



Session V: High Performance Pigments

DPP Chemistry – High performance pigment and beyond

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Dr Roman Lenz completed his Diploma in Chemistry in 1991 with Prof B. Giese at Basel. His doctoral research, also under the guidance of Prof Geise, in Physical Organic Chemistry involved study of the mechanism of desoxyribonucleotide biosynthesis. After completing his Ph.D. in 1996, he proceeded to Prof Steven Ley's laboratory at Cambridge for his postdoctoral work on total synthesis of oligosaccharides and green oxidation processes. He joined the Pigment Division of Ciba Specialty Chemicals in 1997 as Laboratory Head where he worked on high-performance pigments, especially diketopyrrolopyrroles (DPP) and functional colorants. He was appointed as Group Leader in Pigment Synthesis in 2003 and as a Ciba R&D Fellow in 2008.



Abstract:

Since their discovery some 30 years ago, diketopyrrolopyrroles (DPPs) have established themselves as one of the most important high performance pigment (HPP) classes in the industry. Their exceptional properties will be discussed and some of the basic principles in pigment development will be highlighted. Recently, the DPP chromophore has also triggered a lot of interest outside the HPP area, and some examples of its potential use in electronic applications will be presented.