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### EDUCATION

Ph. D. in Physics, Pennsylvania State University, 2008

M. S. in Physics, Peking University, 2003

B. S. in Physics, Lanzhou University, 2000

### EMPLOYMENT

*Institute of Physics, Chinese Academy of Sciences*  
Professor (2012 - present)

*University of Pennsylvania*

Director of Center for Advanced Imaging and Micromanipulation (2009 - 2012)

Postdoctoral Researcher (2008 - 2012)

### REFEREED PUBLICATIONS

1. M. C. Yang, R. Liu, M. Ripollb and K. Chen, “A microscale thermophoretic turbine driven by external diffusive heat flux”, *Nanoscale*, **6** 13550 (2014)
2. P. J. Yunker, **K. Chen**, M. D. Gratale, M. A. Lohr, T. Still, and A. G. Yodh, “Physics in ordered and disordered colloidal matter composed of poly(N-isopropylacrylamide) microgel particles” *Report on Progress in Physics*, *77* 056601 (2014).
3. T. Still, C. P. Goodrich, **K. Chen**, P. J. Yunker, S. Schoenholz, A. J. Liu, and A. G. Yodh, “Phonon dispersion and elastic moduli of two-dimensional disordered colloidal packings of soft particles with frictional interactions ”, *Physical Review E* **89**, 012301 (2014).
4. **K. Chen**, T. Still, S. Schoenholz, K.B. Aptowicz, M. Schindler, A.C. Maggs, A.J. Liu, , and A.G. Yodh, “Phonons in two-dimensional soft colloidal crystals”, *Physical Review E* **88**, 88.022315 (2013)
5. P.J. Yunker, Z.X. Zhang, M. Gratale, **K. Chen**, and A.G. Yodh, “Relationship between neighbor number and vibrational spectra in disordered colloidal clusters with attractive interactions”, *J. Chem. Phys.* **138**, 12A525, (2013).

6. T. Still, **K. Chen**, A.M. Alsayed, K.B. Aptowicz, and A.G. Yodh, “Synthesis of micrometer-size poly(N-isopropylacrylamide) microgel particles with homogeneous crosslinker density and diameter control”, *Journal of Colloid and Interface Sciences* **405**, 96 (2013).
7. M.D. Gratale, P.J. Yunker, **K. Chen**, T. Still, K.B. Aptowicz, and A.G. Yodh, “Phonons in two-dimensional colloidal crystals with bond-strength disorder”, *Physical Review E* **87**, 052301 (2013).
8. **K. Chen**, M. L. Manning, P. J. Yunker, W. G. Ellenbroek, Z. Zhang, Andrea J. Liu, and A. G. Yodh “Measurement of correlations between low-frequency vibrational modes and particle rearrangements in quasi-two-dimensional colloidal glasses”, *Physical Review Letters*, **107**, 108301 (2011)
9. Peter J. Yunker, **Ke Chen**, Zexin Zhang, and A. G. Yodh, “Phonon Spectra, Nearest Neighbors, and Mechanical Stability of Disordered Colloidal Clusters with Attractive Interactions”, *Physical Review Letters*, **106**, 225503 (2011)
10. Peter J. Yunker, **Ke Chen**, Zexin Zhang, Wouter G. Ellenbroek, Andrea J. Liu, and A. G. Yodh, “Rotational and translational phonon modes in glasses composed of ellipsoidal particles”, *Physical Review E*, **83**, 011403 (2011)
11. **Ke Chen**, Wouter G. Ellenbroek, Zexin Zhang, Daniel T. N. Chen, Peter J. Yunker, Silke Henkes, Carolina Brito, Olivier Dauchot, Wim van Saarloos, Andrea J. Liu, and A. G. Yodh, “Low-Frequency Vibrations of Soft Colloidal Glasses”, *Physical Review Letters*, **105**, 025501 (2010)
12. D. T. N. Chen, **K. Chen**, L. A. Hough, M. F. Islam and A. G. Yodh, “Rheology of Carbon Nanotube Networks During Gelation”, *Macromolecules*, **43**, 2048–2053 (2010)
13. **K. Chen**, A. Harris, J. Draskovic, and P. Schiffer, “Granular fragility under thermal cycles”, *Granular Matter* **11**, 237–242 (2009).
14. **K. Chen**, M. B. Stone, R. Barry, M. Lohr, W. McConville, K. Klein, B. L. Sheu, A. J. Morss, T. Scheidemantel, and P. Schiffer, “Flux through a hole from a shaken granular medium” , *Physical Review E* **74**, 011306 (2006).
15. **K. Chen**, J. Cole, C. Conger, J. Draskovic, M. Lohr, K. Klein, T. Scheidemantel and P. Schiffer, “Packing grains by thermal cycling”, *Nature* **442**, 257 (2006).
16. Z. L. Li, X. D. Hu, **K. Chen**, R. J. Nie, X. H. Luo, X. P. Zhang, T. J. Yu, B. Zhang, S. Chen, Z. J. Yang, Z. Z. Chen, G. Y. Zhang, “Preparation of GaN-based cross-sectional TEM specimens by laser lift-off”, *Micron* **36**, 281 (2005).

17. Z. L. Li, X. D. Hu, P. Zhang, **K. Chen**, R. J. Nie, G. Y. Zhang, “Thin film GaN-based membranes by laser lift-off and cleaved InGaN LD facet” (in Chinese), *Laser Technology* **28**, 29 (2004).

18. **K. Chen**, P. Ma, R. J. Nie, T. Yang, F. X. Xie, L. Y. Liu, S. Z. Wang, Y. D. Dai and F. Wang, “Growth and superconductivity characteristics of MgB<sub>2</sub> thin films”, *Superconductor Science and Technology* **15**, 1721 (2002).