, KAIST	72
Integration of block copolymer directed self-assembly with 193i lithography towards fabrication of nanowire MOSFETs	C. Liu, University of Wisconsin	94
Large Scale Fast Directed Assembly of Carbon Nanotubes, Polymers and Nanoparticles for Electronics Application	A. Busnaina, NEU	107