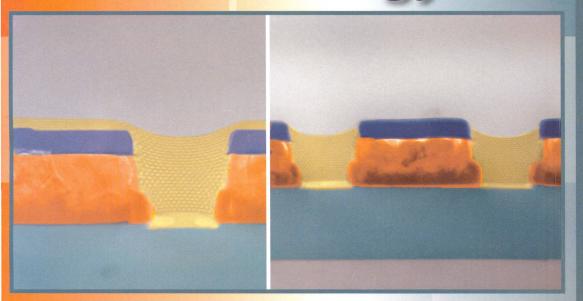
The Electrochemical Society

Evolution of Dielectric Science and Technology for



Nanoelectronics

VOL. 20, NO. 4 Winter 2011



IN THIS ISSUE

- **3** From the Editor: What Do We Do?
- 7 From the President: New Milestones for ECS
- 9 Boston, Massachusetts: Meeting Highlights
- **16** Candidates for Society Office
- 29 Tech Hightlights
- 31 Evolution of Dielectric Science and Technology for Nanoelectronics
- 33 Impact of Aminosilane Precursor Structure on Silicon Oxides by Atomic Layer Deposition
- 9 Advances in Ultra Low Dielectric Constant Ordered Porous Materials
- 47 High k Dielectrics on High Mobility Substrates: The Interface!
- 75 PRiME 2012, Honolulu, HI Call for Papers

The Electrochemical Society

Evolution of Dielectric Science and Technology for Nanoelectronics

by Durga Misra

33 Impact of Aminosilane Precursor Structure on Silicon Oxides by Atomic Layer Deposition

<mark>by Mark L. O'Neill, Heather R. Bowen, Anges Derecskei-Kovacs, Kirk S. Cuthill, Bing Han, and Manchao Xiao</mark>



Advances in Ultra Low Dielectric Constant Ordered Porous Materials

<mark>by Richard Farrell, Tandra G</mark>oshal, Uros Cvelbar, Nikolay Petkov, and Michael A. Morris



High *k* Dielectrics on High Mobility Substrates: The Interface!

by Durga Misra

Vol. 20, No. 4 Winter 2011



From the Editor: What Do We Do?

From the President: New Milestones for ECS

- Boston, MA, Meeting Highlights
- Candidates for Society Office

Society News

- People News
- 🔑 Tech Highlights
- Section News

Awards

- **New Members**
- ECS Fellowship Reports
- / Student News

PRIME 2012, Honolulu, HI, Call for Papers

On the cover...

An example of aligned mesopores in intra-metal channels as Ultra Low-*k* dielectrics: See article starting on page 44.

Cover design by Dinia Agrawala.