



C. Fan

Chunhai Fan

Date of birth:	March 11, 1974
Position:	Professor, Shanghai Institute of Applied Physics, Chinese Academy of Sciences
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Education:	1992–1996, BS, Nanjing University 1996–2000, PhD (supervised by Prof. Dexu Zhu and Prof. Genxi Li), Nanjing University 2001–2003, Postdoctoral fellow with Prof. Alan J. Heeger and Prof. Kevin W. Plaxco, University of California, Santa Barbara
Awards:	2011 National Award for Young Scientists of China; 2012 Chinese Academy of Sciences Award for Young Scientists; 2014 Elected Fellow of the International Society of Electrochemistry (ISE)
Research:	Biosensors; biophotonics; DNA nanotechnology and computation
Hobbies:	Reading, tai chi, travel

The author presented on this page has published more than **10 articles** in *Angewandte Chemie* in the last 10 years, most recently:

“Dynamic and Quantitative Control of the DNA-Mediated Growth of Gold Plasmonic Nanostructures”: J. Shen, L. Xu, C. Wang, H. Pei, R. Tai, S. Song, Q. Huang, C. Fan, G. Chen, *Angew. Chem. Int. Ed.* **2014**, 53, 8338–8342; *Angew. Chem.* **2014**, 126, 8478–8482.

My favorite food is ... Mongolian-style barbeque lamb.

If I won the lottery, I would ... go traveling.

The most important thing I learned from my parents is ... to never give up.

When I'm frustrated, I ... try to go to sleep.

My favorite quote is ... “The supreme of art of war is to subdue the enemy without fighting” (from *The Art of War* by Sun Tzu).

The most significant scientific advance of the last 100 years has been ... the discovery of the double-helix structure of DNA.

My favorite piece of research is ... cell imaging with DNA nanoprobes.

My favorite place on earth is ... Suzhou, China.

If I were not a scientist, I would be ... a historian.

My most exciting discovery to date has been ... that self-assembled DNA nanostructures can enter cells in the same manner as a virus.

My 5 top papers:

1. “Single-Particle Tracking and Modulation of Cell Entry Pathways of a Tetrahedral DNA Nanostructure in Live Cells”: L. Liang, J. Li, Q. Li, Q. Huang, J. Shi, H. Yan, C. Fan, *Angew. Chem. Int. Ed.* **2014**, 53, 7745–7750; *Angew. Chem.* **2014**, 126, 7879–7884. (A set of microscopic and biochemical methods was used for monitoring the behavior of a DNA nanostructure in live cells.)
2. “Single-Step Rapid Assembly of DNA Origami Nanostructures for Addressable Nanoscale Bioreactors”: Y. Fu, D. Zeng, J. Chao, Y. Jin, Z. Zhang, H. Liu, D. Li, H. Ma, Q. Huang, K. V. Gothelf, C. Fan, *J. Am. Chem. Soc.* **2013**, 135, 696–702. (A DNA-nanotechnology-enabled approach to organize enzyme molecules at the nanoscale.)
3. “Reconfigurable Three-Dimensional DNA Nanostructures for the Construction of Intracellular Logic Sensors”: H. Pei, L. Liang, G. Yao, J. Li, Q. Huang, C. Fan, *Angew. Chem. Int. Ed.* **2012**, 51, 9020–9024; *Angew. Chem.* **2012**, 124, 9154–9158. (Logic operations were carried out inside cells by using a reconfigurable DNA nanostructure.)
4. “Designed Diblock Oligonucleotide for the Synthesis of Spatially Isolated and Highly Hybridizable Functionalization of DNA–Gold Nanoparticle Nanoconjugates”: H. Pei, F. Li, Y. Wan, M. Wei, H. Liu, Y. Su, N. Chen, Q. Huang, C. Fan, *J. Am. Chem. Soc.* **2012**, 134, 11876–11879. (Modification of gold nanoparticles with unmodified DNA oligonucleotides without relying on the use of thiolated DNA.)
5. “A DNA Nanostructure-based Biomolecular Probe Carrier Platform for Electrochemical Biosensing”: H. Pei, N. Lu, Y. Wen, S. Song, Y. Liu, H. Yan, C. Fan, *Adv. Mater.* **2010**, 22, 4754–4758. (A generic biosensing platform by using gold surfaces engineered with DNA nanostructures.)



The work of C. Fan has been featured on the cover of *Angewandte Chemie*:

“Nanoparticle PCR with Enhanced Specificity”: H. Li, J. Huang, J. Lv, H. An, X. Zhang, Z. Zhang, C. Fan, J. Hu, *Angew. Chem. Int. Ed.* **2005**, 44, 5100–5103; *Angew. Chem.* **2005**, 117, 5230–5233.

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