



L. Sun

The author presented on this page has published more than **10 articles** in *Angewandte Chemie* in the last 10 years, most recently: "Efficient Dye-Sensitized Solar Cells Based on Hydroquinone/Benzoquinone as a Bioinspired Redox Couple": M. Cheng, X. Yang, F. Zhang, J. Zhao, L. Sun, *Angew. Chem.* **2012**, 124, 10034–10037; *Angew. Chem. Int. Ed.* **2012**, 51, 9896–9899.

Licheng Sun

Date of birth:	August 25, 1962
Position:	Professor, School of Chemical Science and Engineering, KTH Royal Institute of Technology
E-mail:	lichengs@kth.se
Homepage:	http://www.kth.se/che/divisions/orgkem/research/lichengsun?l=en_UK
Education:	1984 BSc in Chemical Engineering, Dalian University of Technology (DUT), China 1987 MSc in Chemical Engineering, DUT 1990 PhD supervised by Jingzong Yang, DUT 1992–1993 Postdoctoral research with Prof. Dr. Helmut Görner, Max Planck Institute for Radiation Chemistry, Mülheim an der Ruhr 1993–1995 Alexander von Humboldt Fellow with Prof. Dr. Harry Kurreck, Institut für Organische Chemie, Freie Universität Berlin
Awards:	2001 NSFC Distinguished Young Investigator Award (Type B); ChangJiang Scholarship from the Chinese Ministry of Education; 2009 Thousand Talent Program from the Chinese Government
Current research interests:	Artificial photosynthesis; molecular catalysts for water oxidation and hydrogen generation; functional devices for light-driven water splitting; dye-sensitized solar cells; solar fuels
Hobbies:	Fishing, sport, forest activities

My worst nightmare is ... transcontinental travel for more than 36 hours.

My favorite piece of research is ... CO₂ activation.

My biggest motivation is ... to challenge the "Holy Grail" of artificial photosynthesis.

The downside of my job is ... often missing dinner with my family.

When I'm frustrated, I ... always try to think about the successes I have achieved.

The best chemistry adventure in my career was ... the discovery of a molecular water oxidation catalyst with a water molecule as the seventh ligand.

My favorite food is ... doufu (豆腐; tofu in a spicy sauce).

What I look for first in a publication is ... how deeply the authors understand the topic.

If I won the lottery, I would ... create a private research institute for solar fuels.

The most important thing I learned from my parents is ... to not give up easily.

My favorite place on earth is ... Praslin (an island in the Seychelles).

My 5 top papers:

1. "A molecular ruthenium catalyst with water-oxidation activity comparable to that of photosystem II": L. Duan, F. Bozoglian, S. Mandal, B. Stewart, T. Privalov, A. Llobet, L. Sun, *Nature Chem.* **2012**, 4, 418–423. (The most efficient reported molecular catalyst for water oxidation, with a turnover frequency of more than 300 per second.)
2. "Structural Modifications of Mononuclear Ruthenium Complexes: A Combined Experimental and Theoretical Study on the Kinetics of Ruthenium-Catalyzed Water Oxidation": L. Tong, L. Duan, Y. Xu, T. Privalov, L. Sun, *Angew. Chem.* **2011**, 123, 465–469; *Angew. Chem. Int. Ed.* **2011**, 50, 445–449. (A small change in the ligand makes a big difference in water oxidation mechanisms.)
3. "Organic Redox Couples and Organic Counter Electrodes for Efficient Organic Dye-Sensitized Solar Cells": H. Tian, Z. Yu, A. Hagfeldt, L. Kloo, L. Sun, *J. Am. Chem. Soc.* **2011**, 133, 9413–9422. (Solar-cell components can go all-organic!)
4. "Dye-Sensitized Solar Cells": A. Hagfeldt, G. Boschloo, L. Sun, L. Kloo, H. Pettersson, *Chem. Rev.* **2010**, 110, 6595–6663. (This review is cited almost daily since its publication.)
5. "Isolated Seven-Coordinate Ru(IV) Dimer Complex with [HOHOH][−] Bridging Ligand as an Intermediate for Catalytic Water Oxidation": L. Duan, A. Fischer, Y. Xu, L. Sun, *J. Am. Chem. Soc.* **2009**, 131, 10397–10399. (The secret of efficient water oxidation: catalysis by coordination of the water molecule as the seventh ligand.)

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