ST Colloquium

Wednesday 4 June 2014
12.30 p.m.
Lecture Hall Helix STC 001

Prof.dr. Albert Schenning
Laboratory of Functional Organic Materials and Devices,
Department of Chemical Engineering & Chemistry, TU/e

Functional Organic Materials and Devices
Past, Present, Future

The research group Functional Organic Materials and Devices is part of the department of chemistry and chemical engineering and aims at generating new functional organic materials for innovative applications and solution in the areas of sustainable energy, water, air & light management, and personal comfort & healthcare. The group approaches these broad themes with its unique expertise. A complete chain-of-knowledge is applied, spanning from synthesis to device fabrication. The functional materials are made by molecular, nano- & macro-structuring of organics utilizing top-down and bottom-up strategies in which molecular design and synthesis, processing and device integration play important roles. For example, bottom-up structuring of polymers is often performed via self-organization of photopolymerizable liquid crystals into defect-free, monolithic structures with a wide variety of molecular architectures and functionalities. As top-down techniques, photolithography, photoembossing and inkjet printing are often used. The group has extensive expertise in manufacturing and testing of devices on a prototype scale. During my lecture, I will discuss the past, present and future of the Functional Organic Materials and Devices group and will focus on functional organic materials that can be applied as luminescent solar concentrators, actuators, responsive pigments, and nanoporous materials.

Dr. A.P.H.J. Schenning is professor at the Eindhoven University of Technology. His research interests center on functional organic materials. Schenning received his PhD degree at the University of Nijmegen in 1996 on supramolecular architectures based on porphyrin and receptor molecules with dr. M.C. Feiters and prof. dr. R.J.M. Nolte. Between June and December 1996, he was a post-doctoral fellow in the group of prof. dr. E.W. Meijer at Eindhoven University of Technology working on dendrimers. In 1997, he joined the group of prof. dr. F. Diederich at the ETH in Zurich, where he investigated -conjugated oligomers and polymers based on triacetylenes. From 1998 until 2002, he was a Royal Netherlands Academy of Science (KNAW) fellow at Eindhoven University of Technology (Laboratory of Macromolecular and Organic Chemistry) active in the field of supramolecular organization of p-conjugated systems. He received the European Young Investigators Award from the European Heads of Research Councils and the European Science Foundation in 2004, the golden medal of the Royal Dutch Chemical Society in 2005 and a Vici grant from the Netherlands Organisation for Scientific Research (NWO) in 2007.