Suneel Kodambaka

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Appointments

Assistant Professor, UCLA (2007-present)
Post-doctoral Researcher, IBM T.J. Watson (2005-2007)
Post-doctoral Researcher, UIUC (2002-2004)

Education

University of Illinois, Urbana-Champaign, IL (1997-2002)
Ph.D. in Materials Science and Engineering (September 2002)
Thesis: "In Situ High-Temperature Scanning Tunneling Microscopy Studies of Early Stage Growth Kinetics During TiN Epitaxy."
Advisor: Prof. Joseph E. Greene.

Southern Illinois University, Carbondale, IL (1995-1996)
M.S. in Mechanical Engineering (December 1996)
Thesis: "Synthesis of WC Powder Using Novel Tungsten Trioxide Precursors."
Advisor: Prof. Rasit Koc

Indian Institute of Technology, Madras, India (1991-1995)
Bachelor of Technology in Metallurgical Engineering (May 1995).

Professional activities

- Session chair, MRS Fall meeting, Boston, MA (2006).
- Topical session organizer, Int'l Conf. Metallurgical Coatings and Thin Films, San Diego, CA (2004 & 2005).
- Organizer, American Vacuum Society Prairie Chapter meeting, Urbana, IL (2004).
- Session Chair, Midwest Solid State Conference, Urbana, IL (2002).
- Referee for APL, IEEE transactions on nanotechnology, J. Crystal Growth, JVST-A, PRB, PRE, PRL, and Thin Solid Films.
- Member of the MRS (2001-2002, 2004, 2006-present); MSA (2006-present); APS (2007); AVS (1999, 2002-2004); ACerS (1996).

Awards and honors

- Ross J. Martin award, **outstanding doctoral thesis**, College of Engineering, UIUC (2003).
- **Gold medal**, outstanding graduate research, MRS spring meeting, San Francisco, CA (2001).
- Mavis Memorial Fund Scholarship, College of Engineering, UIUC (2001).
- Ivan Racheff award, **outstanding graduate research**, Dept. Materials Science, UIUC (2000).

Invited Reviews

1. (**Invited book chapter**) J. Bareno**, S. Kodambaka**, S.V. Khare, I. Petrov, and J.E. Greene, "In-Situ High-Temperature STM and LEEM Studies of TiN surface dynamics," *in press.*
2. (**Invited review**) **S. Kodambaka**, S.V. Khare, I. Petrov, and J.E. Greene, "Two-dimensional island dynamics: Role of step energy anisotropy," ***Surf. Sci. Rep.*** 60, 55 (2006).

Refereed Publications

1. C. Lang, **S. Kodambaka**, F.M. Ross, and D.J.H. Cockayne, "Real time observation of GeSi/Si(001) island shrinkage due to surface alloying during Si capping," ***Phys. Rev. Lett.*** 97, 226104 (2006).
2. **S. Kodambaka**, J.B. Hannon, R.M. Tromp, and F.M. Ross, "Control of Si nanowire growth by oxygen," ***Nano Lett.*** 6, 1292 (2006).
3. **S. Kodambaka**, J. Tersoff, M.C. Reuter, and F.M. Ross, "Diameter-independent kinetics in the vapor-liquid-solid growth of Si nanowires," ***Phys. Rev. Lett.*** 96, 096105 (2006).
   Virtual Journal of Nanoscale Science & Technology 13, issue 11 (2006).
4. J.B. Hannon, **S. Kodambaka**, F.M. Ross, and R.M. Tromp, "The influence of the surface migration of gold on the growth of silicon nanowires," ***Nature*** 440, 69 (2006).
5. S.-J. Tang, **S. Kodambaka**, W. Swiech, I. Petrov, C.P. Flynn, and T.-C. Chiang, "Sublimation of atomic layers from a Chromium surface," ***Phys. Rev. Lett.*** 96, 126106 (2006).
6. S.K.R. Patil, S.V. Khare, B.R. Tuttle, J. Bording, **S. Kodambaka**, "Mechanical stability of possible structures of PtN investigated using first-principles calculations," ***Phys. Rev. B*** 73, 104118 (2006).
7. J. Bareño, **S. Kodambaka**, S.V. Khare, W. Święch, I. Petrov, and J.E. Greene, "Orientation-dependent mobilities from analyses of two-dimensional TiN(111) island decay kinetics," ***Thin Solid Films*** 510, 339 (2006).
8. **S. Kodambaka**, S.V. Khare, J. Bareño, W. Święch, I. Petrov, and J.E. Greene, "Nucleation and growth kinetics of spiral steps on TiN(111): An in situ LEEM study," ***J. Appl. Phys.*** 98, 1 (2005).
9. F. Watanabe, **S. Kodambaka**, W. Święch, J.E. Greene, and D.G. Cahill, "LEEM study of island decay on Si(110)," ***Surf. Sci.*** 572, 425 (2004).

10. **S. Kodambaka**, Navot Israeli, J. Bareño, W. Święch, K. Ohmori, I. Petrov, and J.E. Greene, "Low-energy electron microscopy studies of interlayer mass transport kinetics on TiN(111)," ***Surf. Sci***. 560, 53 (2004).

11. **S. Kodambaka**, S.V. Khare, W. Święch, K. Ohmori, I. Petrov, and J.E. Greene, "Dislocation-driven surface dynamics on solids," ***Nature*** 429, 49 (2004).
    Also reported in ***Materials Today*** *July/Aug'04.*

12. (**Invited paper**) **S. Kodambaka**, S.V. Khare, V. Petrova, A. Vailionis, I. Petrov, and J.E. Greene, "Determination of absolute orientation-dependent TiN(001) and TiN(111) step energies," ***Vacuum*** 74, 345 (2004).

    Featured article in the ***Omicron Pico*** 7, 8 (2003): "In situ high-temperature STM studies of surface dynamics on atomically smooth TiN(001) and TiN(111)."

13. T.-Y. Lee, **S. Kodambaka**, J.G. Wen, R. Twesten, I. Petrov, and J.E. Greene, "Nanostructural evolution of $Ti_{0.8}Ce_{0.2}N$ layers grown on oxidized Si(001) by magnetron sputter deposition as a function of low energy, high flux ion irradiation," ***Appl. Phys. Lett.*** 84, 2796 (2004).

14. **S. Kodambaka**, David L. Chopp, I. Petrov, and J.E. Greene, "Coalescence kinetics of two-dimensional TiN islands on atomically-smooth TiN(001) and TiN(111) terraces,"
    Surf. Sci. Lett. 540, L611 (2003).

15. D. Gall, **S. Kodambaka**, M.A. Wall, I. Petrov, and J.E. Greene, "Pathways of atomistic processes on TiN(001) and (111) surfaces during film growth: an *ab initio* study,"
    J. Appl. Phys. 93, 9086 (2003).

16. **S. Kodambaka**, V. Petrova, A. Vailionis, I. Petrov, and J.E. Greene, "In situ high-temperature STM studies of 2D TiN island coarsening kinetics on TiN(001)," ***Surf. Sci.*** 526, 85 (2003).

17. **S. Kodambaka**, S.V. Khare, V. Petrova, D.D. Johnson, I. Petrov, and J.E. Greene, "Absolute orientation-dependent anisotropic TiN(111) island step energies and stiffnesses from shape fluctuation analyses," ***Phys. Rev. B*** 67, 035409 (2003).

18. S.V. Khare, **S. Kodambaka**, D.D. Johnson, I. Petrov, and J.E. Greene, "Determining absolute orientation-dependent step energies: A general theory for the Wulff-construction and for anisotropic 2D island shape fluctuations," ***Surf. Sci.*** 522, 75 (2003).

19. **S. Kodambaka**, V. Petrova, S.V. Khare, A. Rockett, I. Petrov, and J.E. Greene, "Size-dependent detachment-limited decay kinetics of 2D TiN islands on TiN(111),"
    Phys. Rev. Lett. 89, 176102 (2002).

20. **S. Kodambaka**, S.V. Khare, V. Petrova, A. Vailionis, I. Petrov, and J.E. Greene, "Absolute orientation-dependent TiN(001) step energies from 2D equilibrium island shape and coarsening measurements on epitaxial TiN(001) layers," ***Surf. Sci.*** 513, 468 (2002).

21. **S. Kodambaka**, V. Petrova, S.V. Khare, D.D. Johnson, I. Petrov, and J.E. Greene, "Absolute TiN(111) step energies from analysis of anisotropic island shape fluctuations,"
    Phys. Rev. Lett. 88, 146101 (2002).

22. (**Invited paper**) F. H. Baumann, D. L. Chopp, T. Díaz de la Rubia, G. H. Gilmer, J. E. Greene, H. Huang, **S. Kodambaka**, P. O'Sullivan, and I. Petrov, "Multi-scale modeling of thin film deposition: Applications to Si device processing," ***MRS Bull.*** 26, 182 (2001).

23. M.J. Williamson, D.N. Dunn, R. Hull, **S. Kodambaka**, and J.E. Greene, "Evolution of nano-scale texture in ultra-thin films," ***Appl. Phys. Lett.*** 78, 2223 (2001).
24. (**Invited paper**) **S. Kodambaka**, V. Petrova, A. Vailionis, P. Desjardins, D.G. Cahill, I. Petrov, and J.E. Greene, "TiN(001) and TiN(111) island coarsening kinetics: In-situ scanning tunneling microscopy studies," ***Thin Solid Films*** 392, 164 (2001).
25. N. Finnegan, R.T. Hasch, D. Gall, **S. Kodambaka**, J.E. Greene, and I. Petrov, "A comparison of Auger electron spectra from stoichiometric epitaxial TiN(001) after (1) UHV cleaving and (2) after Ar^+ sputter etching," ***Surf. Sci. Spectra*** 7, 93 (2000).
26. (**Invited paper**) **S. Kodambaka**, V. Petrova, A. Vailionis, P. Desjardins, D.G. Cahill, I. Petrov, and J.E. Greene, "In-situ high-temperature STM studies of 2D island decay kinetics on atomically smooth TiN(001)," ***Surf. Rev. Lett.*** 7, 589 (2000).
27. R. Koc and **S.K. Kodambaka,** "Tungsten carbide synthesis from novel precursors," ***J. Eur. Ceram. Soc***. 20, 1859 (2000).
28. R. Koc and **S.K. Kodambaka,** "New process for producing submicron Tungsten monocarbide powders," ***J. Mater. Sci. Lett.*** 18, 1469 (1999).

Invited talks and seminars (primary author)

1. **S. Kodambaka**, J. Tersoff, M.C. Reuter, J.B. Hannon, R.M. Tromp, and F.M. Ross,"Kinetic measurements during the vapor-liquid-solid growth of Si and Ge nanowires," *APS March meeting,* Denver, CO, March 2007.
2. **S. Kodambaka**, J. Tersoff, J.B. Hannon, M.C. Reuter, R.M. Tromp, and F.M. Ross,"In situ electron microscopy studies of Si and Ge nanowire growth" *Northrop,* Los Angeles, CA, February 2007.
3. **S. Kodambaka**, F.M. Ross, J.B. Hannon, R.M. Tromp, M.C. Reuter and J. Tersoff, "In situ electron microscopy as a tool for imaging the growth of nanostructures," *MRS Fall meeting,* Boston, MA, November 2006.
4. **S. Kodambaka**, "Growth and stability of nanostructures: In situ studies" *University of California,* Los Angeles, CA, November 2006.
5. **S. Kodambaka**, J.B. Hannon, R.M. Tromp, M.C. Reuter, J. Tersoff, and F.M. Ross, "Si and Ge nanowire growth mechanisms observed using in situ microscopy," *Microscopy & Microanalysis,* Chicago, IL, August 2006.
6. **S. Kodambaka**, "Si and Ge nanowire growth kinetics," *Engineering Physics Dept., Ecole Polytechnique de Montréal*, Montréal, Canada, July 2006.
7. **S. Kodambaka**, "Two-dimensional island dynamics: Role of step energy anisotropy," *Conf. Crystal Growth and Epitaxy,* Fallen Leaf Lake, CA, June 2006.
8. **S. Kodambaka**, F.M. Ross, J.B. Hannon, R.M. Tromp, J. Tersoff, and M.C. Reuter, "Si nanowire growth: An in-situ TEM study," *University of California,* Los Angeles, CA, April 2006.

9. **S. Kodambaka**, "In situ microscopy: key to understanding growth and stability of nanostructures," *Université de Montréal*, Montréal, Canada, April 2006.
10. **S. Kodambaka**, F.M. Ross, J.B. Hannon, R.M. Tromp, J. Tersoff, and M.C. Reuter, "Si nanowire growth: An in-situ TEM study," *University of Toledo,* Toledo, OH, April 2006.
11. **S. Kodambaka**, F.M. Ross, J.B. Hannon, R.M. Tromp, J. Tersoff, and M.C. Reuter, "In-situ TEM studies of Si nanowire growth kinetics," *Euro. Phys. Soc.,* Dresden, Germany, March 2006.
12. **S. Kodambaka**, F.M. Ross, J.B. Hannon, R.M. Tromp, J. Tersoff, and M.C. Reuter, "Si nanowire growth: An In-situ TEM study," *Leiden University,* Leiden, The Netherlands, March 2006.
13. **S. Kodambaka**, F.M. Ross, J.B. Hannon, R.M. Tromp, J. Tersoff, and M.C. Reuter, "In-situ TEM studies of Si and Ge nanowire growth kinetics," *Forschungszentrum Jülich*, Germany, March 2006.
14. **S. Kodambaka**, F.M. Ross, J.B. Hannon, R.M. Tromp, J. Tersoff, and M.C. Reuter, "Si nanowire growth: An in-situ TEM study," *RWTH Aachen,* Aachen, Germany, March 2006.
15. **S. Kodambaka**, "In situ microscopy: Key to understanding growth and stability of nanostructures," *University of Louisville*, Louisville, KY, March 2006.
16. **S. Kodambaka**, F.M. Ross, J.B. Hannon, R.M. Tromp, J. Tersoff, and M.C. Reuter, "Si nanowire growth: An In-situ TEM Study," *Rutgers University*, New Brunswick, NJ, February 2006.
17. **S. Kodambaka**, F.M. Ross, J.B. Hannon, R.M. Tromp, J. Tersoff, and M.C. Reuter, "In-situ TEM studies of Si nanowire growth kinetics," *AICHE annual meeting,* Cincinnati, OH, Nov. 2005.
18. **S. Kodambaka**, "Growth and stability of nanostructures: In situ studies," *Engineering Sciences and Applied Mathematics Dept., Northwestern University,* Chicago, IL, Sept. 2005.
19. **S. Kodambaka**, "Studies of 2D island dynamics and Si nanowire growth kinetics," *T.J. Watson Research Center, IBM,* Yorktown Heights, NY, May 2005.
20. **S. Kodambaka**, "Nanoscale morphological evolution kinetics on TiN surfaces: An in-situ STM and LEEM study," *Materials Science and Engineering Dept., California Institute of Technology,* Pasadena, CA, April 2005.
21. **S. Kodambaka**, "Nanoscale morphological evolution kinetics on TiN surfaces: An in-situ STM and LEEM study," *Chemical Engineering and Material Science Dept., University of Minnesota*, Minneapolis, MN, April 2005.
22. **S. Kodambaka**, "Nanoscale morphological evolution kinetics on TiN surfaces: An in-situ STM and LEEM study," *Engineering Physics Dept., Ecole Polytechnique de Montréal*, Montréal, Canada, March 2005.
23. **S. Kodambaka**, "Nanoscale morphological evolution kinetics on TiN surfaces: An in-situ STM and LEEM study," *Divison of Engineering and Applied Sciences, Harvard University*, Cambridge, MA, February 2005.

24. **S. Kodambaka**, "Nanoscale morphological evolution kinetics on TiN surfaces: An in-situ STM and LEEM study," *Materials Science and Engineering Dept., University of Pennsylvania*, Philadelphia, PA, December 2004.
25. **S. Kodambaka**, S.V. Khare, V. Petrova, W. Swiech, J. Bareno, K. Ohmori, I. Petrov, and J.E. Greene, "Nanoscale morphological evolution kinetics on TiN surfaces: An in-situ STM and LEEM study," *Advanced Research Laboratory, Hitachi*, Saitama, Japan, August 2004.
26. **S. Kodambaka**, S.V. Khare, V. Petrova, W. Swiech, J. Bareno, K. Ohmori, I. Petrov, and J.E. Greene, "Nanoscale morphological evolution kinetics on TiN surfaces: An in-situ STM and LEEM study," *Tohoku University*, Sendai, Japan, August 2004.
27. **S. Kodambaka**, "Atomic-level understanding of the ion-beam-assisted growth of ceramic nanostructures," *National Institute for Materials Science (NIMS)*, Tsukuba, Japan, August 2004.
28. **S. Kodambaka**, "Nanoscale morphological evolution kinetics on TiN surfaces: An in-situ STM and LEEM study," *IBM TJ Watson Research Center,* Yorktown Heights, NY, July 2004.
29. **S. Kodambaka**, S.V. Khare, V. Petrova, W. Swiech, J. Bareno, K. Ohmori, I. Petrov, and J.E. Greene, "Quantitative determination of nanoscale morphological evolution kinetics on TiN surfaces studied using in-situ STM and LEEM," *Dept. Mechanical Engineering and Energy Processes, Southern Illinois University*, Carbondale, IL, February 2004.
30. **S. Kodambaka**, "Two-dimensional TiN(001) and TiN(111) island dynamics: An in-situ STM and LEEM study," *Sandia National Laboratories*, Livermore, CA, January 2004.
31. **S. Kodambaka**, V. Petrova, S.V. Khare, A. Vailionis, David L. Chopp, I. Petrov, and J.E. Greene, "In-situ high-temperature STM studies of surface dynamics on epitaxial TiN(001) and TiN(111) layers," *Int'l Conf. on Metallurgical Coatings and Thin Films (ICMCTF)*, San Diego, CA, April 2003.
32. **S. Kodambaka**, V. Petrova, S.V. Khare, A. Vailionis, David L. Chopp, I. Petrov, and J.E. Greene, "In-situ high-temperature STM studies of surface dynamics on epitaxial TiN(001) and TiN(111) layers," *Center for Microanalysis of Materials, Frederick Seitz Materials Research Laboratory*, Urbana, IL, March 2003.
33. **S. Kodambaka**, V. Petrova, W. Swiech, A. Vailionis, P. Desjardins, D.G. Cahill, I. Petrov, and J.E. Greene, "In-situ high-temperature STM studies of early stage growth kinetics of TiN epitaxy," *C.E.A.-Saclay*, France, June 2001.
34. **S. Kodambaka**, V. Petrova, W. Swiech, A. Vailionis, P. Desjardins, D.G. Cahill, I. Petrov, and J.E. Greene, "In-situ high-temperature STM studies of early stage growth kinetics of TiN epitaxy," *Forschungszentrum Jülich*, Germany, June 2001.
35. **S. Kodambaka**, V. Petrova, A. Vailionis, I. Petrov, and J.E. Greene, "In-situ high-temperature STM studies of early stage growth kinetics during TiN epitaxy," *Bell Laboratories*, Murray Hill, NJ, June 2000.

Conference presentations (primary author)

1. **S. Kodambaka**, J. Tersoff, K.B. Reuter, and F.M. Ross, "Vapor-liquid-solid growth of Ge nanowires at temperatures below the eutectic temperature," *MRS Spring Meeting,* San Francisco, CA, April 2007.
2. **S. Kodambaka**, J. Tersoff, J.B. Hannon, M.C. Reuter, R.M. Tromp, and F.M. Ross, "Si and Ge nanowire growth kinetics: An in situ TEM Study," *Conf. Crystal Growth and Epitaxy,* Fallen Leaf Lake, CA, June 2006.
3. **S. Kodambaka**, J.B. Hannon, R.M. Tromp, and F.M. Ross, "In-situ TEM studies of Si nanowire growth kinetics," *Gordon Research Conference,* South Hadley, MA, June 2005.
4. **S. Kodambaka**, S.V. Khare, J. Bareno, W. Święch, I. Petrov, and J.E. Greene, "Dislocation-driven surface dynamics on solids," *AVS*, Anaheim, CA, November 2004.
5. **S. Kodambaka**, S.V. Khare, W. Święch, K. Ohmori, I. Petrov, and J.E. Greene, "In situ high-temperature LEEM studies of spiral dislocation dynamics on TiN(111) terraces," *AVS*, Baltimore, MD, November 2003.
6. **S. Kodambaka**, V. Petrova, S.V. Khare, David L. Chopp, I. Petrov, and J.E. Greene, "In situ high-temperature STM studies of 2D TiN island dynamics on epitaxial (001) and (111) TiN terraces," *Surface Analysis an AVS topical conference*, Urbana, IL, June 2003.
7. **S. Kodambaka**, S.V. Khare, V. Petrova, A. Vailionis, I. Petrov, and J.E. Greene, "Absolute orientation-dependent TiN(001) step energies from 2D equilibrium island shape and coarsening measurements on epitaxial TiN(001) layers," *AVS*, Denver, CO, November 2002.
8. **S. Kodambaka**, V. Petrova, S.V. Khare, A. Rockett, I. Petrov, and J.E. Greene, "Size-dependent detachment-limited decay kinetics of 2D TiN islands on TiN(111)," *50th Midwest Solid State Conference*, Urbana, IL, October 2002.
9. **S. Kodambaka**, V. Petrova, S.V. Khare, D. Gall, A. Rockett, I. Petrov, and J.E. Greene, "Size-dependent detachment-limited decay kinetics of 2D TiN islands on TiN(111)," *AVS Prairie chapter meeting*, Chicago, IL, October 2002.
10. **S. Kodambaka**, V. Petrova, A. Vailionis, P. Desjardins, D.G. Cahill, I. Petrov, and J.E. Greene, "In-situ high-temperature STM studies of early stage growth kinetics of TiN(001)/TiN(001)," *EMRS*, Strasbourg, France, June 2001.
11. (MRS award talk) **S. Kodambaka**, V. Petrova, A. Vailionis, P. Desjardins, D.G. Cahill, I. Petrov, and J.E. Greene, "In-situ high-temperature STM studies of early stage growth kinetics of TiN(001)/TiN(001)," *MRS Spring meeting*, San Francisco, April 2001.
12. **S. Kodambaka**, D. Chopp, P. Desjardins, A. Vailionis, I. Petrov, and J.E. Greene, "TiN(001) epitaxy: An in situ temperature-dependent STM and Level-set modeling study," *AVS*, Seattle, WA, October 1999.
13. **S.K. Kodambaka** and R. Koc, "Synthesis of submicron Tungsten monocarbide powders using a novel Tungsten trioxide precursors," *ACerS Meeting on Composites, Advanced Ceramics, Materials and Structures*, Cocoa Beach, FL, January 1997.
14. **S.K. Kodambaka,** J.S. Folmer, R. Koc, "Carbothermal synthesis of submicron TiC powders using Carbon-coated Titania precursor," *ACerS 98th Annual Meeting*, Indianapolis, IN, April 1996.

Other presentations (10 most recent, 60+ total)

1. (**Plenary Lecture**) J.E. Greene, **S. Kodambaka**, S.V. Khare, I. Petrov, W. Swiech, V. Petrova, J. Bareño, "Transition-Metal Nitrides and Related Compounds for Energy-Related Applications: Nanostructure Design at the Atomic Scale," *3rd Int'l Conf. on Thin Films and Surface Coatings*, Singapore, December 2006.
2. (**Plenary Lecture**) J.E. Greene, L. Hultman, I. Petrov, J. Bareño, W. Swiech, V. Petrova, S. **Kodambaka**, and S.V. Khare, "The Role of Interfacial Atomic Structure in Nanotechnology: Designing Superhard Nanolaminate and Nanocomposite Thin Films," *26th Mexican National Congress on Surface Science and Thin Films*, Puebla, Mexico, September 2006.
3. (**Plenary Lecture**) J.E. Greene, **S. Kodambaka**, S.V. Khare, I. Petrov, W. Swiech, V. Petrova, J. Bareño, "Effects of small changes in reactive gas partial pressure on film growth kinetics, properties, and nanostructure: Transititon metal nitrides," *IUVSTA Workshop on the Effect of Trace Elements on The Nucleation and Growth of Thin Films*, Budapest, Hungary, September 2006.
4. (**Invited Talk**) J. Tersoff, **S. Kodambaka**, and F.M. Ross, "Kinetic factors controlling VLS growth of Si and Ge nanowires," *MRS Fall meeting,* Boston, MA, November 2006.
5. (**Invited Talk**) F.M. Ross, **S. Kodambaka**, J. Tersoff, M.C. Reuter, J.B. Hannon, R.M. Tromp, K.A. Dick, and L. Samuelson, "Structural control during the growth of Si, Ge and hybrid nanowires," *Epitaxial Growth and Fundamental Properties of Semiconductor Nanostructures,* Bonassola, Italy, September 2006.
6. C. Lang, D.J.H. Cockayne, D. Nguyen-Manh, **S. Kodambaka**, and F.M. Ross, "Shape transformation and alloying in Stranski-Krastanow island growth," *Epitaxial Growth and Fundamental Properties of Semiconductor Nanostructures,* Bonassola, Italy, September 2006.
7. (**Invited Talk**) F.M. Ross, **S. Kodambaka**, J.B. Hannon, R.M. Tromp, M.C. Reuter, and J. Tersoff, "Developing novel nanostructures for microelectronics with the help of in situ TEM," *16th Int.l Microscopy Congress,* Sapporo, Japan, September 2006.
8. C. Lang, D.J.H. Cockayne, **S. Kodambaka**, and F.M. Ross, "Real-time observation of the reverse shape transformation in GeSi/Si(001)," *16th Int.l Microscopy Congress*, Sapporo, Japan, September 2006.
9. K. Ohmori, W. Swiech, **S. Kodambaka**, J. Bareño, H. Hwang, S.V. Khare, V. Petrova, J.E. Greene, and I. Petrov, "Facet formation and Ge nanowire growth on Si(214) surface," *24th European Conference on Surface Science,* Paris, France, September 2006.
10. W. Swiech, S.-J. Tang, **S. Kodambaka**, S.V. Khare, K. Ohmori, J. Bareño, C.P. Flynn, I. Petrov, J.E. Greene, and T.-C. Chiang, "Dislocation-mediated spiral step dynamics on TiN(111) and Cr(001) at elevated temperatures," *24th European Conference on Surface Science,* Paris, France, September 2006.