

Editorial

Dear Reader,

The **Journal of Photochemistry and Photobiology A: Chemistry** (JPPA, in short) has, ever since its inception of the journal in 1972, closely followed new research developments within the field of photochemistry. Where and when appropriate the journal's scope was broadened to include topics beyond the initial science of the absorption of light by atoms and small molecules, and their excited states; and new Editors were appointed to cover those upcoming areas. Nowadays, 32 years since the start, the Journal still is the biggest journal in its field, and a broad range of photochemistry is published in the journal, from fundamental to applied research, including the most modern aspects.

This month, some editorial changes take place. Prof. Monique Martin starts as Regional Editor for Europe and takes over this region from Richard Wayne, who was Editor-in-Chief until now. The Asian regional office of Prof. Masuhara is strengthened by the appointment of Prof. Kazuhito Hashimoto as Associate Editor. Biographies of Monique and Kazuhito are printed below.

Along with these changes, the Aims & Scope of the journal have also been amended, to include the latest research developments in photochemistry, and research fields that border it.

The Aims & Scope now read

See also <http://www.elsevier.com/locate/jphotochem>

JPPA publishes Notes, Short Communications and Full-length Articles on chemical phenomena induced by interactions between light and molecules/matter, of all kinds. Organic, inorganic, biological, macromolecules, supramolecular integrated systems; semiconductor and metallic systems are all included, and the widest range of photochemistry disciplines is covered.

The scope includes studies of a broad range of processes in photochemistry such as energy, electron and proton transfer; quantum yield determinations and measurements of rate constants for primary and secondary photochemical processes; studies on steady-state and time-resolved emission; absorption and scattering spectroscopy applied to photochemistry; mechanistic investigation of photochemical reactions; identification of the products of photochemical reactions.

Topical areas covered by the journal include fundamental studies of condensed phase, gas phase and atmospheric photochemistry, synchrotron radiation chemistry and spin effects on photochemical processes. Reports on emerging areas like: solar energy conversion, environmental remediation, and related photocatalytic reactions are also welcome. In addition investigations of molecules in intense laser fields such as reactive intermediates; nonlinear photochemical behaviour; and ultra-fast relaxation (femtosecond laser research applied to photochemistry) are published. Furthermore, reports of studies employing microscopy in spectroscopy and photochemistry; single-molecule photochemistry and spectroscopy; nano-scale photochemical phenomena and laser micro/nano-processing are welcome as long as the work contributes not only to photochemical applications but also to basic understandings of molecular characteristics. JPPA also welcomes manuscripts on time-resolved X-Ray diffraction for probing photoinduced structural changes in chemical and biological reactions. Papers relating to polymerization, photodegradation or photostabilization of polymers, chemical aspects of phototherapy and the design of photoreactors will also be considered.

Prospective authors of review articles are kindly advised to consult the Journal of Photochemistry and Photobiology C: Photochemistry Reviews and follow manuscript preparation instructions as described at <http://www.elsevier.com/locate/jphotochemrev>.

Monique Martin is a CNRS Director of Research at the Department of Chemistry of Ecole Normale Supérieure de Paris, France, where she leads the Group of Ultrafast Photochemistry.

Her PhD thesis in Physical Chemistry (1970, Paris-South University, Orsay), prepared under Professor Lars Lindqvist's supervision, was devoted to radiationless transitions in large molecules.

In 1970, she got a permanent position as a CNRS researcher at the Laboratory of Molecular Photophysics (LPM, Orsay) where she studied the role of solute-solvent hydrogen bonding on radiationless deactivation of organic dyes in solution, by steady-state and time-resolved spectroscopy using both microsecond-flash and nanosecond-laser photolysis technologies.

As a postdoctoral fellow in Professor William Ware's laboratory at the University of Western Ontario (London, Ontario, Canada) in 1976–1977 and later, in 1981, as a

visiting scientist in Professor Noboru Mataga's laboratory (Osaka University, Japan) she devoted her researches to the primary photoinduced processes in hydrogen-bonded complexes in solution. In Prof. Mataga's group, she contributed to one of the first experimental evidence of fast photoinduced charge-transfer in hydrogen-bonded complexes, by picosecond-laser absorption spectroscopy.

Back in Orsay she worked with Professor Yves Meyer, physicist at the LPM, and contributed to developments of ultrashort-pulse dye-lasers according to original concepts (CNRS patent 1985). She then devoted her studies to ultrafast molecular processes in organic systems, such as photoinduced electron transfer, photodissociation, isomerisation, internal twisting and solvation phenomena.

She joined the Department of Chemistry of Ecole Normale Supérieure with her group in 2000 where she is developing a research field on the primary photoprocesses responsible for the phototaxis and photophoby of microorganisms, at the frontier with photobiology.

Kazuhito Hashimoto is currently the director of Research Center for Advanced Science and Technology (RCAST), University of Tokyo. He is also a professor at the Department of Applied Chemistry, within the School of Engineering of The University of Tokyo. His current research interests are photo-related chemistry such as photocatalysis and photomagnetism.

After receiving his BS and MS degrees at The University of Tokyo, he got a research position at the Institute for Molecular Science (Okazaki, Japan) in 1980, where he became research associate in 1984. He received PhD degree from The University of Tokyo in 1985. In 1989, he was invited as a lecturer to the laboratory of Professor Akira Fujishima at the Department Applied Chemistry of The University of Tokyo, where he was promoted to an Associate Professor in 1991. When he became a full Professor

of The University of Tokyo, he opened his own laboratory at RCAST in 1997. He succeeded Prof. Fujishima's chair and opened his laboratory at the Department of Applied Chemistry in 2003. From April of 2004, he is also working as the director of RCAST.

He discovered that titanium dioxide (TiO_2) is highly effective for photocatalytic decomposition of organics, even under weak, ambient light exposure such as fluorescent lamps. Based on this findings, he started a novel application of photocatalysis: a coating of various building materials with TiO_2 film. In addition, he found that the surface of TiO_2 becomes highly hydrophilic after UV light irradiation. These discoveries contributed to the development for a new class of self-cleaning materials such as ceramic tiles, glass, wall-paints, etc., which are now in practical use and their market size has since expanded to about 700 Million US Dollars in 2003. His further challenge is to apply this technology to environmental preservation technologies. This new approach sheds light on solving soil pollution, water pollution and urban heat-island phenomena. He has been conducting many research projects including a national project funded by the Ministry of Education, Culture, Sports, Science and Technology, the New Energy and Industrial Technology Development Organization (NEDO) and the Kanagawa Academy of Science and Technology (KAST).

He is also intensively studying opto-magnetic phenomena of molecular magnets. His research group discovered that magnetic behaviour of Prussian blue analogs could be controlled by light irradiation; this was reported in 1996, and opened a new research field of photo-magnetic and magneto-optical materials.

He has received many awards including IBM Science Award (1997), the Japan Photochemistry Association Award (1998), and the Prime Minister's Award for the contribution in academia-industry cooperation (2004).