CHEMICAL REVIEWS

January 13, 2010Volume 110, Issue 1
Pages 1-574

ARTICLES

Introduction: Materials for Electronics

Robert D. Miller, Edwin A. Chandross

pp 1-2

Publication Date (Web): January 13, 2010 (Editorial)

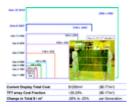
DOI: 10.1021/cr900384b

Materials and Applications for Large Area Electronics: Solution-Based Approaches

Ana Claudia Arias, J. Devin MacKenzie, Iain McCulloch, Jonathan Rivnay and Alberto Salleo pp 3-24

Publication Date (Web): January 13, 2010 (Review)

DOI: 10.1021/cr900150b



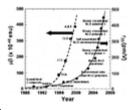
Electric Field Poled Organic Electro-optic Materials: State of the Art and Future Prospects

Larry R. Dalton, Philip A. Sullivan and Denise H. Bale

pp 25-55

Publication Date (Web): October 22, 2009 (Review)

DOI: 10.1021/cr9000429



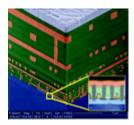
Low Dielectric Constant Materials

Willi Volksen, Robert D. Miller and Geraud Dubois

pp 56-110

Publication Date (Web): December 4, 2009 (Review)

DOI: 10.1021/cr9002819



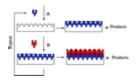
Atomic Layer Deposition: An Overview

Steven M. George

pp 111-131

Publication Date (Web): November 30, 2009 (Review)

DOI: 10.1021/cr900056b



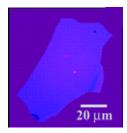
Honeycomb Carbon: A Review of Graphene

Matthew J. Allen, Vincent C. Tung and Richard B. Kaner

pp 132-145

Publication Date (Web): July 17, 2009 (Review)

DOI: 10.1021/cr900070d



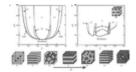
Block Copolymer Based Nanostructures: Materials, Processes, and Applications to Electronics

Ho-Cheol Kim, Sang-Min Park and William D. Hinsberg

pp 146-177

Publication Date (Web): December 1, 2009 (Review)

DOI: 10.1021/cr900159v



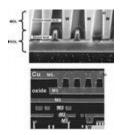
Chemical Mechanical Planarization: Slurry Chemistry, Materials, and Mechanisms

Mahadevaiyer Krishnan, Jakub W. Nalaskowski and Lee M. Cook

pp 178-204

Publication Date (Web): November 23, 2009 (Review)

DOI: 10.1021/cr900170z



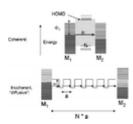
High-*k* Organic, Inorganic, and Hybrid Dielectrics for Low-Voltage Organic Field-Effect Transistors

Rocío Ponce Ortiz, Antonio Facchetti and Tobin J. Marks

pp 205-239

Publication Date (Web): October 23, 2009 (Review)

DOI: 10.1021/cr9001275



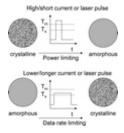
Phase Change Materials and Their Application to Nonvolatile Memories

Simone Raoux, Wojciech Wełnic and Daniele Ielmini

pp 240-267

Publication Date (Web): August 28, 2009 (Review)

DOI: 10.1021/cr900040x



Color Control in π -Conjugated Organic Polymers for Use in Electrochromic Devices

Pierre M. Beaujuge and John R. Reynolds

pp 268-320

Publication Date (Web): January 13, 2010 (Review)

DOI: 10.1021/cr900129a



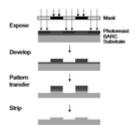
Advances in Patterning Materials for 193 nm Immersion Lithography

Daniel P. Sanders

pp 321-360

Publication Date (Web): January 13, 2010 (Review)

DOI: 10.1021/cr900244n



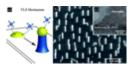
Growth, Thermodynamics, and Electrical Properties of Silicon Nanowires

V. Schmidt, J. V. Wittemann and U. Gösele

pp 361-388

Publication Date (Web): January 13, 2010 (Review)

DOI: 10.1021/cr900141g



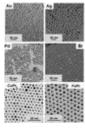
Prospects of Colloidal Nanocrystals for Electronic and Optoelectronic Applications

Dmitri V. Talapin, Jong-Soo Lee, Maksym V. Kovalenko and Elena V. Shevchenko

pp 389-458

Publication Date (Web): December 3, 2009 (Review)

DOI: 10.1021/cr900137k



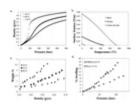
Supercritical Fluids for the Fabrication of Semiconductor Devices: Emerging or Missed Opportunities?

Alvin H. Romang and James J. Watkins

pp 459-478

Publication Date (Web): December 17, 2009 (Review)

DOI: 10.1021/cr900255w



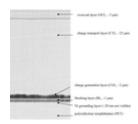
Advances in Organic Photoconductor Technology

David S. Weiss, Martin Abkowitz

pp 479-526

Publication Date (Web): October 22, 2009 (Review)

DOI: 10.1021/cr900173r



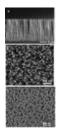
Semiconductor Nanowires for Energy Conversion

Allon I. Hochbaum and Peidong Yang

pp 527-546

Publication Date (Web): October 9, 2009 (Review)

DOI: 10.1021/cr900075v



Chemical Aspects of Three-Dimensional Photonic Crystals

Jun Hyuk Moon and Shu Yang

pp 547-574

Publication Date (Web): August 5, 2009 (Review)

DOI: 10.1021/cr900080v

