



H. Sugiyama

The author presented on this page has published more than **10 articles** in *Angewandte Chemie* in the last 10 years, most recently: "Direct and Single-Molecule Visualization of the Solution-State Structures of G-Hairpin and G-Triplex Intermediates": A. Rajendran, M. Endo, K. Hidaka, H. Sugiyama, *Angew. Chem.* **2014**, 126, 4191–4196; *Angew. Chem. Int. Ed.* **2014**, 53, 4107–4102.

Hiroshi Sugiyama

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Position:	Professor, Kyoto University
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Education:	1979 Undergraduate degree, Kyoto University 1984 PhD supervised Prof. Teruo Matsuura, Kyoto University 1984–1986 Postdoctoral position with Prof. Sidney M. Hecht, University of Virginia
Awards:	2005 The CSJ Award for Creative Work; 2011 Nagase Foundation Award
Current research interests:	Design of artificial genetic switches; direct visualization of biomolecules; design of tailor-made antitumor agents; DNA sequence recognition; DNA charge transfer
Hobbies:	Playing tennis and table tennis

My favorite theorem is ... Koopman's theorem.

My favorite painter is ... Salvador Dalí.

My favorite quotes are ... "Dans les champs de l'observation le hasard ne favorise que les esprits préparés" (Louis Pasteur) and "What I cannot create, I do not understand" (Richard Feynman).

My favorite time of day is ... the early morning.

I advise my students to ... be optimistic when things are going bad, and be careful when things are going well.

The greatest scientific advance of the last decade was ... high-throughput parallel DNA sequencing.

When I was eighteen I wanted to be ... a scientist who always has a serious question to be solved.

Science is fun because ... each person can make their unique contribution to the field.

Young people should study chemistry because ... it can be a good base for both life and materials sciences.

My favorite drink is ... full-bodied red wine, especially Cabernet Sauvignon and Montepulciano d'Abruzzo.

My first experiment was ... the synthesis of 1,4-diphenyl-1,4-cyclohexadiene.

My 5 top papers:

1. "Theoretical Studies of GG-Specific Photocleavage of DNA via Electron Transfer: Significant Lowering of Ionization Potential and 5'-Localization of HOMO of Stacked GG Bases in B-Form DNA": H. Sugiyama, I. Saito, *J. Am. Chem. Soc.* **1996**, 118, 7063–7068. (Ab initio calculations were applied to explain GG-specific DNA cleavage under photooxidation conditions.)
2. "Visualization of Dynamic Conformation Switching of the G-Quadruplex in a DNA Nanostructure": Y. Sannohe, M. Endo, Y. Katsuda, K. Hidaka, H. Sugiyama, *J. Am. Chem. Soc.* **2010**, 132, 16311–16313. (G-quadruplex formation was directly visualized.)
3. "Direct observation of stepwise movement of a synthetic molecular transporter": S. F. J. Wickham, M. Endo, Y. Katsuda, K. Hidaka, J. Bath, H. Sugiyama, A. J. Turberfield, *Nature Nanotechnol.* **2011**, 6, 166–169. (Direct visualization of a DNA motor.)
4. "A Synthetic Small Molecule Enforces Targeted Transcriptional Activation of Germ Cell Genes in a Human Somatic Cell": L. Han, G. N. Pandian, S. Junetha, S. Sato, C. Anandhkumar, J. Taniguchi, A. Saha, T. Bando, H. Nagase, H. Sugiyama, *Angew. Chem.* **2013**, 125, 13652–13655; *Angew. Chem. Int. Ed.* **2013**, 52, 13410–13413. (Sequence-specific binding of a polyamide–HDAC-inhibitor conjugate activates germ cell genes.)
5. "Distinct DNA-based epigenetic switches trigger transcriptional activation of silent genes in human dermal fibroblasts": G. N. Pandian, J. Taniguchi, S. Junetha, S. Sato, L. Han, A. Saha, C. Anandhkumar, T. Bando, H. Nagase, V. Thangavel, R. D. Taylor, H. Sugiyama, *Sci. Rep.* **2014**, 4, 3843. (Sequence-specific binding of polyamide–HDAC-inhibitor conjugates can act as an artificial genetic switch.)

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