

## JENNIFER A. HOLLINGSWORTH

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### Education

Grinnell College, IA	BA	1988-1992	Chemistry
Washington University, MO	PhD	1994-1999	Inorganic Chemistry
Los Alamos National Laboratory	PD	1999-2001	Nanomaterials Chemistry

### Appointments

2008-present	Technical Staff Member, Scientist 4, Joint Position: Chemistry Division and the Center for Integrated Nanotechnologies, LANL
2006-2008	Technical Staff Member, Joint Position: Chemistry Division and the Center for Integrated Nanotechnologies, LANL
2001-2006	Technical Staff Member, Chemistry Division, LANL
1999 - 2001	Director's Funded Postdoctoral Fellow, LANL

### Honors

2009 LANL Associate Directorate for Chemistry, Life, and Earth Sciences Achievement Award for Program Development

2008 LANL Achievement Award for Outstanding Nanomaterials Hazard Assessment Team

2006, 2001 LANL Award for Outstanding Scientific Achievement

2005 LANL Women's Career Development Mentoring Award

2002 Postdoctoral Small Team Award

1999-2001 Director's Funded Postdoctoral Fellow

1997 MRS Graduate Student Award Finalist

1996-1999 NASA Graduate Student Researchers Program Center Fellow

1992-1993 Indiana University Graduate Student Fellow in Geochemistry

1992-present *Phi Beta Kappa*, Grinnell College

1988-1992 National Merit Scholar

### Publications

1. Wooten, A.; Werder, D.; Williams, D.; Casson, J.; Hollingsworth, J. A. *J. Am. Chem. Soc.* 2009, 131, 16177–16188: "Solution-Liquid-Solid Growth of Ternary Cu-In-Se Semiconductor Nanowires from Multiple- and Single-Source Precursors." CINT supported.

2. García-Santamara, F.; Chen, Y.; Vela, J.; Schaller, R. D.; Hollingsworth, J. A., and Klimov, V. I. *Nano Lett.*, 2009, 9, 3482: “Suppressed Auger Recombination in “Giant” Nanocrystals Boosts Optical Gain Performance.” CINT supported.
3. Bussian, D. B.; Malko, A. V.; Htoon, H.; Chen, Y. F.; Hollingsworth, J. A.; Klimov, V. I. *J. Phys. Chem. C* 2009, 113(6), 2241-2246: “Quantum Optics with Nanocrystal Quantum Dots in Solution: Quantitative Study of Clustering.” CINT supported.
4. Vela, J.; Prall, B.; Rastogi, P.; Werder, D.; Casson, J.; Williams, D.; Klimov, V. I., and Hollingsworth, J. A. *J. Phys. Chem C* 2008, 112, 20246: “Sensitization and Protection of Lanthanide Ion Emission in In<sub>2</sub>O<sub>3</sub>:Eu Nanocrystal Quantum Dots.” CINT supported.
5. Chen, Y.; Vela, J.; Htoon, H.; Casson, J. L.; Werder, D. J.; Bussian, D. A.; Klimov, V. I., and Hollingsworth, J. A. *J. Am. Chem. Soc.* 2008, 130, 5026: ““Giant” multishell CdSe nanocrystal quantum dots with suppressed blinking.” CINT supported.
6. Pietryga, J. M.; Werder, D. J.; Williams, D. J.; Casson, J. L.; Schaller, R. D.; Klimov, V. I., and Hollingsworth, J. A. *J. Am. Chem. Soc.* 2008, 130, 4879: “Utilizing the lability of lead selenide to produce heterostructured nanocrystals with bright, stable infrared emission.” CINT supported.
7. Jeong, S., Achermann, M., Nanda, J., Ivanov, S., Klimov, V. I., and Hollingsworth, J. A. *J. Am. Chem. Soc.* 2005, 127, 10126: “Effect of the thiol-thiolate equilibrium on the photophysical properties of aqueous CdSe/ZnS nanocrystal quantum dots.”
8. Pietryga, J. M., Schaller, R. D., Werder, D., Stewart, M. H., Klimov, V. I., and J. A. Hollingsworth. *J. Am. Chem. Soc.* 2004, 126: 11752: “Pushing the band gap envelope: Mid-infrared emitting colloidal PbSe quantum dots.”
9. Htoon, H., Hollingsworth, J. A., Dickerson, R., and V. I. Klimov. *Phys. Rev. Lett.* 2003, 91: 227401: “Effect of zero-to one-dimensional transformation on multiparticle Auger recombination in semiconductor quantum rods.”
10. Hollingsworth, J. A., Poojary, D. M., A. Clearfield, and Buhro, W. E.. *J. Am. Chem. Soc.* 2000 122, 3562: “Catalyzed growth of a metastable InS crystal structure as colloidal crystals.”

**Collaborators:** LANL: J. Gao, R. Iyer, S. Iyer, S. Ivanov, Q. Jia, J. Jiang, K. John, V. Klimov, N. Mack, G. Montano, T. Picraux, A. Shreve, B. Swanson, H.-L. Wang, P. Welch. External: M. Achermann, A. de Bettencourt-Dias (Un. Nevada, Reno), T. Brown (Un. St. Andrews, UK), W. E. Buhro (Wash. U., St. Louis), I. Brenner (SNL), J. De Yoreo (LBNL), R. Georgiadis (Boston Un.), A. Gin (SNL), N. Halas (Rice Un.), S. Jeong (Korea Inst. Mach. & Mater.), W. Lawrence (Rad. Monit. Devices), L. Lauhon (NW Un.) D. Lidke (UNM), T. S. Luk (SNL), Y. Ruan (IPAS, Un. Adelaide, Australia), E. Serrano (NMSU), D. Sheehan (Un. San Diego). J. Sullivan (SNL),

**Graduate and Postdoctoral Advisors:** Postdoctoral Advisor: V. I. Klimov (Los Alamos National Laboratory, Los Alamos, NM); PhD Thesis Advisor: W. E. Buhro (Washington University, St. Louis, MO)

**Thesis Advisor and Postgraduate – Scholar Sponsor:** S. Jeong (PhD: U. Mich, Ann Arbor; currently: staff, KIMM, S. Korea), J. Pietryga (PD; currently LANL TSM), N. Smith (PD; currently LANL TSM), Y. Chen (PD; currently staff scientist Life Technologies, Inc.), J. Vela (PD; currently Assistant Professor Iowa St. Univ.), A. Wooten (PD; currently staff scientist Global Systems Technologies, Inc.), Y. Ghosh (PD; LANL), A. Steinbruck (PD; LANL), K. Palaniappan (PD; LANL), A. Dennis (PD; LANL). Graduate Students: 1; Postdocs: 10