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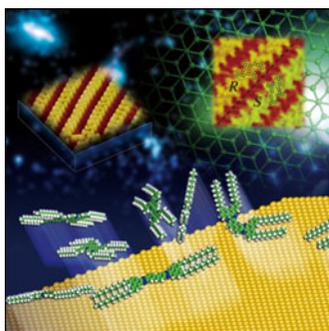
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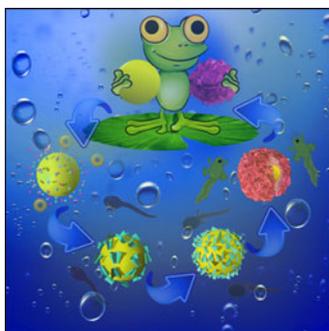

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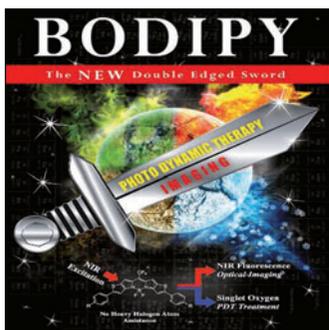
FEATURED ARTICLES

**Scanning Tunneling Microscopy**

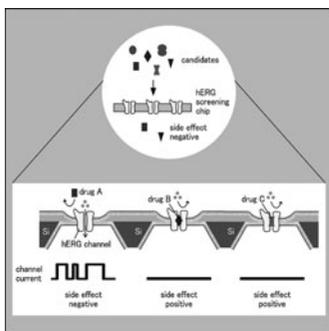
Molecule–substrate interactions can affect the energy-level alignment and electron transport between organic semiconductors and electrodes, and therefore the performance of organic electronic devices. In their Full Paper on page 1311, which is highlighted on the Inside Cover, Dong Wang, Xiaowei Zhan, Francesco Zerbetto et al. demonstrate that an N-heterocyclic aromatic compound adapts substrate-dependent adsorption configurations. The results provide molecular evidence for understanding the interface structures of organic semiconductors on electrode surfaces.

**Nanostructures**

The manipulation of structures at multiple scale levels to achieve hierarchical complex morphologies with various features and attractive properties has become one of the essential aims of nanoscience, nanotechnology, and materials science. In their Full Paper on page 1379, Qingmin Ji, Katsuhiko Ariga et al. report on the transformation of a simple silicate structure into a much more complex spherical structure involving a purely inorganic reaction system. This transformation, with inspiration from the familiar life cycle of frogs, is illustrated on the Inside Back Cover.

**Photodynamic Therapy**

Photodynamic therapy (PDT) is a minimally invasive three-component regimen using light, a photosensitizer (PS), and molecular oxygen. The development of efficient and effective dual-functioning PSs (i.e., fluorescent PSs) stands to offer a more personalized image-guided treatment approach. In their Full Paper on page 1335, highlighted on the Back Cover, Youngjae You, Francis D'Souza et al. report on the discovery and identification of key structure–photophysical property relationships within BODIPY dyes that produce singlet oxygen without heavy halogen atom assistance. The exclusion of heavy atoms maintains their high brightness, which was successfully translated in vivo. The authors also demonstrate the phototoxic power of a lead BODIPY compound through optical-guided photodynamic therapy to effectively control a subcutaneous tumor.

**Microfabrication**

Ion channel proteins play a key role in regulating transmembrane ion flow and have attracted the attention of pharmaceutical investigators as drug targets for use in studies on both therapeutics and side effects. In their Focus Review on page 1266, Ayumi Hirano-Iwata et al. summarize the current technologies that are used in the formation of ion channel-integrated bilayer lipid membranes (BLMs) in microfabricated devices as a potential platform for next-generation drug screening systems. Recent advances in BLM fabrication methodology and functional reconstitution of ion channels in BLMs are discussed.