







A. Harada

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

"Self-Healing, Expansion – Contraction, and Shape-Memory Properties of a Preorganized Supramolecular Hydrogel through Host – Guest Interactions": K. Miyamae, M. Nakahata, Y. Takashima, A. Harada, Angew. Chem. Int. Ed. 2015, 54, 8984; Angew. Chem. 2015, 127, 9112.



The work of A. Harada has been featured on the back cover of Angewandte Chemie:

"Artificial Molecular Clamp: A Novel Device for Synthetic Polymerases": Y. Takashima, M. Osaki, Y. Ishimaru, H. Yamaguchi, A Harada, Angew. Chem. Int. Ed. 2011, 50, 7524; Angew. Chem. 2011, 123, 7666.

Akira Harada

Date of birth: September 8, 1949

Professor, Graduate School of Science, Osaka University

E-mail: harada@chem.sci.osaka-u.ac.jp

Homepage: http://www.chem.sci.osaka-u.ac.jp/lab/harada/

Education: 1972 BS, Osaka University 1974 MS, Osaka University

1977 PhD supervised by Shun-ichi Nozakura, Osaka University 1978 Visiting scientist at the IBM Research Center, San José

1979 Postdoctoral research with Prof. J. K. Stille at Colorado State University

Awards: 1993 IBM Japan Science Award; 1998 Osaka Science Award; 2000 The Award of the Society of

Polymer Science, Japan (SPSJ); **2001** Cyclodextrin Award, The Society of Cyclodextrins, Japan; **2006** Medal with Purple Ribbon conferred by the Emperor of Japan; **2008** Izatt-Christensen Award in Macrocyclic Chemistry; **2011** The Chemical Society Japan Award; **2014** SPSJ Award

for Outstanding Achievements in Polymer Science and Technology

Current research Polymer synthesis; supramolecular polymer chemistry; biomacromolecules; functionalized

interests: antibodies Hobbies: Gardening

My biggest motivation is unexpected results.

lose track of time when I am doing experiments.

My favorite foods are sweets and sushi.

My favorite author (fiction) is Zhuang Zhou (also known as Zhuangzi; a philosopher who lived around 300 BC).

My favorite quote is "Science may set limits to knowledge, but should not set limits to imagination (Bertrand Russell).

The biggest problem that scientists face is ensuring the sustainability of mankind.

When I'm frustrated, I listen to classical music.

The most important thing I learned from my parents is to be honest, polite, and generous to others.

My favorite place on earth is my home.

chose chemistry as a career because there was no other choice.

My most exciting discovery to date has been macroscopic self-assembly and self-healing of polymeric materials by molecular recognition.

My 5 top papers:

- 1. "The molecular necklace: a rotaxane containing many threaded α-cyclodextrins": A. Harada. J. Li, M. Kamachi, *Nature* **1992**, *356*, 325. (An unexpected finding.)
- "Macroscopic self-assembly through molecular recognition": A. Harada, R. Kobayashi, Y. Takashima, A. Hashidzume, H. Yamaguchi, *Nat. Chem.* 2011, 3, 34. (Visualization of a molecular-level event on the macroscopic scale.)
- 3. "Artificial Molecular Clamp: A Novel Device for Synthetic Polymerases": Y. Takashima, M. Osaki, Y. Ishimaru, H. Yamaguchi, A Harada, *Angew. Chem. Int.*
- *Ed.* **2011**, *50*, 7524; *Angew. Chem.* **2011**, *123*, 7666. (A series of serendipitous findings.)
- "Redox-responsive self-healing materials formed from host-guest polymers": M. Nakahata, Y. Takashima, Y. Yamaguchi, A. Harada, Nat. Commun. 2011, 2, 511. (Self-healing processes take place through host-guest interactions and are controlled using redox reactions.)
- "Metal-ion-responsive adhesive material via switching of molecular recognition properties": T. Nakamura, Y. Takashima, A. Hashidzume, H. Yamaguchi, A. Harada, *Nat. Commun.* 2014, 5, 4622. (A molecular recognition event could be controlled by metal ions.)

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