

Publication List

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Researcher ID: M-2034-2014 (<http://www.researcherid.com/rid/M-2034-2014>)

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Number of publications: 107

Invited review articles: 8 **Book chapters:** 3 **Patents:** 2

h-index: 39 (from Google scholar, June 2017)

Number of citations: 6681

(Corresponding author is marked with *)

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1. S. Mei, C. J. Jafta, I. Lauermann, Q. Ran, M. Kärge, M. Ballauff, Y. Lu*, “Porous Ti₄O₇ Particles with Interconnected-Pores Structure as High-Efficiency Polysulfide Mediator for Lithium-Sulfur Batteries”, *Adv. Funct. Mater.* **2017**, 27, 1701176.
2. H. Jia, J. Cao, Y. Lu*, “Design and fabrication of functional hybrid materials for catalytic applications”, *Current Opinion in Green and Sustainable Chemistry* **2017**, 4, 16-22.
3. G. Yang, H. Ding, Z. Kochovski, R. Hu, Y. Lu, Y. Ma, G. Chen, M. Jiang, “Highly ordered self-assembly of native proteins into 1D, 2D and 3D structures modulated by a tether length of inducing ligands”, *Angew. Chem. Int. Ed.* **2017**, 56, 10691-10695.
4. J. Sun, Z. Kochovski, W. Zhang, H. Kirmse, Y. Lu, M. Antonietti, J. Yuan, “A General Synthetic Route Towards Highly Dispersed Metal Clusters Enabled by Poly(ionic liquid)s”, *J. Am. Chem. Soc.* **2017**, 139 (26), 8971-8976.
5. Y. Yang, S. Risse, S. Mei, C. Jafta, Y. Lu, C. Stöcklein, N. Kardjilov, I. Manke, J. Gong, Z. Kochovski, M. Ballauff, “Binder-Free Carbon Monolith Cathode Material for Operando Investigation of High Performance Lithium-Sulfur Batteries with X-Ray Radiography”, *Energy Storage Materials* **2017**, 9, 96-104.
6. W. Wang, L. Li, K. Henzler, Y. Lu, J. Wang, H. Han, Y. Tian, Y. Wang, Z. Zhou, G. Lotze, T. Narayanan, M. Ballauff, X. Guo, “Protein Immobilization onto Cationic Spherical Polyelectrolyte Brushes Studied by Small Angle X-Ray Scattering”, *Biomacromolecules* **2017**, 18 (5), 1574–1581.
7. H. Gao, H. Jia, B. Bierer, J. Wöllenstein, Y. Lu, S. Palzer, “Scalable gas sensors fabrication to integrate metal oxide nanoparticles with well-defined shape and size”, *Sensors and Actuators B: Chemical* **2017**, 249, 639-646.

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8. Y. Lu, Matthias Ballauff, “Spherical Polyelectrolyte Brushes as Nanoreactors for the Generation of Metallic and Oxidic Nanoparticles: Synthesis and Application in Catalysis”, *Prog. Polym. Sci.* **2016**, 59, 86-104.
9. H. Jia, R. Roa, S. Angioletti-Uberti, K. Henzler, A. Ott, X. Lin, J. Möser, Z. Kochovski, A. Schnegg, J. Dzubiella, M. Ballauff, Y. Lu*, “Thermosensitive Cu₂O-PNIPAM core-shell nanoreactors with tunable photocatalytic activity”, *J. Mater. Chem. A* **2016**, 4, 9677-9684.
10. J. Cao, C. Jafta, J. Gong, Q. Ran, X. Lin, R. Félix, R. Wilks, M. Bär, J. Yuan, M. Ballauff, Y. Lu*, “Synthesis of Dispersible Mesoporous Nitrogen-doped Hollow Carbon Nanoplates with Uniform Hexagonal Morphologies for Supercapacitors”, *ACS Appl. Mater. Interfaces* **2016**, 8 (43), 29628–29636.
11. W. Zhang, Z. Kochovski, Y. Lu, B. V. K. J. Schmidt, M. Antonietti, J. Yuan, “Internal Morphology-Controllable Self-Assembly in Poly(Ionic Liquid) Nanoparticles”, *ACS Nano* **2016**, 10, 7731-7737.
12. Y. Fu, Y. Lu, F. Polzer, M. Lux-Steiner, C. Fischer, “In-situ synthesis of stabilizer-free gold nanocrystals with controllable shape on substrates as highly active catalysts for multiple use”, *Adv. Synth. Catal.* **2016**, 358 (9), 1440-1448.
13. G. Yang, X. Zhang, Z. Kochovski, Y. Zhang, B. Dai, F. Sakai, L. Jiang, Y. Lu, M. Ballauff, X. Li, C. Liu, G. Chen, M. Jiang, “Precise and reversible protein microtubule-like structure with helicity driven by dual supramolecular interactions”, *J. Am. Chem. Soc.* **2016**, 138 (6), 1932–1937.
14. A. P. H. Gelissen, A. Oppermann, T. Caumanns, P. Hebbeker, S. K. Turnhoff, R. Tiwari, S. Eisold, U. Simon, Y. Lu, J. Mayer, W. Richtering, A. Walther, D. Wöll, “3D structures of responsive nano compartmentalized microgels”, *Nano Lett.* **2016**, 16, 7295–7301.
15. G. Yang, Z. Kochovski, Z. Ji, Y. Lu, G. Chen, M. Jiang, “Three-dimensional protein assembly directed by orthogonal non-covalent interactions”, *Chem. Comm.* **2016**, 52, 9687-9690.

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16. 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.
17. 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.

18. 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.
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23. 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.
24. 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**, *5*, 17729.
25. S. Gu, J. Kaiser, G. Marzun, A. Ott, Y. Lu, M. Ballauff, A. Zacccone, 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.

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27. 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.
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Brushes Based on D-Galactopyranose and 2-(Dimethylamino)ethyl Methacrylate”, *Macromol. Bioscience* **2014**, 14, 81-91.

31. 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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