



第31回 OPERA研究交流セミナー

第30回 ISIT有機光エレクトロニクス研究特別室セミナー

第90回 未来化学創造センターセミナー



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## Influence of molecular orientation in organic electronic devices

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In contrast to their inorganic counterparts, the majority of molecular semiconductors exhibit an additional degree of freedom due to their anisotropic shape, namely molecular orientation. This has a profound impact on the growth behaviour and thus the degree of order found in thin films with consequences for charge carrier transport and as well as for optical properties.

This talk will present different aspects of the influence of molecular ordering and orientation in various types of devices and discuss the consequences for their functioning.

Examples are

- the growth of highly crystalline molecular semiconductors for ambipolar field-effect transistors
- the interplay between crystallinity and efficiency in organic photovoltaic cells
- the influence of the emitter orientation on light-extraction efficiency in organic light-emitting diodes

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