

2008 MRL PUBLICATIONS

IRG 1

b. Partial MRSEC Support

L.A. Connal, R. Vestberg, P.A. Gurr, C.J. **Hawker**, G.G. Qiao, "Patterning on nonplanar substrates: Flexible honeycomb films from a range of self-assembling star copolymers," *Langmuir* **24**, 556 (2008)

J. Fan, S.W. Boettcher, C. Tsung, Q. Shi, M. Schierhorn, G.D. **Stucky**, "Field-directed and confined molecular assembly of mesostructured materials: Basic principles and new opportunities," *Chem. Mater.* **20**(3), 909 (2008)

C. Geary, S. Baudrey, L. **Jaeger**, "Comprehensive features of natural and *in vitro* selected GNRA tetraloop binding receptors," *Nucleic Acids Research* **36**(4), 1138 (2008)

K. Takizawa, C. Tang, C.J. **Hawker**, "Molecularly defined caprolactone oligomers and polymers: Synthesis and characterization," *J. Am. Chem. Soc.* **130**, 1718 (2008)

IRG 2

a. Primary MRSEC Support

A. Janotti, C.G. **Van de Walle**, "Sources of unintentional n-type conductivity in InN," *Appl. Phys. Lett.* **92**, 032104 (2008)

C.G. **Van de Walle**, "Computational studies of conductivity in wide-band-gap semiconductors and oxides," *J. Phys. C* **20**, 064230 (2008)

b. Partial MRSEC Support

N. Umezawa, A. Janotti, P. Rinke, T. Chikyow, C.G. **Van de Walle**, “Optimizing optical absorption of TiO₂ by alloying with TiS₂,” *Appl. Phys. Lett.* **92**, 041104 (2008)

IRG 3

a. Primary MRSEC Support

B.J. Kim, G.H. **Fredrickson**, E.J. **Kramer**, “Effect of polymer ligand molecular weight on polymer-coated nanoparticle location in block copolymers,” *Macromolecules* **41**, 436 (2008)

b. Partial MRSEC Support

Y. Hu, J. **Israelachvili**, “Lateral reorganization of myelin lipid domains by myelin basic protein studied at the air-water interface,” *Colloids and Surfaces B: Biointerfaces* **62**, 22 (2008)

Y. Min, M. Akbulut, N. Belman, Y. Golan, J. Zasadzinski, J. **Israelachvili**, “Normal and shear forces generated during the ordering (directed assembly) of confined straight and curved nanowires,” *Nanoletters* **8**(1), 246 (2008)

SEED

b. Partial MRSEC Support

R. Brutchey, G. Cheng, Q. Gu, D.E. **Morse**, “Positive temperature coefficient of resistivity in donor-doped BaTiO₃ ceramics derived from nanocrystals synthesized at low temperature,” *Advanced Materials* **20**(5), 1029 (2008)

M.J. Harrington, J.H. Waite, “pH-Dependent locking of giant mesogens in fibers drawn from mussel byssal collagens,” *Biomacromolecules*, ASAP Article; DOI: 10.1021/bm8000827 (2008)

E.R. McCarney, S. **Han**, "Spin-labeled gel for the production of radical-free dynamic nuclear polarization enhanced molecules for NMR spectroscopy and imaging," *J. Magn. Reson.* **190**, 307 (2008)

A. Miserez, T. Schneberk, C. Sun, F.W. Zok, J.H. Waite, "The transition from stiff to compliant materials in squid beaks," *Science* **319**, 1816 (2008)

B. Schwenzer, D.E. **Morse**, "Biologically inspired synthesis route to three-dimensionally structured inorganic thin films," *Journal of Nanomaterials* **2008**, Article ID 352871, 6 pages (2008)

SHARED FACILITIES

S. Disch, A.K. **Cheetham**, U. Ruschewitz, "Formation of unsaturated C3 hydrocarbons by the protolysis of magnesium sesquicarbide with ammonium halides," *Inorg. Chem.* **47**(3), 969 (2008)

J.A. Finley, S. Krishnan, M.E. Callow, J.A. Callow, R. Dong, N. Asgill, K. Wong, E.J. **Kramer**, C.K. Ober, "Settlement of *Ulva* zoospores on patterned fluorinated and PEGylated monolayer surfaces," *Langmuir* **24**, 503 (2008)

H.C. Hesse, R. Beck, C. Ding, J.B. Jones, J. Deek, N.C. MacDonald, Y. Li, C.R. **Safinya**, "Direct imaging of aligned neurofilament networks assembled using in situ dialysis in microchannels," *Langmuir*, ASAP Article; DOI: 10.1021/la800266m (2008)

H. Liang, G. Whited, C. Nguyen, A. Okerlund, G.D. **Stucky**, "Inherently tunable electrostatic assembly of membrane proteins," *Nano Lett.* **8**(1), 333 (2008)

A. Miserez, J.C. Weaver, P.J. Thurner, J. Aizenberg, Y. Dauphin, P. Fratzl, D.E. **Morse**, F.W. Zok, "Effects of laminate architecture on fracture resistance of sponge biosilica: Lessons from nature," *Adv. Funct. Materials* **18**, 1 (2008)

R. Westlund, E. Glimsdal, M. Lindgren, R. Vestberg, C.J. **Hawker**, C. Lopes, E. Malmstrom, "Click chemistry for photonic applications: triazole-functionalized platinum(II) acetylides for optical power limiting," *J. Mater. Chem.* **18**, 166 (2008)

H. Zeng, Y. Tian, T. Anderson, M. **Tirrell**, J. **Israelachvili**, “New SFA techniques for studying surface forces and thin film patterns induced by electric fields,” *Langmuir* **24**(4), 1173 (2008)

PATENTS

C. Tang, C.J. **Hawker**, E.J. **Kramer**, G.H. **Fredrickson**, “Sub-micron lithography from diblock copolymer blends with supramolecular interactions”

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