

Keng-hui Lin

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Education

University of Pennsylvania, Philadelphia, Pennsylvania 1996-2002
PhD. In Physics (received in June 2002), Thesis advisor: Arjun G. Yodh
Thesis: Entropically Driven Colloidal Crystallization and Interaction

National Taiwan University, Taipei, Taiwan 1991-1995
Bachelor of Science in Physics

Experiences

Academia Sinica, Taipei, Taiwan 2004-Present
Assistant Research Fellow, Institute of Physics

Harvard University, Cambridge, Massachusetts 2004-2005
Visiting Scholar, Dept. of Physics and Dana-Farber Cancer Institute

Harvard University, Cambridge, Massachusetts 2002-2004
Postdoc Research Associate, Dept. of Chemistry and Chemical Biology

Academia Sinica, Taipei, Taiwan 1995-1996
Research Assistant, Institute of Atomic and Molecular Sciences

Awards and Honors

- Recipient of Eli Burstein Award(2002).
- Recipient of Robert E. Davis Travel award from AWIS-PHL(1999).
- Scholarship of National Gifted Student in Physical Sciences (1991-1995).
- Scholarship of Dr. C. C. Samuel Ting (1992-1995).
- Skipped last year in high school and entered NTU Physics with honor (1991).

Publications

Entropically Driven Colloidal Crystallization on Patterned Surfaces
Keng-hui Lin, John C. Crocker, Vikram Prasad, Andrew Schofield, D.A. Weitz, T.C. Lubensky and A.G. Yodh, *Phys. Rev. Lett.*, **85**, 1770 (2000)

Colloidal Interaction in Suspensions of Rods
Keng-hui Lin, John C. Crocker, Ana C. Zeri, and A. G. Yodh, *Phys. Rev. Lett.*, **87**, 083001(2001).

Entropically Driven Self-Assembly and Interaction in Suspension
A.G. Yodh, Keng-hui Lin, J. C. Crocker, A. D. Dinsmore, R. Verma, and P. D. Kaplan, *Phil. Trans. R. Soc. Lond. A*, **359**, 921 (2001).

Electro-optic Response and Switchable Bragg Diffraction for Liquid Crystals in Colloid-Templated Materials

P. Mach, P. Wiltzius, M. Megens, D.A. Weitz, Keng-hui Lin, T.C. Lubensky, and A.G. Yodh, *Phys. Rev. E*, **65**, 031720 (2002).

Switchable Bragg Diffraction from Liquid Crystal in Colloid-Templated Structures

P. Mach, P. Wiltzius, M. Megens, D.A. Weitz, Keng-hui Lin, T.C. Lubensky, and A.G. Yodh, *Europhys. Lett.* **58**, 679 (2002).

Entropic interactions in suspensions of semiflexible rods: Short-range effects of flexibility

A. W. C. Lau, Keng-hui Lin and A. G. Yodh, *Phys. Rev. E* **66**, 020401(R) (2002).

Template-Directed Convective Assembly of 3D Face-Centered-Cubic Colloidal Crystals

J. Zhang, A. Alsayed, Keng-hui Lin, S. Sanyal, F. Zhang, W-J. Pao, V. S. K. Balagurusamy, P. A. Heiney, and A. G. Yodh, *App. Phys. Lett.* **81**, 3176 (2002).

Field-induced structures in miscible ferrofluid suspensions with and without latex spheres

M.F. Islam, K-H. Lin, D. Lacoste, T.C. Lubensky, and A.G. Yodh *Phys. Rev. E*, **67**, 021402 (2003).

High-performance nanowire electronics and photonics on glass and plastic substrates

M.C. McAlpine, R.S. Friedman, S. Jin, K.H. Lin, W.U. Wang, C.M. Lieber, *Nanoletters*, **3**, 1531(2003).

Label-free detection of small-molecule-protein interactions by using nanowire nanosensors

Wayne U Wang, C. Chen, K.H. Lin, Y. Fang, C.M. Lieber, *PNAS* **102**, 3208 (2005).

Invited Talks

APS March Meeting, Seattle, WA	2001
Symposium on the Interface Between Biology and Materials Science, UPenn	2000
Symposium on the Physics of Soft Materials, UPenn	1999

Research Activities

U. of Pennsylvania, organizer of Soft Matter Talks	2002-2001
National Science Foundation, Force Transduction in Biology workshop	2000
Marine Biological Laboratory, Optical Microscopy workshop	2000
U. of Delaware, Colloidal and Interface Sciences workshop	1999
Materials Science Summer Institute, Complex Fluid Material program	1998

References

Prof. Arjun G. Yodh, yodh@dept.physics.upenn.edu
Dept. of Physics and Astronomy, University of Pennsylvania, Philadelphia, PA 19104

Prof. David A. Weitz, weitz@deas.harvard.edu
Dept. of Physics, Harvard University, Cambridge, MA 02138

Prof. John C. Crocker, jcrocker@seas.upenn.edu
Dept. of Chemical Engineering, University of Pennsylvania, Philadelphia, PA 19104