Alberius-Henning, P.C.A., K. Frindell, R.C. Hayward, E.J. Kramer, G.D. Stucky, and B.F. Chmelka, "General predictive syntheses of cubic, hexagonal, and lamellar silica and titania mesostructured thin films," *Chemistry of Materials*, Vol. 14, pg. 3284 (2002)

Baeck, S.H., T.F. Jaramillo, C. Brandli, and E. McFarland, "Combinatorial electrochemical synthesis and characterization of tungsten-based mixed metal oxides," *J. Combinatorial Chemistry*, Vol. 4, pg. 563 (2002)

Baeck, S.H., T.F. Jaramillo, G.D. Stucky, and E. McFarland, "Controlled electrodeposition of nanoparticulate tungsten oxide," *Nanoletters*, Vol. 2, No. 8, pg. 831 (2002)

Baeck, S.H. and E.W. McFarland, "Combinatorial electrochemical synthesis and characterization of tungsten-molybdenum mixed oxides," *Korean J. Chem. Engin.*, Vol. 19, No. 4, pg. 593 (2002)

Balastre, M., F. Li, P.A. Schorr, J. Yang, J. Mays, and M.V. Tirrell, "A study of polyelectrolyte brushes formed from adsorption of amphiphilic diblock copolymers using the surface forces apparatus," *Macromolecules*, Vol. 35, pg. 9480 (2002)

Benkoski, J.J., G.H. Fredrickson, and E.J. Kramer, "Model for the fracture energy of glassy polymer-polymer interfaces," *J. Polym. Sci. Part B: Polym. Phys.*, Vol. 40, pg. 2377 (2002)

Bjorndal, M.T. and D.K. Fygenson, "DNA melting in the presence of fluorescent intercalating oxazole yellow dyes measured with a gel-based assay," *Biopolymers*, Vol. 65, pg. 40 (2002)

Brzezinska, K.R., S.A. Curtin, and T.J. Deming, "Polypeptide end-capping using functionalized isocyanates: Preparation of pentablock copolymers," *Macromolecules*, Vol. 35, pg. 2970 (2002)

Campbell B.J. and A.K. Cheetham, "Linear framework defects in zeolite mordenite," *J Phys Chem.*, Vol. B106, pg. 57 (2002)

Chen, H.-Y. and G.H. Fredrickson, "Morphologies of ABC triblock copolymer thin films," *J. Chem. Phys.*, Vol. 116, pg. 1137 (2002)

Choi, K-S., H. Lichtenegger, G.D. Stucky, and E.W. McFarland, "Electrochemical synthesis of nanostructured ZnO films utilizing self assembly of surfactant molecules at solid-liquid interfaces," *J. Am. Chem. Soc.*, Vol. 124, No. 42, pg. 12402 (2002)

Craven, M.D., S.H. Lim, F. Wu, J.S. Speck, and S.P. DenBaars, "Structural characterization of nonpolar (1120) *a*-plane GaN thin films grown on (1102) *r*-plane sapphire," *Appl. Phys. Lett.*, Vol. 81, No. 3, pg. 469 (2002)

Craven, M.D., S.H. Lim, F. Wu, J.S. Speck, and S.P. DenBaars, "Threading dislocation reduction via laterally overgrown nonpolar (1120) *a*-plane GaN," *Appl. Phys. Letters*, Vol. 81, No. 7, pg. 1201 (2002)

Deming, T.J., "Methodologies for preparation of synthetic block copolypeptides: Materials with future promise in drug delivery," *Advanced Drug Delivery Reviews*, Vol. 54, pg. 1145 (2002)

Eckert, J., C.M. Mellot, and A.K. Cheetham, "Direct observation of host-guest hydrogen bonding in the zeolite NaY/chloroform system by neutron scattering," *J. Am. Chem. Soc.*, Vol. 124, pg. 170 (2002)

Ewert, K., A. Ahmad, H.M. Evans, H.-W. Schmidt, and C.R. Safinya, "Efficient synthesis and cell-transfection properties of a new multivalent cationic lipid for non-viral gene delivery," *J. Medicinal Chemistry*, Vol. 45, No. 23, pg. 5023 (2002)

Fan, C., B. Gillespie, G. Wang, A.J. Heeger, and K.W. Plaxco, "Spectroscopy and electrochemistry of the covalent pyridine-cytochrome c complex and a pyridine-induced 'alkaline-like' conformation," *J. Phys. Chem B*, Vol. 106, pg. 11375 (2002)

Fan, C., K.W. Plaxco, and A.J. Heeger, "High-efficiency fluorescence quenching of conjugated polymers by proteins," *J. Am. Chem. Soc.*, Vol. 124, No. 20, pg. 5642 (2002)

Farago, O. and P. Pincus, "Solute effects on the helix-coil transition," *Euro. Phys. J. E*, Vol. 7, pg.393 (2002)

Farago, O., Y. Kantor, and M. Kardar, "Pulling knotted polymers," Europhys. Lett., Vol. 60, pg. 53 (2002)

Farago, O. and P. Pincus, "Solute effects on the helix-coil transition," *Euro. Phys. J. E*, Vol. 7, pg.393 (2002)

Filippetti, A. and N.A. Hill, "Coexistence of magnetism and ferroelectricity in perovskites," *Phys. Rev. B*, Vol. 65, pg. 195120 (2002)

Fitzsimmons, M.R., H. Fritzsche, J. Major, R. Pynn, and M.T. Rekveldt, "Enhancing the resolution and intensity of neutron scattering experiments using neutron spin echo," *Advances in Neutron Scattering Instrumentation*, I.A. Anderson and B. Guerard, Editors, Proc. SPIE, Vol. 4785, pg. 143 (2002)

Foroudian, H.J., N.D. Gillitt, and C.A. Bunton, "Effects of nonionic micelles on dephosphorylation and aromatic nucleophilic substitution," *Journal of Colloid and Interface Science*, Vol. 250, pg. 230 (2002)

Forster, P.M. and A.K. Cheetham, "Open-framework nickel succinate, $Ni_7(C_4H_4O_4)_6(OH)_2(H_2O)_2$: a new hybrid material with 3-D metal oxide connectivity," *Angew Chem. Int'l. Ed.*, Vol. 41, pg. 457 (2002)

Forster, P.M., P.M. Thomas, and A.K. Cheetham, "Biphasic solvothermal synthesis; a new approach for hybrid inorganic-organic materials," *Chem. Mater.*, Vol. 14, pg. 17 (2002)

Fredrickson, G.H., "Dynamics and rheology of inhomogeneous polymeric fluids: A complex Langevin approach," J. Chem. Phys., Vol. 117, pg. 6810 (2002)

Fredrickson, G.H., V. Ganesan, and F. Drolet, "Field-theoretic computer simulation methods for polymers and complex fluids," *Macromolecules*, Vol. 35, pg. 16 (2002)

Gerardot, B.D., G. Subramanian, S. Minvielle, H. Lee, J.A. Johnson, W.V. Schoenfeld, D. Pine, J.S. Speck, and P.M. Petroff, "Self-assembling quantum dot lattices through nucleation site engineering," *J. of Crystal Growth*, Vol. 236, pg. 647 (2002)

Goh, G.K.L., S.M. Haile, C.G. Levi, and F.F. Lange, "Hydrothermal synthesis of perovskite and pyrochlore powders of potassium tantalate," *J. Mat. Res.*, Vol. 17, No. 12, pg. 3168 (2002)

Goh, G.K.L., C.G. Levi, and F.F. Lange, "Hydrothermal epitaxy of KTaO₃ thin films," *J. Mat. Res.*, Vol. 17, No. 11, pg. 2852 (2002)

Golan, Y, M. Seitz, C. Luo, A. Martin-Herranz, M. Yasa, Y.L. Li, C.R. Safinya, and J. Israelachvili, "The x-ray surface forces apparatus for simultaneous x-ray diffraction and direct normal and lateral force measurements," *Review of Scientific Instruments*, Vol. 73, No. 6, pg. 2486 (2002)

Gravano, S, M. Borden, T. von Werne, E. Doerffler, G. Salazar, E. Kisak, J. Zasadzinski, T. Patten, and M. Longo, "Poly(4-amino Methyl styrene)-b-Poly(styrene): Synthesis and unilamellar vesicle formation," *Langmuir*, Vol. 18, pg. 1938 (2002)

Han, Y-J., J.T. Watson, G.D. Stucky, and W. Butler, "Catalytic activity of mesoporous silicateimmobilized chloroperoxidase," *J. of Molecular Catalysis B: Enzymatic*, Vol. 17, pg. 1 (2002)

Hansen, M., L.F. Chen, S.H. Lim, S.P. DenBaars, and J.S. Speck, "Mg-rich precipitates in the *p*-type doping of InGaN-based laser diodes," *Appl. Phys. Lett.*, Vol. 80, No. 14, pg. 2469 (2002)

Hansen, M., P. Fini, M. Craven, B. Heying, J.S. Speck, and S.P. DenBaars, "Morphological and optical properties of InGaN laser diodes on laterally overgrown GaN," *J. Crys. Growth*, Vol. 234, pg. 623 (2002)

Hansma, H.G., D.O. Clegg, E. Kokkoli, E. Oroudjev, and M. Tirrell, "Analysis of matrix dynamics by atomic force microscopy," <u>Methods in Cell Biology</u>, Vol. 69, Adams, J., Ed., San Diego: Academic Press, pg. 159 (2002)

Hill, N.A., "Density functional studies of multiferroic magnetoelectrics," Annu. Rev. Mater. Res., Vol. 32, pg. 1 (2002)

Hill, N.A., P. Bättig, and C. Daul, "First principles search for multiferroism in BiCrO₃," *J Phys. Chem. B.*, Vol. 106, pg. 3383 (2002)

Hill, N.A., and A. Filippetti, "Why are there *any* magnetic ferroelectrics?" *J. of Magnetism and Magnetic Materials*, Vol. 242-245, pg. 976 (2002)

Holden, P.A., M.G. LaMontagne, A.K. Bruce, W.G. Miller, and S.E. Lindow, "Assessing the role of *pseudomonas aeruginosa* surface-active gene expression in hexadecane biodegradation in sand," *Applied and Environmental Microbiology*, Vol. 68, No. 5, pg. 2509 (2002)

Jaramillo, T.F, A. Ivanovskaya, and E.W. McFarland, "High-throughput screening system for catalytic hydrogen-producing materials," *J. Combinatorial Chem.*, Vol. 4, No. 1, pg.17 (2002)

Jung, H.T., S.Y. Lee, E.W. Kaler, B. Coldren, and J. Zasadzinski, "Gaussian curvature and the equilibrium between bilayer cylinders, spheres and discs," *Proceedings of the National Academy of Sciences*, Vol. 99, pg. 15318 (2002)

Katona, T.M., J.S. Speck, and S.P. DenBaars, "Control of crystallographic tilt in GaN grown on Si(111) by cantilever epitaxy," *Appl. Phys. Lett.*, Vol. 81, No. 19, pg. 3558 (2002)

Kindt, J.H., J.B. Thompson, M.B. Viani, and P.K. Hansma, "Atomic force microscope detector drift compensation by correlation of similar traces acquired at different setpoints," *Review of Scientific Instruments*, Vol. 73, No. 6, pg. 2305 (2002)

Kisailus, D., J.H. Choi, and F.F. Lange "Chemical solution deposited GaN films from oxygen- and nitrogen-based precursors," J. Mat. Res., Vol. 17, No. 10, pg. 2540 (2002)

Kisak, E., B. Coldren, and J. Zasadzinski, "Nano-compartments enclosing vesicles, colloids and macromolecules via interdigitated lipid bilayers," *Langmuir*, Vol. 18, pg. 284 (2002)

Kroke, E., L. Loeffler, F.F. Lange, and R. Riedel, "Aluminum nitride prepared by nitridation of aluminum oxide precursors," *J. Am. Ceram. Soc.*, Vol. 85, No. 12, pg. 3117 (2002)

Lau, A.W.C., D.B. Lukatsky, P. Pincus, and S.A. Safran, "Charge fluctuations and counterion condensation," *Phys. Rev. E*, Vol. 65, pg. 051502 (2002)

Lee, K.Y.C., J. Majewski, A. von Nahmen, A. Gopal, P.B. Howes, K. Kjaer, G.S. Smith, and J. Zasadzinski, "Influence of palmitic acid and hexa decanol on the phase transition temperature and molecular packing of dipalmitoylphosphatidyl-choline monolayers at the air-water interface," *J. Chemical Physics*, Vol. 116, pg. 774 (2002)

Li, X., L. Andruzzi, E. Chiellini, G. Galli, C.K. Ober, A. Hexemer, E.J. Kramer, and D.A. Fischer, "Semifluorinated aromatic side-group polystyrene-based block copolymers: Bulk structure and surface orientation studies," *Macromolecules*, Vol. 35, pg. 8078 (2002)

Loiseau, T., S. Neeraj, and A.K. Cheetham, "GaFPO₃(C_6H_5): a new fluorinated gallium phenylphosphonate with a layered network," *Acta Crystallogr. C*, Vol. 58, pg. 379 (2002)

López Cabarcos, E., A.F. Brana, B. Frick, and F. Batallan, "Molecular dynamics and thermal hysteresis loops of the 60/40 vinylidene fluoride-trifluoroethylene ferroelectric copolymer," *Phys. Rev. B.*, Vol. 65, pg. 104110 (2002)

Lukatsky, D.B., S.A. Safran, A.W.C. Lau, and P. Pincus, "Enhanced counterion localization induced by surface charge modulation," *Europhys. Lett.*, Vol. 58, pg. 785 (2002)

Maeda, N., N. Chen, M. Tirrell, and J.N. Israelachvili, "Adhesion and friction mechanisms of polymer-on-polymer surfaces," *Science*, Vol. 297, pg. 379 (2002)

Moreira dos Santos, A., A.K. Cheetham, T. Atou, Y. Syono, Y. Yamaguchi, K. Ohoyama, H. Chiba, and C.N.R. Rao, "Orbital ordering as the determinant for ferromagnetism in biferroic BiMnO₃," *Phys. Rev. B*, Vol. 66, pg. 064425 (2002)

Moreira dos Santos, A., S. Parashar, A.R. Raju, Y.S. Zhou, A.K. Cheetham, and C.N.R. Rao, "Evidence for the likely occurrence of magnetoferroelectricity in the simple perovskite, BiMnO₃," *Solid State Comm.*, Vol. 122, pg. 49 (2002)

Neeraj, S. and A.K. Cheetham, "Synthesis of open-framework zinc phosphates from organophosphorus amides," *Chem. Commun.*, pg. 1738 (2002)

Neeraj, S., M.L. Noy, and A.K. Cheetham, "Structure and magnetic properties of a three-dimensional framework manganese(II) phosphate, [NH₄][Mn₄(PO₄)₃]," *Solid State Sciences*, Vol. 4, pg. 397 (2002)

Neeraj, S., M.L. Noy, C.N.R. Rao, and A.K. Cheetham, "Open-framework cobalt(II) phosphates with sodalite-related architectures," *J. Solid State Chem.*, Vol. 167, pg. 344 (2002)

Neeraj, S., M.L. Noy, C.N.R. Rao, and A.K. Cheetham, "Sodalite networks formed by metal squarates," *Solid State Sciences*, Vol. 4, pg. 1231 (2002)

Newton, C.N., J.G. DeLuca, R.H. Himes, H.P. Miller, M.A. Jordan, and L. Wilson, "Intrinsically slow dynamic instability of HeLa cell microtubules *in Vitro*," *J. of Biological Chemistry*, Vol. 277, No. 45, pg. 42456 (2002)

Nowak, A.P., V. Breedveld, L. Pakstis, B. Ozbas, D.J. Pine, D. Pochan, and T.J. Deming, "Rapidly recovering hydrogel scaffolds from self-assembling diblock copolypeptide amphiphiles," *Nature*, Vol. 417, pg. 424 (2002)

Oroudjev E, J. Soares, S. Arcidiacono, J.B. Thompson, S.A. Fossey, H.G. Hansma, "Segmented nanofibers of spider dragline silk: Atomic force microscopy and single-molecule force spectroscopy," *Proc. Natl. Acad. Sci. USA*, Vol. 99, pg. 6460 (2002)

Pfohl, T., Y. Li, J.H Kim, Z. Wen, G.C.L. Wong, I. Koltover, M.W. Kim, and C.R. Safinya, "Biological polyelectrolyte complexes in solution and confined on patterned surfaces," *Colloids and Surfaces A-Physicochemical and Engineering Aspects*, Vol. 198, pg. 613 (2002)

Poblenz, C., T. Mates, M. Craven, S.P. DenBaars, and J.S. Speck, "Impurity incorporation in InGaN grown by rf plasma-assisted molecular beam epitaxy," *Appl. Phys. Lett.*, Vol. 81, No. 15, pg. 2767 (2002)

Puchinger, M., D.J. Kisailus, and F.F. Lange, "Grain growth of precursor-derived nanocrystalline gallium nitride powder," *J. Mat. Res.*, Vol. 17, No. 2, pg. 353 (2002)

Puchinger, M., D.J Kisailus, F.F. Lange, and T. Wagner, "Microstructural evolution of precursor-derived gallium nitride thin films," *J. Cryst Growth*, Vol. 245, Nos. 3-4, pg. 219 (2002)

Pynn, R., M.R. Fitzsimmons, M.T. Rekveldt, J. Major, H. Fritzsche, D. Weller and E.C. Johns, "Optimization of neutron scattering instrumentation using neutron spin echo: Application to the discrimination of diffuse scattering in neutron reflectivity experiments," *Rev. Sci. Instrum.*, Vol. 73, pg. 2948 (2002)

Ruokolainen, J., C. Ryu, S. Magonov, S.F. Hahn, G.H. Fredrickson, and E.J. Kramer, "Effect of thermal history and microdomain orientation on deformation and fracture properties of Poly(cyclohexylethylene)-Polyethylene block copolymers," *Macromolecules*, Vol. 35, pg. 9391 (2002)

Ryu, C., J. Ruokolainen, G.H. Fredrickson, E.J. Kramer, and S.F. Hahn, "Chain architecture effects on deformation and fracture of block copolymers with unentangled matrices," *Macromolecules*, Vol. 35, pg. 2157 (2002)

Safinya, C.R., A. Lin, N. Slack, and I. Koltover, "Structure and structure-activity correlations of cationic lipid/DNA complexes: supramolecular assembly and gene delivery", in <u>Pharmaceutical Perspectives of Nucleic Acid-Based Therapeutics</u>, Eds. Ram I. Mahato and Sung Wan Kim (Taylor & Francis, London & New York, 2002)

Santangelo, C.D. and P. Pincus, "Coiling instabilities of multilamellar tubes," *Physical Review E*, Vol. 66, pg. 061501 (2002)

Sanvito, S. and N.A. Hill, "First principle study of intrinsic defects in (Ga,Mn)As," J. of Magnetism and Magnetic Materials, Vol. 242-245, pg. 441 (2002)

Sanvito, S. and N.A. Hill, "Prediction of enhanced ferromagnetism in (Ga,Mn)As by intrinsic defect manipulation," *J. of Magnetism and Magnetic Materials*, Vol. 238, pg. 252 (2002)

Sanvito, S., G. Theurich, and N.A. Hill, "Density functional calculations for III-V diluted ferromagnetic semiconductors: A review," *J. of Superconductivity: Incorporating Novel Magnetism*, Vol. 15, pg. 85 (2002)

Sapra, S., D.D. Sarma, S. Sanvito, and N.A. Hill, "Influence of quantum confinement on the electronic and magnetic properties of (Ga,Mn)As diluted magnetic semiconductor," *Nano Letters*, Vol. 2, pg. 605 (2002)

Schmit, J., R. Menes, and P.A. Pincus, "Dielectric-induced counterion partitioning and its effect on membrane rigidity," *Phys. Rev. E*, Vol. 66, pg. 061502 (2002)

Steinberg, M. and K. Schofield, "The controlling chemistry of surface deposition from sodium and potassium seeded flames free of sulfur or chlorine impurities," *Combustion and Flame*, Vol. 129, pg. 453 (2002)

Stock, N., G.D. Stucky, and A.K. Cheetham, "Synthesis and characterization of the synthetic minerals villyaellenite and sarkinite, Mn₅(AsO₄)2(HAsO₄)2·4H₂O and Mn₂(AsO₄)(OH)," *Z Anorg. Allg. Chem.*, Vol. 628, pg. 357 (2002)

Su, X., A.M. Belcher, C.M. Zaremba, D.E. Morse, G.D. Stucky, and A.H. Heuer, "Structural and microstructural characterization of the growth lines and prismatic microarchitecture in red abalone shell, and the microstructures of abalone 'flat pearls'," *Chem. Mater.*, Vol. 14, pg. 3106 (2002)

Tadmor, R., E. Hernandez-Zapata, N. Chen, P. Pincus, and J.N. Israelachvili, "Debye length and doublelayer forces in polyelectrolyte solutions," *Macromolecules*, Vol. 35, pg. 2380 (2002)

Taylor, T.R., P.J. Hansen, B. Acikel, N. Pervez, R.A. York, S.K. Streiffer, and J.S. Speck, "Impact of thermal strain on the dielectric constant of sputtered barium strontium titanate thin films," *Appl. Phys. Lett.*, Vol. 80, pg. 1978 (2002)

Thompson, J.B., H.G. Hansma, P.K. Hansma, and K.W. Plaxco, "The backbone conformational entropy of protein folding: Experimental measures from atomic force microscopy," *Journal of Molecular Biology*, Vol. 322, No. 3, pg. 645 (2002)

Tirrell, M., E. Kokkoli, and M. Biesalski, "The role of surface science in bioengineered materials," *Surface Science*, Vol. 500, pg. 61 (2002)

Wang, D., X. Gong, P.S. Heeger, F. Rininsland, G.C. Bazan, and A.J. Heeger, "Biosensors from conjugated polyelectrolyte complexes," *PNAS*, Vol. 99. No. 1, pg. 49 (2002)

Wessler, B., F.F. Lange, and W. Mader, "Textured ZnO thin films on (0001) sapphire produced by chemical solution deposition," *J. Mater. Res.*, Vol. 17, No. 7, pg. 1644 (2002)

Wustman, B.A., D.E. Morse, and J.S. Evans, "Structural analyses of polyelectrolyte sequence domains within the adhesive elastomeric biomineralization protein, Lustrin A," *Langmuir*, Vol. 18, pg. 9901 (2002)

Yang, C.Y, V. Srdanov, M.R. Robinson, G.C. Bazan, and A.J. Heeger, "Orienting Eu(dnm)(3)phen by tensile drawing in polyethylene: Polarized Eu3+ emission," *Advanced Materials*, Vol. 14, No. 13-14, pg. 980 (2002)

Yang, C.Y., S.J. Wang, M.R. Robinson, G.C. Bazan, and A.J. Heeger, "Structural phase transformation in tetrakis(4,4 '-(2,2-diphenyl-vinyl)-1,1'-biphenyl)methane," *Materials Chemistry & Physics*, Vol. 76, No. 1, pg. 64 (2002)

Yang, S-M., L.G. Leal, and Y-S. Kim, "Hydrodynamic interaction between spheres coated with deformable thin liquid films," *J. Colloid and Interface Science*, Vol. 250, pg. 457 (2002)

Yi, G-R, V.N. Manoharan, S. Klein, K.R. Brzezinska, D.J. Pine, F.F. Lange, and S-M Yang, "Monodisperse micrometer-scale spherical assemblies of polymer particles," *Adv. Mater.*, Vol. 14, pg. 1137 (2002)

Yim, H., M.S. Kent, J. Hall, J.J. Benkoski, and E.J. Kramer, "Probing the structure of organosilane films by solvent swelling and neutron and X-ray reflection," *J. Phys. Chem. B*, Vol. 106, pg. 2474 (2002)

Zhang, B., B. Wustman, D.E. Morse, and J.S.Evans, "Model peptide studies of sequence regions in the elastomeric biomineralization protein, Lustrin A. I. The C-domain consensus -PG-, -NVNCT- motif," *Biopolymers*, Vol. 63, pg. 358 (2002)