





C. Mao

The author presented on this page has recently published his 10th article in Angewandte Chemie in the last 10 years:
"DNA-Directed Three-Dimensional Protein Organization": C. Zhang, C. Tian, F. Guo, Z. Liu, W. Jiang, C. Mao, Angew. Chem. 2012, 124, 3438–3441; Angew. Chem. Int. Ed. 2012, 51, 3382–3385.



The work of C. Mao has been featured on the cover of Angewandte Chemie: "Molecular Lithography with DNA Nanostructures": Z. Deng, C. Mao, Angew. Chem. 2004, 116, 4160–4162; Angew. Chem. Int. Ed. 2004, 43, 4068–4070.

Chengde Mao

Date of birth: September 18, 1964

Position: Professor of Chemistry, Purdue University (USA)

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Homepage: http://www.chem.purdue.edu/mao/ Education: 1986 BSc, Beijing University

1999 PhD with Prof. Nadrian C. Seeman, New York University

2001–2002 Postdoctoral position with Prof. George M. Whitesides, Harvard University

Research: Supramolecular DNA chemistry, self-assembly, nanostructures

Hobbies: Reading, jogging, listening to Chinese pop songs

My motto is ... "simple is beautiful".

My favorite drink is ... green tea.

The greatest scientific advance of the last decade was ... the development of induced pluripotent stem cells.

When I was eighteen I wanted to be ... a scientist.

Looking back over my career, I ... think that I have almost done my best.

Last time I went to the pub ... I drank several beers.

My first experiment was ... trying to make a bomb with calcium oxide and water in a closed glass jar (failed).

n a spare hour I ... like to read articles on random subjects.

My favorite way to spend a holiday is ... to eat delicious food, get extra sleep, and have a good run.

My favorite molecule is ... DNA, of course.

My science "heroes" are ... Marie Curie and Nadrian C. Seeman.

If I had one year of paid leave I would ... spend it with my family and learn biology.

The principal aspect of my personality is ... being modest (中庸).

My favorite musician is ... Luo Dayou (罗大佑).

My favorite books are ... the novels of Jin Yong.

The natural talent I would like to be gifted with ... is being smart.

My 5 top papers:

- 1. "Molecular Lithography with DNA Nanostructures": Z. Deng, C. Mao, Angew. Chem. 2004, 116, 4160–4162; Angew. Chem. Int. Ed. 2004, 43, 4068–4070. (Self-assembled, sophisticated DNA nanostructures can be transferred into inorganic, functional materials at a resolution comparable to that of electron beam lithography.)
- "Hierarchical Self-Assembly of DNA into Symmetric Supramolecular Polyhedra": Y. He, T. Ye, M. Su, C. Zhang, A. E. Ribbe, W. Jiang, C. Mao, *Nature* 2008, 452, 198–201. (A strategy for 3D molecular selfassembly that mimics the self-assembly process of viral capsids.)
- 3. "From molecular to macroscopic via the rational design of a self-assembled 3D DNA crystal": J. Zheng, J. J. Birktoft, Y. Chen, T. Wang, R. Sha, P. E. Constantinou, S. L. Ginell, C. Mao, N. C. Seeman,

- Nature 2009, 461, 74-77. (The first demonstration of the self-assembly of rationally designed 3D DNA crystals, which is an important milestone in the field of structural DNA nanotechnology.)
- "Synergistic Self-Assembly of RNA and DNA Molecules": S. H. Ko, M. Su, C. Zhang, A. E. Ribbe, W. Jiang, C. Mao, *Nature Chemistry* 2010, 2, 1050–1055. (This work develops a unified approach for programmed self-assembly of nucleic acids, including both RNA and DNA.)
- "DNA-Directed Three-Dimensional Protein Organization": C. Zhang, C. Tian, F. Guo, Z. Liu, W. Jiang, C. Mao, Angew. Chem. 2012, 124, 3438-3441; Angew. Chem. Int. Ed. 2012, 51, 3382-3385. (A general approach for the assembly of finite-sized protein oligomers with a predesigned spatial arrangement.)

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