

Current Scientific Projects Participation:

- Development of Metal/Ceramic Nanocomposite Powder and Consolidation to Bulk Nanocomposite Components with Retained Nanostructures, Office of Naval Research, S. Seal, YIP
- *Ab-initio* simulation study of mechanical properties of metal-reinforced ceramics

Most Recent Scientific Publications

- S. Seal, S. C. Kuiry, P. Georgieva and A. Agarwal, "Making Nanocomposite Components: Present Status and Future Challenges", MRS Bulletin, Jan Issue, Vol 29(1) 16-22, 2004
- P. Georgieva, S. C. Kuiry, S. Seal, "Atomic Scale Simulation of Mechanical Properties of Ni-Reinforced Alumina", MRS Proceedings of Mechanical Properties of Nanostructured Materials and Nanocomposites, XXXXX, MRS Fall Meeting, Boston, Dec. 2003
- P. Georgieva, S. C. Kuiry, S. Seal, "A Study of the Electronic Structure of Ni-Reinforced Alumina Composite System", Journal of Chemical Physics, June, 2004, under review

Awards:

- NSF Fellowship for the summer educational program in Northwestern University, Chicago, IL, August, 2003
- USAMC and NSF fellowship for involvement in a workshop in Computational Nanomechanics of Materials, March, 2004
- FL Chapter of AVS, ACS for a presentation "Development of Metal-Ceramic Bulk Nanocomposites with Enhanced Properties and Important Engineering Applications", 2nd place in Materials Science