

Report on the Autumn Meeting of the French Group of Photochemistry (GFP),
Arcachon, France, November 16-17, 2006

The autumn meeting of the Groupe Français de Photochimie (GFP) was held in the shadow of the sand dune of Pyla, near Arcachon (16th-17th November 2006). In addition to the numerous participants from all corners of France, the plenary lecturer Frans De Schryver (Katholieke Universiteit Leuven, Belgium) was counted among the number. His opening lecture of the photophysics session dealt with diverse state-of-the-art spectroscopies with particular regard to studies of energy and electron transfer in multichromophoric single molecules and single enzyme studies, highlighting the differences between single molecule and ensemble measurements. The session continued with a study of a new series of fluorescent π -conjugated cyanine-type dyes by Valérie Guieu (Toulouse) and the fluorescent quenching of fluorophore-decorated gold nanoparticles by Martinus Werts (Rennes). Jean-François Lamère (Toulouse) highlighted the effect of applied electric fields on optical non-linear properties, while Celine Frochot (Nancy) described the behaviour of macromolecules in solution, as determined by fluorescence. The first session closed with Jérôme Berthet's (Lille) presentation of a new series of photochromes.

The second session was oriented towards applications of photochemistry in biology and the environment. Dimitra Markovitsi (Saclay) opened this session on considering UV absorption by DNA bases and reconsidering the localisation of excitation energy. The session continued as Patricia Vicendo (Toulouse) described the application of protein-ruthenium polypyridine systems with a view to potential applications in the phototreatment of different medical conditions. The day's final oral presentations were assured by Martin Byrdin (Saclay) and Sabrina Halladja (Clermont-Ferrand) who described mechanistic aspects with regards to electron transfer in amino acids and phototransformation of phenols in the presence of organic matter, respectively.

The first day's scientific programme concluded with an animated poster session, the interest was no doubt aided by the three minute flash presentation by the participants prior to the start of the session. Among the posters, molecule-based fluorescent sensors were well-represented in high performance solid-state devices for detection of nitroaromatics and formaldehyde by Isabelle Leray (Cachan) and Romain Dagnélie (Saclay), respectively, while Sandra Pinet's (Pessac) poster described a sensor for acetylcholine in solution. Posters describing the use of substituted anthracenes as organogelificants and photosensitizers as well

as certain structural and dynamic properties were given by Alexandre Olive (Talence), Sylvie Blanc (Pau) and Patrice Bordat (Pau), respectively. Equally, Nadia Chouini-Lalanne (Toulouse) described photosensitization of DNA, Aurélien Trivella (Marseille) described photochemistry in cryogenic matrices, while Jean-Pierre Galaup (Orsay) reported his latest results concerning spectral hole-burning.

The second morning's opening session focussed on solar energy conversion and photocontrolled materials. Chih-Hao Huang (Talence) described self-assembled organic devices derived from hydrogen-bonding fullerenes and electron donors and their application in plastic solar cells. Electron donor-appended fullerenes were then presented as candidates for molecular photovoltaic materials in Stephanie Leroy-Lhez's (Angers) talk, while Luc Brohan (Nantes) took a different approach, basing his work on solar-energy storage on titanium oxide sols and gels. The session concluded with in-depth looks at the role of oxygen in different photochemical processes :- as an inhibitor in photopolymerization reactions by Carole Ecoffet (Mulhouse), singlet oxygen emission in sol-gels by Christophe Cantau (Pau) and oxidative damage in conjugated polymers by Sylvain Chambon (Clermont-Ferrand).

The final session of the eclectic scientific programme was consecrated to sensors and molecular probes for a plethora of analytes. Marie Laurence Dumartin (Pessac) reported three-dimensional fluorescent hosts for acetylcholine, Vincent Souchon (Cachan) focussed on calixarene and podand receptors for the detection of heavy metal ions in water. Patrice Baldeck (Grenoble) described biphotonique techniques and applications in biological media while Philippe Banet (Saclay) reported on optical detection of industrial contaminant boron trifluoride. The meeting concluded with complementary electrochemical and photophysical studies on ferrocene-based sensors by Béatrice Delavaux-Nicot (Toulouse) and Suzanne Fery-Forgues (Toulouse).

As well as the outstanding turnout by French researchers representing a diversity of subjects in photosciences, the success of the meeting was assured by the local organizing committee at the University of Pau, in particular chairman Ross Brown and Sylvie Lacombe. In his closing speech Edmond Amouyal (Palaiseau), the new president of the GFP, showed his appreciation along with all the gathered members, to his predecessor Thu-Hoa Tran-Thi (Saclay) for her three years of sterling service. Undoubtedly many participants are already thinking of how to get to Mulhouse for the next meeting, spring 2007....

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