

Publication List

(Dr. Yan Lu, HZB)

Researcher ID: M-2034-2014

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List of Publications

(Corresponding author is marked with *)

1. H. Jia, D. Schmitz, A. Ott, A. Pich, Y. Lu*, “Cyclodextrin Modified Microgels as “Nanoreactor” for the Generation of Au Nanoparticles with Enhanced Catalytic Activity”, *J. Mater. Chem. A* **2015**, 3, 6187-6195.
2. S. Mei, J. Cao, Y. Lu*, “Controllable assembly of two types of metal nanoparticles onto block copolymer nanospheres with ordered spatial distribution”, *J. Mater. Chem. A* **2015**, 3, 3382 - 3389.
3. J. Cao, S. Mei, A. Ott, J. He, M. Ballauff, Y. Lu*, “In Situ Synthesis of Catalytic Active Au Nanoparticles onto Gibbsite–Polydopamine Core–Shell Nanoplates”, *Langmuir* **2015**, 31 (34), 9483–9491.
4. N. P. B. Tan, H. Lee, L. Chen, K. Ho, Y. Lu*, M. Ballauff, P. Li, “Facile synthesis of gold/polymer nanocomposite particles using polymeric amine-based particles as dual reductants and templates”, *Polymer* **2015**, 76, 271-279.
5. S. Angioletti-Uberti, Y. Lu, M. Ballauff, J. Dzubiella, “Theory of Solvation-Controlled Reactions in Stimuli-Responsive Nanoreactors”, *J. Phys. Chem. C* **2015**, 119 (27), 15723–15730.
6. S. Gu, Y. Lu, J. Kaiser, M. Albrecht, M. Ballauff, “Kinetic analysis of the reduction of 4-nitrophenol catalyzed by Au/Pd nanoalloys immobilized in spherical polyelectrolyte brushes”, *Phys. Chem. Chem. Phys.* **2015**, 17, 28137-28143.
7. F. Chu, N. Heptner, Y. Lu, M. Siebenbuerger, P. Lindner, J. Dzubiella, M. Ballauff, “Colloidal Plastic Crystals in a Shear Field”, *Langmuir* **2015**, 31, 5992–6000.
8. N. Heptner, F. Chu, Y. Lu, P. Lindner, M. Ballauff, J. Dzubiella, “Nonequilibrium structure of colloidal dumbbells under oscillatory shear”, *Phys. Rev. E* **2015**, DOI: 10.1103/PhysRevE.00.002300.
9. K. Henzler, A. Heilemann, J. Kneer, P. Guttmann, H. Jia, E. Bartsch, Y. Lu, S. Palzer, “Investigation of reactions between trace gases and functional CuO nanospheres and octahedrons using NEXAFS - TXM imaging”, *Sci. Rep.* **2015**, DOI: 10.1038/srep17729.
10. S. Gu, J. Kaiser, G. Marzun, A. Ott, Y. Lu, M. Ballauff, A. Zaccone, S. Barcikowski, P. Wagener, “Ligand-free Gold Nanoparticles as a Reference Material for Kinetic Modelling of Catalytic Reduction of 4-Nitrophenol”, *Cata. Lett.* **2015**, 145, 1105-1112.

11. A. Ott, S. Ring, G. Yin, W. Calvet, B. Stannowski, Y. Lu*, R. Schlatmann, M. Ballauff, “Efficient Plasmonic Scattering of Colloidal Silver Particles Through Annealing-Induced Changes”, *Nanotechnology* **2014**, 25(45): 455706.
12. F. Chu, F. Polzer, N. Severin, Y. Lu*, A. Ott, J. P. Rabe, M. Ballauff, “Thermosensitive Hollow Janus Dumbbells”, *Colloid Polym. Sci.* **2014**, 292, 1785-1793.
13. S. Gu, S. Wunder, Y. Lu, M. Ballauff, R. Fenger, K. Rademann, B. Jaquet, A. Zaccone, “Kinetic Analysis of the Catalytic Reduction of 4-Nitrophenol by Metallic Nanoparticles”, *J. Phys. Chem. C* **2014**, 118, 18618–18625.
14. L. Su, C. Wang, F. Polzer, Y. Lu, G. Chen, M. Jiang, “Glyco-Inside Micelles and Vesicles directed by Protection-Deprotection Chemistry”, *ACS Macro Letters* **2014**, 3, 534–539.
15. H. Arslan, A. Pfaff, Y. Lu, P. Stepanek, A. H. E. Müller, “Stimuli-Responsive Spherical Brushes Based on D-Galactopyranose and 2-(Dimethylamino)ethyl Methacrylate”, *Macromol. Bioscience* **2014**, 14, 81-91.
16. Y. Lu*, N. Welsch, J. Dzubiella, M. Ballauff, “Core-shell microgels as nanoreactors”, *Progr. Colloid Polym. Sci.* **2013**, 140, 113-130.
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Book chapters:

1. Hybrid Nanomaterials: Synthesis, Characterization, and Applications, ed. by B.P.S. Chauhan, published by John Wiley & Sons, Hoboken, New Jersey, **2011**.

Yan Lu, Matthias Ballauff, Chapter 1: Hybrids from Polymer Colloids and Metallic Nanoparticles: A Novel Type of “Green” Catalyst.

2. Hydrogel Micro and Nanoparticles, 1st Edition, ed. by L. A. Lyon and M. J. Serpe, published by Wiley-VCH Verlag GmbH & Co. KGaA **2012**.

Yan Lu, Matthias Ballauff, Chapter 2: Thermosensitive Core–Shell Microgels: Basic Concepts and Applications.

3. Polymer Science: A Comprehensive Reference, ed. By K. Matyjaszewski and M. Möller, published by Amsterdam: Elsevier BV.

Yan Lu, Matthias Ballauff, Alexander Wittemann, 6.07 Spherical Polymer Brushes. Vol 6, pp. 265–292.

Patents:

1. A. Karpov, H. Hibst, A. Terrenoire, A. Weiss, M. Ballauff, Y. Mei, Y. Lu, R. Kempe, S. Proch, J. Villanueva, Technique of cross-coupling reactions with metallic nanoparticles as catalyst, WO 2008/074702 A1.
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