





J. Wang

The author presented on this page has recently published his 10th article in Angewandte Chemie in the last 10 years:
"Expanding the Genetic Code for Photoclick Chemistry in E. coli, Mammalian Cells, and A. thaliana": F. Li, H. Zhang, Y. Sun, Y. Pan, J. Zhou, J. Wang, Angew. Chem. 2013, 125, 9882–9886; Angew. Chem. Int. Ed. 2013, 52, 9700–9704.



The work of J. Wang has been featured on the inside cover of Angewandte Chemie:

"Significant Expansion of the Fluorescent Protein Chromophore through the Genetic Incorporation of a Metal-Chelating Unnatural Amino Acid": X. Liu, J. Li, C. Hu, Q. Zhou, W. Zhang, M. Hu, J. Zhou, J. Wang, Angew. Chem. 2013, 125, 4905–4909; Angew. Chem. Int. Ed. 2013, 52, 4805–4809.

Jiangyun Wang

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Position: Professor, Institute of Biophysics, Chinese Academy of Sciences

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Education: 1998 BS, University of Science and Technology of China

2003 PhD with Kenneth S. Suslick, University of Illinois at Urbana-Champaign

2003–2008 Postdoctoral fellow with Peter G. Schultz, The Scripps Research Institute, La Jolla Non-coding RNA, heme proteins, fluorescent proteins, photochemistry, bioinorganic chemistry

Research: Non-coding RNA, heme proteins, fluorescent **Hobbies**: Swimming, poker, writing and reading novels

I would have liked to have discovered ... olfactory receptors.

My favorite food is ... shrimp.

The most exciting thing about my research is ... the frequent discovery that my students are geniuses.

If I could go back in time and do any experiment, it would be ... the discovery of oxygen.

The downside of my job is ... writing grant proposals.

The most amusing chemistry adventure in my career was ... the discovery that olfactory receptors are metal-binding.

My top three films of all time are ... The Devil's Advocate, Life of Pi, Avatar.

My favorite piece of music is ... the *Nocturnes* by Frédéric Chopin.

The most significant scientific advance of the last 100 years has been ... nitrogen fixation.

The biggest problem that scientists face is ... the efficient conversion of carbon dioxide into useful organic compounds.

chose chemistry as a career because ... of my inspiration to synthesize new functional molecules.

My best investment was ... my students and co-workers.

f I were not a scientist, I would be ... a philosopher.

My most exciting discovery to date has been ... the photochemical reactivity of green fluorescent protein.

My 5 top papers:

- "Significant Increase of Oxidase Activity through the Genetic Incorporation of a Tyrosine – Histidine Cross-Link in a Myoglobin Model of Heme – Copper Oxidase": X. H. Liu, Y. Yu, C. Hu, W. Zhang, Y. Lu, J. Wang, Angew. Chem. 2012, 125, 4388–4392; Angew. Chem. Int. Ed. 2012, 51, 4312–4316. (A heme – copper oxidase model enzyme that exhibits high activity and selectivity and may be a suitable alternative to precious-metal catalysts in fuel cells.)
- "Genetic Incorporation of a Metal-Chelating Amino Acid as a Probe for Protein Electron Transfer": X. H. Liu, J. S. Li, J. Dong, C. Hu, W. Gong, J. Wang, *Angew. Chem.* 2012, 124, 10407–10411. (The photochemical reactivity of green fluorescent protein.)
- 3. "A Genetically Encoded ¹⁹F NMR Sensor for Tyrosine Phosphorylation": F. H. Li, P. Shi, J. Li, F. Yang, T.

- Wang, W. Zhang, F. Gao, W. Ding, D. Li, J. Li, Y. Xiong, J. Sun, W. Gong, C. Tian, J. Wang, *Angew. Chem.* **2013**, *125*, 4050–4054; *Angew. Chem. Int. Ed.* **2013**, *52*, 3958–3962. (A probe for tyrosine phosphorylation and drug/protein interactions.)
- 4. "Is the olfactory receptor a metalloprotein?": J. Y. Wang, Z. A. Luthey-Schulten, K. S. Suslick, *Proc. Natl. Acad. Sci.* **2003**, *100*, 3035–3039. (Discovery that some olfactory receptors are metalloproteins, and proposal of the shuttlecock mechanism for odorant-induced signal transduction.)
- "A Genetically Encoded Fluorescent Amino Acid": J. Y. Wang, J. M. Xie, P. G. Schultz, J. Am. Chem. Soc. 2006, 128, 8738–8739. (The genetic incorporation of a fluorescent unnatural amino acid, which provided a key tool for probing protein motion.)

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