GARY L. KELLOGG

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Education

Undergraduate:	Penn State University	Physics, B.S.	1971
Graduate:	Penn State University	Physics, PhD	1976

Appointments

Distinguished Member of Technical Staff, Sandia National Laboratories, Oct. 2008 – present

Principal Member of Technical Staff, Sandia National Laboratories, Oct. 1976 – Oct. 2008

Quarter-Time Detailee, DOE Office of Basic Energy Sciences, Division of Materials Science and Engineering, Dec. 2005—Dec. 2006

Acting Manager, Surface Science Department, Sandia National Laboratories, Aug. 1999—Feb. 2000

Publications

1. *Towards Wafer-Size Graphene Layers by Atmospheric Pressure Graphitization of Silicon Carbide*, K.V. Emtsev, A. Bostwick, K. Horn, J. Jobst, G. L. Kellogg, L. Ley, J. L. McChesney, T. Ohta, S. A. Reshanov, J. Röhrl, E. Rotenberg, A. K. Schmid, D. Waldmann, H. B. Weber, and T. Seyller, Nature Materials 8, 203 (2009).
2. *Palladium Diffusion into Bulk Copper via the Cu(100) Surface*, E. Bussmann, J. Sun, K. Pohl and G. L. Kellogg, J. Physics: Condensed Matter 21, 314016 (2009).
3. *How Pb-overlayer islands move fast enough to self-assemble on Pb-Cu surface alloy*s, M. L. Anderson, N. C. Bartelt, P. J. Feibelman, B. S. Swartzentruber, and G. L. Kellogg, Phys Rev. Lett. 98, 096106 (2007).
4. *Origins of Nanoscale Heterogeneity in Ultra-thin Films*, J. B. Hannon, J. Sun, K. Pohl, and G. L. Kellogg Phys. Rev. Lett. 96, 246103 (2006).
5. *Reversible Shape Transition of Pb Islands on Cu(111)*, R. van Gastel, N. C. Bartelt, and G. L. Kellogg, Phys. Rev. Lett. 96, 36106 (2006).
6. *Effects of Elastic Anisotropy on the Periodicity and Orientation of Striped Stress Domain Patterns at Solid Surfaces*, François Léonard, N. C. Bartelt, and G. L. Kellogg, Phys. Rev. B 71, 045416 (2005).
7. *Relationship between Domain-Boundary Free Energy and the Temperature Dependence of Stress-Domain Patterns of Pb on Cu(111)*, R. van Gastel, N. C. Bartelt, P. J. Feibelman, F. Léonard, and G. L. Kellogg, Phys. Rev. B 70, 245413 (2004).
8. *Thermal Motion and Energetics Self-Assembled Domain Structures: Pb on Cu(111)*, R. van Gastel, R. Plass, N. C. Bartelt, and G. L. Kellogg, Phys. Rev. Lett. 91, 055503 (2003).
9. *Nanostructures: Self-assembled Domain Patterns*, R. Plass, J. A. Last, N. C. Bartelt, and G. L. Kellogg, Nature 412, 875 (2001)
10. *Dynamics of the Si(111) Surface Phase Transition*, J. B. Hannon, H. Hibino, N. C. Bartelt, B. S. Swartzentruber, T. Ogino and G. L. Kellogg, Nature 405, 552 (2000).

Collaborators: Louisiana State University: P. Sprunger; IBM Yorktown Heights: J. Hannon; University of New Hampshire: K. Pohl; University of Twente: B. Poelsema

Graduate Advisor: Prof. T. T. Tsong, Pennsylvania State University

Thesis Advisor and Postgraduate – Scholar Sponsor: Current post-doc: Ivan Ermanoski; Past post-docs (current location): Ezra Bussmann (Centre Interdisciplinaire de Nanoscience de Marseille, France); Raoul Van Gastel (University of Twente, The Netherlands); Rich Plass (Sandia – NM); Jim Hannon (IBM Yorktown Heights); PhD. students graduated: co-advisor of Meredith Anderson, Carnegie Mellon University (now an MTS at Sandia - NM)

Synergistic Activities

Awards:

Sustained Outstanding Research in Condensed Matter Physics in Solid State Physics, DOE, BES, Division of Materials Sciences (11/98)

Fellow of the American Vacuum Society (11/97)

Fellow of the American Physical Society (11/92)

Outstanding Scientific Accomplishment in Solid State Physics, DOE, BES, Division of Materials Sciences (11/91)

Outstanding Teaching Award for Graduate Teaching Assistants, Penn State University (05/75).

Advisory Board: Progress in Surface Science, 1996-2000

Publications: 4 book chapters, over 110 journal articles.

Professional Society Offices: Chairman-Surface Science Division of AVS 1998-99; General Committee–Physical Electronics Conference, 2000-2003; Vice President-International Field Emission Society 1992-93; Chairman - New Mexico Chapter of the American Vacuum Society, 1982-1983.

Meetings Organized: Chairman – Third International LEEM/PEEM Workshop, Albuquerque, NM May 14-17, 2002; Chairman – 61st Annual Physical Electronics Conference, Taos, NM June 11-13, 2001; Program Chairman - Surface Science Division, American Vacuum Society 44th National Symposium, San Jose, CA October 20-24, 1997; Chairman - DOE Workshop on Surface Diffusion and the Growth of Materials, Santa Fe, NM June 1-3, 1992; Chairman - 37th International Field Emission Symposium, Albuquerque, NM, July 29 - August 3, 1990; Chairman - 17th Annual Symposium of the NM Chapter of the American Vacuum Society, Albuquerque, NM, April 28-30,1981.