

Allemann, J.A., Y. Xia, R.E. Morris, A.P. Wilkinson, H. Eckert, J.S. Speck, C.G. Levi, F.F. Lange, and S.A. Anderson, "Crystallization behavior of Li_{1-5x}Ta_{1+x}O₃ glasses synthesized from liquid precursors", *J. Mater. Res.*, Vol. 11, pg. 2376 (1996)

Auerbach, S.M., L.M. Bull, N.J. Henson, H.I. Metiu and A.K. Cheetham, "Behavior of benzene in Na-X and Na-Y; a comparative study by ²H NMR and molecular mechanics," *J. Phys. Chem.*, Vol. 100, pg. 5923 (1996)

Balmer, M.L., N. Das, H. Eckert, and F.F. Lange, "²⁷Al NMR of Zr_{1-x}Al_xO_{(2-x)/2} solid solutions," *J. Am. Ceram. Soc.*, Vol. 79, pg. 321 (1996)

Belcher, A.M., X.C. Wu, R.J. Christensen, P.K. Hansma, G.D. Stucky and D.E. Morse, "Control of crystal phase switching and orientation by soluble mollusc-shell proteins." *Nature*, Vol. 381, pg. 56 (1996)

Belcher, A.M., C. Zaremba, Q. Huo, C.C. Landry, S.H. Tolbert, A. Firouzi, M. Janicke, P.K. Hansma, D.E. Morse, B.F. Chmelka, S. Schacht, I.G. Voigt-Martin, F. Schüth, and G. D. Stucky, "The Organic/Inorganic Interface And Materials Synthesis In The Nano- To Macroscale Continuum, " in *Proc. 40th Robert A. Welch Foundation Conference on Chemical Research "Chemistry on the Nanometer Scale"* (October 1996)

Beltz, G.E., J.R. Rice, C.F. Shih and L. Xia, "A self-consistent model for cleavage in the presence of plastic flow," *Acta Metall. Mater.*, Vol. 44, pg. 3943 (1996)

Brown, C.M., L. Cristofolini, K. Kordatos, K. Prassides, C. Bellavia, R. González, M. Keshavarz-K., F. Wudl, A.K. Cheetham, J.P. Zhang, W. Andreoni, A. Curioni, A.N. Fitch, and P. Pattison, "On the Crystal Structure of Azafullerene (C₅₉N)₂," *Chem. Materials*, Vol. 8, pg. 2548 (1996)

Campbell, S.E., G. Luengo, V.I. Srdanov, F. Wudl, J.N. Israelachvili, "Very low viscosity at the solid-liquid interface induced by adsorbed C₆₀ monolayers," *Nature*, Vol. 382, pg. 520 (1996)

Cao, Y., G. Yu, A.J. Heeger and C.Y. Yang, "Efficient, fast response light-emitting electrochemical cell: Electroluminescent and solid electrolyte polymers with interpenetrating network morphology," *Appl. Phys. Lett.*, Vol. 68, pg. 3218 (1996)

Chavez, P., W. Ducker, J. Israelachvili and K. Maxwell, "Adsorption of dipolar (zwitterionic) surfactants to dipolar surfaces," *Langmuir*, Vol. 12, pg. 4111 (1996)

Cheetham, A.K., C.N.R. Rao and T. Vogt, "Magnetic structure and giant-magnetoresistance of ferromagnetic La_{1-Delta}-Mn_{1-Delta}-O₃ - an example of double-exchange striction", *J. Solid State Chem.*, Vol. 126, pg. 337 (1996)

Dammann, B., H.C. Fogedby, J.H. Ipsen, C. Jeppesen, K. Jørgensen, O.G. Mouritsen, J. Risbo, M.C. Sabra, M.M. Sperotto, and M.J. Zuckermann, "Computer Simulation of the Thermodynamic and Conformational Properties of Liposomes", in *Nonmedical Applications of Liposomes*, Y. Barenholz and D. Lasic, eds., CRC Press, Inc., Boca Raton, Florida (1996)

Foster, C., W. Pompe, A.C. Daykin, J.S. Speck, "Relative coherency strain and phase transformation history in epitaxial ferroelectric thin films," *J. Appl. Phys.*, Vol. 79, pg. 1405 (1996)

Gabriel, J.-C., C. Sanchez and P. Davidson, "Observation of nematic liquid-crystal textures in aqueous gels of smectite clays", *J. Phys. Chem.*, Vol. 100, pg. 11139 (1996)

Gabriel, J.-C., N.B. Larsen, M. Larsen, N. Harrit, J.S. Pedersen, K. Schaumburg, and K. Bechgaard, "Ordering of the disk-like 2,3,6,7,10,11-hexakis(hexylthio)triphenylene in solution and at a liquid-solid interface", *Langmuir*, Vol. 12, pg. 1690 (1996)

Gilhøj H., C. Jeppesen, and O.G. Mouritsen, "Effects of Vacancies on Overshooting in Nonequilibrium Ordering Processes", *Phys. Rev. E*, Vol. 53, 5491 (1996)

Gilhøj, H., M. Laradji, B. Dammann, C. Jeppesen, O.G. Mouritsen, S. Toxværd, and M.J. Zuckermann, "Effect of Vacancies and Surfactants on the Dynamics of Ordering Processes in Multi-component Systems", *Mathematics and Computers in Simulation* 40, 319 (1996)

Gundakaram, R., A. Arulraj, P. V. Vanitha, C. N. R. Rao, N. Gayathri, A. K. Raychaudhuri, and A. K. Cheetham, "Effect of Substitution of Cr³⁺ in Place of Mn³⁺ in Rare-Earth Manganates on the Magnetism and Magnetoresistance: Role of Superexchange Interaction and Lattice Distortion in LnMn(1-x)Cr(x)O(3)", *J Solid State Chem.*, Vol. 127, pg. 354 (1996)

Hare, J.P., W.K. Hsu, H.W. Kroto, A. Lappas. K. Prassides, M. Terrones and D.R.M. Walton, "Nanoscale encapsulation of molybdenum carbide in carbon clusters," *Chem. Mater.*, Vol. 8, pg. 6 (1996)

Henson, N.J., A.K. Cheetham and J.D. Gale, "Computational studies of aluminium phosphate polymorphs," *Chemistry of Materials*, Vol. 8, pg. 664 (1996)

Heying, B., X.H. Wu, S. Keller, Y. Li, D. Kapolnek, B. Keller, S.P. DenBaars, and J.S. Speck, "The role of threading dislocation structure on the x-ray diffraction peak widths in epitaxial GaN films", *Appl. Phys. Lett.*, Vol. 68, pg. 643 (1996)

Hu Y. and E.F. Mattheys, "The effect of salts on the rheological characteristics of shear-induced micellar structures in a drag-reducing cationic surfactant solution," *Rheologica Acta*, Vol. 35, pg. 470 (1996)

Idziak, S.H.J., I. Koltover, J. N. Israelachvili, and C. R. Safinya, "Structure in a confined smectic liquid crystal with competing surface and sample elasticities", *Phys. Rev. Lett.*, Vol. 76, pg. 1477 (1996)

Idziak, S.H.J., I. Koltover, P. Davidson, M. Ruths, J. N. Israelachvili, and C.R. Safinya, "Structure under confinement in a smectic-A and a lyotropic surfactant hexagonal phase", *Physica B*, Vol. 221, pg. 289 (1996)

Jeppesen, C., and K. Kremer, "Single Chain Collapse as a First Order Transition: Model for PEO in Water", *Eur. Phys. Lett.* Vol. 34, pg. 563 (1996)

Koltover, I., S.H.J. Idziak, P. Davidson, Y. Li, C.R. Safinya, M. Ruths, S. Steinberg, and J.N. Israelachvili, "Alignment of complex fluids under confinement and flow", *J. Physique II (France)*, Vol. 6, pg. 893 (1996)

Lange, F.F., "Chemical Solution Routes to Single-Crystal Thin Films", *Science*, Vol. 273, pg. 903 (1996)

Lange, F.F., A.D. Polli, and C.G. Levi, "Chemical solution synthesis of PbTiO₃-PbZrO₃ compositions: Metastable phase selection and epitaxial films", in Proc., ElectroCeramics V, International Conf. on Electronic Ceramics & Applications, Vol. 1, pg 5, Ed., by J. L. Baptista, J.A., Labrincha and P.M. Vilarinho, Printed by Dept of Ceramic Eng., University of Aveiro, Portugal (1996)

Langjahr, P.A., T. Wagner, M. Ruehle and F.F. Lange, "Epitaxial growth And structure of cubic and pseudocubic perovskite films on perovskite substrates", *Mat. Res. Soc. Symp. Proc.*, Epitaxial Oxide Thin Films II. Symposium. (Epitaxial Oxide Thin Film II. Symposium, Boston, MA, USA 26-30 Nov. 1995). Edited by: Speck, J.S.; Fork, D.K.; Wolf, R.M.; Shiosaki, T. Pittsburgh, PA, USA, Vol. 401, pg 109 (1996)

Levy, J., V. Nikitin, J. M. Kikkawa, A. Cohen, D. D. Awschalom, N. Samarth, R. Garcia, "Spatiotemporal near-field spin microscopy in patterned magnetic heterostructures," *Physical Review Letters*, Vol. 76, pg. 1948 (1996)

Lipkin, D.M., D.R. Clarke and G. E. Beltz, "A strain-gradient model of cleavage fracture in plastically deforming materials," *Acta Metall. Mater.*, Vol. 44, pg. 4051 (1996)

Lipkin, D.M., D.R. Clarke and G. E. Beltz, "Decohesion failure of thin films in the presence of dislocation plasticity," in Thin Films: Stresses and Mechanical Properties VI, (edited by W. W. Gerberich, H. Gao, J.-E. Sundgren, and S. P. Baker) Materials Research Society Proceedings, Pittsburgh (1996)

Lipkin, D.M. and G.E. Beltz, "A simple elastic cell model of cleavage fracture in the presence of dislocation plasticity", *Acta Materialia*, Vol. 44, pg. 1287 (1996)

Liu, A.J. and Fredrickson, G.H., "Phase Separation Kinetics of Rod/Coil Mixtures," *Macromolecules*, 29, 8000 (1996)

Moravetski, V., J.-R. Hill, U. Eichler, A.K. Cheetham, and J. Sauer, "Si-29 NMR Chemical Shifts of Silicate Species: Ab Initio Study of Environment and Structure Effects," *J. Am. Chem. Soc.*, Vol. 118, pg. 13015 (1996)

Morey, M., A. Davidson and G. Stucky, "A new step toward transition metal incorporation in cubic mesoporous materials: Preparation and characterization of Ti-MCM-48," *Microporous Materials*, Vol. 6, pg. 99 (1996)

Morey, M., A. Davidson, H. Eckert and G. Stucky, "Pseudo-tetrahedral O₃/2V=O centers immobilized on the walls of a mesoporous, cubic MCM-48 support: Preparation, characterization and reactivity toward water as investigated by ⁵¹V NMR and UV-Vis. spectroscopy," *Chem. Mater.*, Vol. 8, pg. 486 (1996)

Morris, R. E., S. J. Weigel, P. Norby, J. C. Hanson, and A. K. Cheetham, "In Situ Single-Crystal X-ray Diffraction Study of Crystallization Kinetics in Clathrasil Dodecasil-3C," *J. Synchrotron Rad.*, Vol. 3, pg. 301 (1996)

Natarajan, S., J-C. Gabriel & A.K. Cheetham, "Synthesis and structure of a three-dimensional nanoporous aluminophosphate (NH₂(CH₂)₃NH₃)+[Al₁₃P₃O₁₄]-·H₂O, containing AlO₅ and AlO₆ polyhedra", *J. Chem. Soc, Chem. Comm.*, Vol. 12, pg.1415 (1996)

Prassides, K, M. Keshavarz-K., E. Beer, C. Bellavia, R. González, Y. Murata, F. Wudl, A. K. Cheetham, and J. P. Zhang, "Spheres of Spheres of Azafullerene in the Solid State," *Chem. Mater.*, Vol. 8, pg. 2405 (1996)

Proksh, R., R. Lai, P. K. Hansma, D.E. Morse and G.D. Stucky, "Imaging the internal and external pore structure of membranes in fluid: Tapping mode scanning ion conductance microscopy." *Biophys. J.*, Vol. 71, pg. 2155 (1996)

Radmacher, M., M. Fritz, C. M. Kacher, J. P. Cleveland, P. K. Hansma, "Measuring the viscoelastic properties of human platelets with the atomic force microscope," *Biophys. J.*, Vol. 70, pg. 556 (1996)

Rao, C. N. R., and A. K. Cheetham, "Giant Magnetoresistance in Transition Metal Oxides," *Science* , Vol. 272, pg. 369 (1996)

Rao, C. N. R., A. K. Cheetham, and R. Mahesh, " Giant Magnetoresistance and Related Properties of Rare-Earth Manganates and Other Oxide Systems," *Chem. Mater.*, Vol. 8, pg. 2421 (1996)

Rao, C.N.R., T. Vogt and A.K. Cheetham, "Charge ordering and related effects in Nd_{1-x} Ca_x MnO₃", *Phys. Rev. B*, Vol. 54, pg. 15303 (1996)

Romanov, A.E., W. Pompe, J.S. Speck, "Theory of Microstructure and mechanics of the ...a(1)/a(2)/a(3)/a(4)... domain pattern in epitaxial ferroelectric and ferroelastic films", *J. Appl. Phys.*, Vol. 79, pg. 4037 (1996)

Romanov, A.E., W. Pompe, G.E. Beltz, and J.S. Speck, "An approach to threading dislocation 'reaction kinetics'", *Appl. Phys. Lett.*, Vol. 69, pg. 3342 (1996)

Romanov, A.E., W. Pompe, G.E. Beltz, and J.S. Speck, "Modeling of threading dislocation density reduction in heteroepitaxial layers: I. Geometry and Crystallography", *Phys. Stat. Sol. B*, Vol. 198, pg. 599 (1996)

Seifert, A., A. Fojta, J.S. Speck, and F.F. Lange, "Microstructural instability in single-crystal thin films", *J. Mater. Res.*, Vol. 11, pg. 1470 (1996)

Shi, J., S. Gider, K. Babcock, and D.D. Awschalom, "Magnetic clusters in molecular beams, metals, and semiconductors," Invited Article for Special issue of *Science*, Vol. 271, pg. 5251 (1996)

Shi, J., J. M. Kikkawa, D. D. Awschalom, G. Medeiros-Ribeiro, P. M. Petroff and K. Babcock, "Structural and magnetic properties of Mn-implanted GaAs semiconductors," *J. Appl. Phys.*, Vol. 79, pg. 5296 (1996)

Sink, K., S. Keller, B.P. Keller, D.I. Babic, A.L. Holmes, D. Kapolnek, X.H. Wu, J.S. Speck, U.K. Mishra, S.P. DenBaars, and J.E. Bowers, "Cleaved GaN facets by wafer fusion of GaN to InP," *Appl. Phys. Lett.*, Vol. 68, pg. 2147 (1996)

Smith, L., L. Marchese, A.K. Cheetham, J.M. Thomas, P.A. Wright, and J. Chen, "On the nature of water bound to a solid acid catalyst," *Science*, Vol. 271, pg. 799 (1996)

Smith, L., A.K. Cheetham, L. Marchese, J.M. Thomas, P.A. Wright, J. Chen and E. Gianotti, "A quantitative description of the active sites in the dehydrated acid catalyst, H-SAPO-34, for the conversion of methanol to olefins", *Catalysis Letters*, Vol. 41, pg. 13 (1996)

Speck, J.S., M.A. Brewer, G. Beltz, A.E. Romanov, and W. Pompe, "Development of scaling laws for the reduction of threading dislocation densities in homogeneous epitaxial buffer layers," *J. Appl. Phys.*, Vol. 80, pg. 3808 (1996)

Srinivasan, N. J.-C. P. Gabriel and A.K. Cheetham, "Synthesis and structure of a three-dimensional open-framework aluminophosphate [NH₂(CH₂)₃NH₃] + {Al₁₃P₃O₁₄} -H₂O, containing AlO₅ and AlO₆ polyhedra," *J. Chemical Society, Chemical Communications*, pg. 1415 (1996)

Steinberg, M., and K. Schofield, "The Controlling Chemistry in Flame Generated Surface Deposition of Na₂SO₄ and the Effects of Chlorine," Twenty -Sixth Symposium (International) on Combustion/The Combustion Institute, pg. 1835 (1996)

Subramanian, G., D.R.M. Williams and P.A. Pincus, "Interaction between finite-sized particles and end grafted polymers", *Macromolecules*, Vol. 29, pg. 4045 (1996)

Terrones, M., A.M. Benito, C. Manteca-Diego, W.K. Hsu, O.I. Osman, J.P. Hare, D.G.. Ried, H. Terrones, A.K. Cheetham, K. Prassides, H.W. Kroto and D.R.M. Walton, "Pyrolytically grown BxC_xyN_x nanomaterials - nanofibres and nanotubes", *Chem. Phys. Lett.*, Vol. 257, pg. 576 (1996)

Terrones, M., W.K. Hsu, H. Terrones, J.P. Zhang, S. Ramos, J.P. Hare, R. Castillo, K. Prassides, A.K. Cheetham, H.W. Kroto and D.R.M. Walton, "Metal particle catalyzed production of nanoscale BN structures", *Chem. Phys. Lett.*, Vol. 259, pg. 568 (1996)

Thomson, N.H., S. Kasas, B. Smith, H.G. Hansma and P.K. Hansma, "Reversible binding of DNA to mica for AFM imaging", *Langmuir*, Vol. 12, pg. 5905-5908 (1996)

Tu, W. C., F. F. Lange and A. G. Evans, "Concept for a damage-tolerant ceramic composite with ``strong'' interfaces," *J. Am. Ceram. Soc.*, Vol. 79, pg. 417 (1996)

Vizcarra-Rendon, A., M. Medina-Noyola, "General theory of tracer-diffusion in colloidal suspensions," *Physica A*, Vol. 234, pg. 271 (1996)

Walters, D.A., J.P. Cleveland, H.H. Thomson, P.K. Hansma, M.A. Wendman, G. Gurley and V. Elings, "Short cantilevers for atomic force microscopy", *Rev. Sci. Instrum.*, Vol. 67, pg. 3583 (1996)

Warriner, H.E., S.H.J. Idziak, N.L. Slack, P. Davidson, and C.R. Safinya, "Lamellar hydrogels: Fluid-membrane based biogels containing polymer-lipids", *Science*, Vol. 271, pg. 969 (1996)

Weigel, S.J., E. Gutierrez Puebla, A. Monge Bravo, N.J. Henson, L.M. Bull, and A.K. Cheetham, "Structure directing effects in zeolite synthesis; a single crystal X-ray diffraction, ^{29}Si MAS NMR, and computational study of the competitive formation of siliceous ferrierite and dodecasil-3C (ZSM-39)", *J. Amer. Chem. Soc.*, Vol. 118, 2427 (1996)

Wu, D. T., and G. H. Fredrickson, "Effect of Architecture in the Surface Segregation of Polymer Blends," *Macromolecules*, Vol. 29, pg. 7919 (1996)

Wu, D. T., G. H. Fredrickson, and J.-P. Carton, "Surface Segregation in Conformationally Asymmetric Polymer Blends: Incompressibility and Boundary Conditions," *J. Chem. Phys.* Vol. 104, pg. 6387 (1996)

Wu, X.H., D. Kapolnek, E.J. Tarsa, B. Heying, S. Keller, B.P. Keller, U.K. Mishra, S.P. DenBaars, and J.S. Speck, "Nucleation layer evolution in metalorganic chemical vapor deposition grown GaN," *Appl. Phys. Lett.*, Vol. 68, pg. 1371 (1996)

Yang, C.Y. and A.J. Heeger, "Morphology of composites of semiconducting polymers mixed with C-60," *Synthetic Metals*, Vol. 83, pg. 85 (1996)

Yatcilla, M.T., K.L. Herrington, L.L. Brasher, S. Chiruvolu and J. Zasadzinski, "Phase behavior of aqueous mixtures of cetyltrimethylammonium bromide and sodium octyl sulfate," *J. of Phys. Chem.*, Vol. 100, pg. 5874 (1996)

Zaremba, C.M., A.M. Belcher, M. Fritz, Y.L. Li, S. Mann, P. K. Hansma, D.E. Morse, J.S. Speck and G.D. Stucky, "Critical transitions in the biofabrication of abalone shells and flat pearls." *Chem. Matls.*, Vol. 8, pg. 679 (1996)

Zhao, L., A. T. Chien, F.F. Lange, and J. S. Speck, "Microstructural Development of BaTiO₃ Powders by Aqueous Methods", *J. Mat. Res.*, Vol. 11, pg. 1325 (1996)