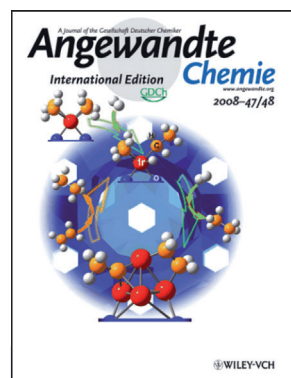




B. C. Gates

The author presented on this page has recently published his **10th article** in *Angewandte Chemie* in the last 10 years:

“Three-Dimensional Structural Analysis of MgO-Supported Osmium Clusters by Electron Microscopy with Single-Atom Sensitivity”: C. Aydin, A. Kulkarni, M. Chi, N. D. Browning, B. C. Gates, *Angew. Chem.* **2013**, 125, 5370–5373; *Angew. Chem. Int. Ed.* **2013**, 52, 5262–5265.



The work of B. C. Gates has been featured on the inside cover of *Angewandte Chemie*:

“Real-Time Characterization of Formation and Breakup of Iridium Clusters in Highly Dealuminated Zeolite Y”: A. Uzun, B. C. Gates, *Angew. Chem.* **2008**, 120, 9385–9388; *Angew. Chem. Int. Ed.* **2008**, 47, 9245–9248.

Bruce C. Gates

Date of birth:	July 5, 1940
Position:	Distinguished Professor, Chemical Engineering & Materials Science, University of California, Davis
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Homepage:	http://www.chms.ucdavis.edu/research/web/catalysis/
Education:	1961 Undergraduate degree, University of California, Berkeley 1966 PhD supervised by L. N. Johanson, University of Washington 1966–1967 Postdoctoral work with G.-M. Schwab, Ludwig-Maximilians-Universität München
Awards:	2002 R. H. Wilhelm Award in Chemical Reaction Engineering, American Institute of Chemical Engineers; 2004 Gabor A. Somorjai Award for Creative Research in Catalysis, American Chemical Society; 2006 Malcolm E. Pruitt Award, Council for Chemical Research; 2010 Robert L. Burwell Lectureship, North American Catalysis Society
Research:	Molecular catalysis on surfaces: metal complexes, metal clusters, zeolite supports
Hobbies:	Herpetology, photography, camping/hiking

My favorite saying is ... when the going gets tough, the tough get going (meant ironically).

I admire ... Nelson Mandela.

I advise my students to ... develop independence and help the team.

My favorite way to spend a holiday is ... doing herpetology in southern Africa.

The secret of being a successful scientist is ... to be a contrarian, avoid the trends (and manage to fund it).

If I had one year of paid leave I would ... travel, visit friends, read, and think.

My favorite painter is ... Paul Cézanne.

My favorite composer is ... Johann Sebastian Bach.

The natural talent I would like to be gifted with ... pure athleticism.

The greatest scientific advance of the last decade was ... understanding the molecular foundations of biology.

My favorite drink is ... $\text{CO}_2 + \text{H}_2\text{O} + \text{Ca}^{2+} + \text{Mg}^{2+} + \dots$

If I were a car I would be ... a Porsche 911.

My 5 top papers:

1. “Hydrodesulfurization of methyl-substituted dibenzothiophenes catalyzed by sulfided Co-Mo/ γ - Al_2O_3 ”: M. Houalla, D. H. Broderick, A. V. Sapre, N. K. Nag, V. H. J. de Beer, B. C. Gates, H. Kwart, *J. Catal.* **1980**, 61, 523–527. (These compounds are the bottlenecks to converting oil to clean fuel.)
2. “Size-dependent catalytic activity of supported metal clusters”: Z. Xu, F.-S. Xiao, S. K. Purnell, O. Alexeev, S. Kawi, S. E. Deutsch, B. C. Gates, *Nature* **1994**, 372, 346–348. (Helped demonstrate new catalytic properties of sub-nanometer metal clusters stabilized on supports.)
3. “Monomolecular and bimolecular mechanisms of paraffin cracking: *n*-butane cracking catalyzed by HZSM-5”: H. Krannila, W. O. Haag, B. C. Gates, *J. Catal.* **1992**, 135, 115–124. (The *n*-butane conversion now seems to be prototypical and is still widely investigated.)
4. “Evidence from NMR and EXAFS Studies of a Dynamically Uniform Mononuclear Single-Site Zeolite-Supported Rhodium Catalyst”: J. O. Ehresmann, P. W. Kletnieks, A. Liang, V. A. Bhurud, O. P. Bagatchenko, E. J. Lee, M. Klaric, B. C. Gates, J. F. Haw, *Angew. Chem.* **2006**, 118, 588–590; *Angew. Chem. Int. Ed.* **2006**, 45, 574–576. (Provided a conceptual link between solution and surface catalysis.)
5. “Imaging Isolated Gold Atom Catalytic Sites on Zeolite NaY”: J. Lu, C. Aydin, N. D. Browning, B. C. Gates, *Angew. Chem.* **2012**, 124, 5944–5948; *Angew. Chem. Int. Ed.* **2012**, 51, 5842–5846. (It took a long time before catalytic sites could be observed on this scale.)

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