



M. Endo

## Masayuki Endo

**Date of birth:** January 17, 1968  
**Position:** Associate Professor, Institute for Integrated Cell-Material Sciences, Kyoto University  
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**Education:** 1992 BSc, Kyoto University  
 1997 PhD supervised by Prof. Makoto Komiyama, The University of Tokyo  
 1997–1998 Postdoctoral work with Prof. Hiroshi Sugiyama, Tokyo Medical and Dental University  
 1998–2000 Postdoctoral work with Prof. Gregory L. Verdine, Harvard University  
 2000–2001 Postdoctoral work with Prof. Shigeyuki Yokoyama, RIKEN  
**Awards:** 2012 Nagase Foundation Award  
**Research:** Nucleic acid nanotechnology; single-molecule observation; molecular robotics; artificial cells  
**Hobbies:** Visiting gardens, mountain walking, driving with my family

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

“Single-Molecule Mechanochemical Sensing Using DNA Origami Nanostructures”: D. Koirala, P. Shrestha, T. Emura, K. Hidaka, S. Mandal, M. Endo, H. Sugiyama, H. Mao, *Angew. Chem. Int. Ed.* **2014**, 53, 8137; *Angew. Chem.* **2014**, 126, 8275.

This work was also featured on the inside back cover of *Angewandte Chemie*.

**My favorite music is ...** Tchaikovsky's ballet music.

**The most exciting thing about my research is ...** directly observing the behavior of my favorite molecules.

**My biggest motivation is ...** exploring things that nobody has previously achieved.

**My favorite quote is ...** “Imagination is more important than knowledge” (Albert Einstein).

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

**What I look for first in a publication is ...** the validity of the new findings and their future potential.

**My favorite aspect of research is ...** designing fantastic nanoscale architectures.

**If I won the lottery, I would ...** buy a small island.

**My favorite place on earth is ...** Kyoto.

**I chose chemistry as a career because ...** all the interesting research that I want to realize can be achieved by using chemistry.

**If I were not a scientist, I would be ...** a musical arranger.

### My 5 top papers:

1. “Regulation of DNA Methylation Using Different Tensions of Double Strands Constructed in a Defined DNA Nanostructure”: M. Endo, Y. Katsuda, K. Hidaka, H. Sugiyama, *J. Am. Chem. Soc.* **2010**, 132, 1592–1597. (A single-molecule observation system for the analysis of enzyme reactions and DNA structural changes by using designed DNA origami and high-speed AFM.)
2. “Programmed-Assembly System Using DNA Jigsaw Pieces”: M. Endo, T. Sugita, Y. Katsuda, K. Hidaka, H. Sugiyama, *Chem. Eur. J.* **2010**, 16, 5362–5368. (Assembling multiple different DNA origami units in a programmed fashion.)
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, *Nat. Nanotechnol.* **2011**, 6, 166–169. (A high-speed AFM observation of a DNA nanomachine working on DNA origami.)
4. “DNA Origami Based Visualization System for Studying Site-Specific Recombination Events”: Y. Suzuki, M. Endo, Y. Katsuda, K. Ou, K. Hidaka, H. Sugiyama, *J. Am. Chem. Soc.* **2014**, 136, 211–218. (Analysis of the effect of the structural stress on DNA recombination by using designed DNA nanostructures.)
5. “Single-Molecule Imaging of Dynamic Motions of Biomolecules in DNA Origami Nanostructures Using High-Speed Atomic Force Microscopy”: M. Endo, H. Sugiyama, *Acc. Chem. Res.* **2014**, 47, 1645–1653. (A summary of our recent work.)



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