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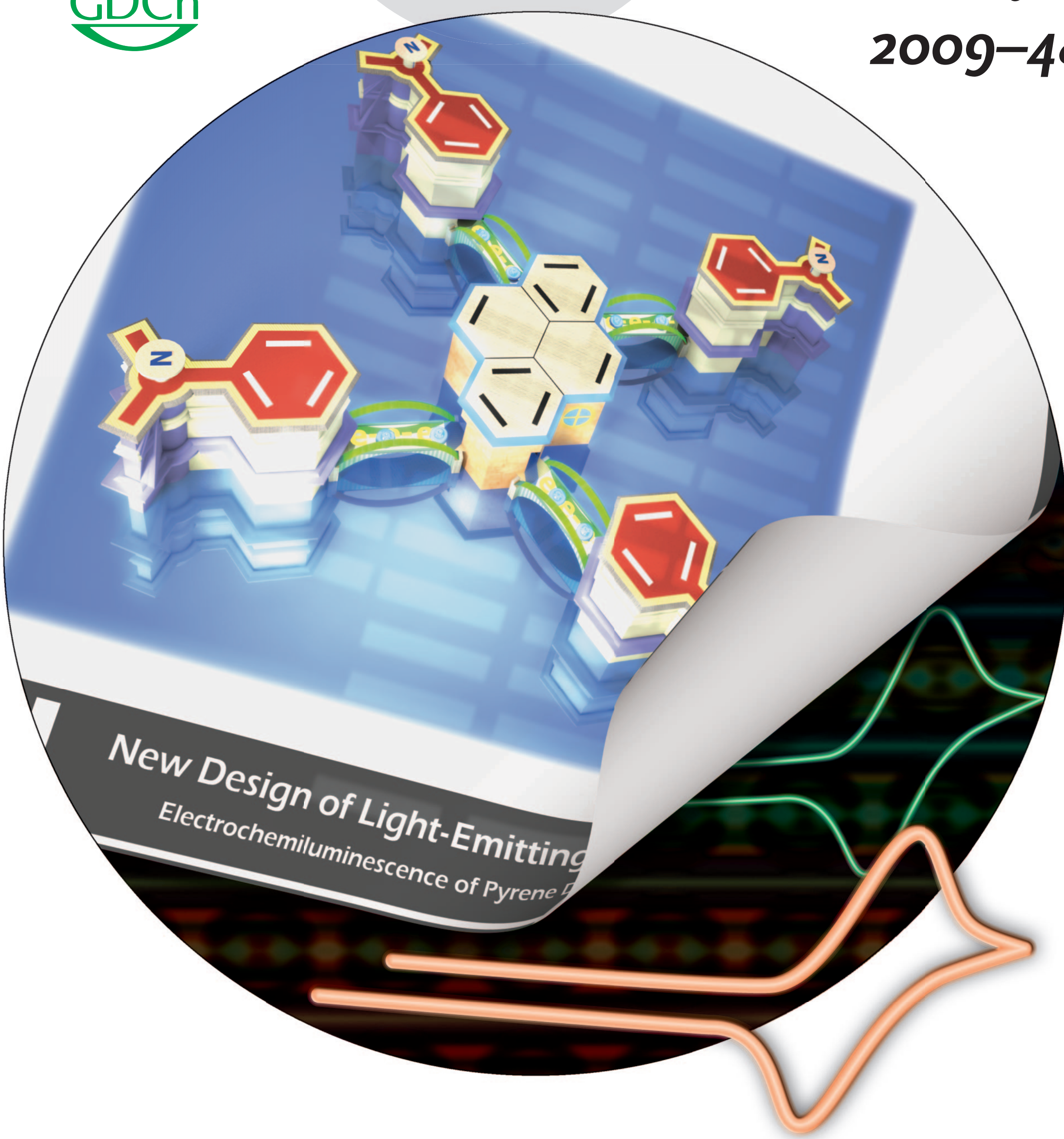

Organic Dyes for Solar Cells
P. Bäuerle et al.

Polyolefin Synthesis
L. R. Sita

Highlights: Carbocyanation · Organic Electronics · C–C Activation

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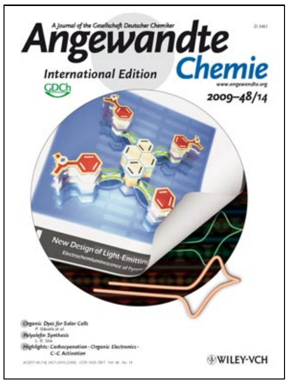
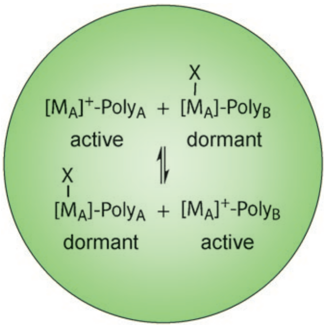
Cover Picture

Jeong-Wook Oh, Yeon Ok Lee, Tae Hyun Kim, Kyoung Chul Ko, Jin Yong Lee,* Hasuck Kim,* and Jong Seung Kim*

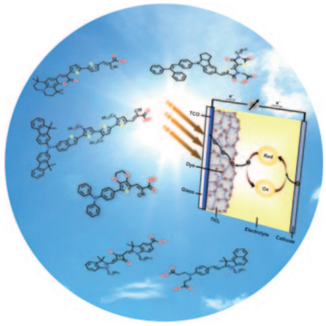


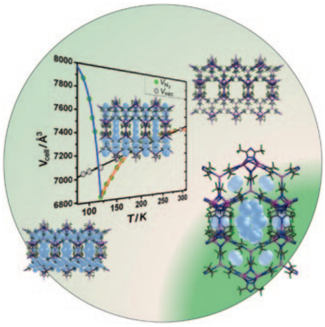
A Powerful Luminophore that comprises a centered pyrene acceptor with peripheral amine multidonors is described by J. S. Kim and co-workers in their Communication on page 2522 ff. The electrochemiluminescence (ECL) efficiency and radical stability of pyrene, a poor ECL luminophore, is markedly improved as the number of peripheral multidonor units is increased in a series of compounds. The ECL enhancement was rationalized by photophysical and electrochemical studies, and theoretical calculations.



Polyolefin Synthesis
Group-transfer reactions form the basis of a new concept in coordination polymerization, which allows the variable synthesis of polyolefin materials. In his Minireview on page 2464 ff., L. R. Sita explains how these processes can be controlled.

Dye-Sensitized Solar Cells
P. Bäuerle and co-workers discuss in their Review on page 2474 ff. the principles for the design of metal-free organic dyes, which can be utilized as sensitizers in solar cells.





Metal–Organic Frameworks
A fluorous metal–organic framework undergoes breathing upon gas uptake, as described by M. A. Omary et al. in their Communication on page 2500 ff. Under N_2 atmosphere, the material exhibits negative thermal expansion; opposite behavior is detected under vacuum.