NEW AND VERSATILE WAY TO MULTIFUNCTIONAL[CD,LM]-ANNELATED PERYLENES AND THEIR HOMOLOGUES

Ref-Nr: TA-TM 1026

HINTERGRUND

Extremely versatile and flexible way of manufacturing tetrafunctionalized Pyrenes, Perylenes and higher homologues.

LÖSUNG

Pyrenes and perylenes are well known organic materials with interesting electronic characteristics, e.g. fluorescence, electrical conductivity etc., which make them to be highly interesting compounds for the development of organic electronics. Especially for their application in the field of organic electronics, but also for tailoring their fluorescence-characteristics, it is necessary to have convenient access to multifunctionalized compounds.

Chemical Synthesis, Perylenes, Pyrenes, Organic electronics, Organic dyes, fluorescent Materials, organic field-effect transistors (OFETs), organic light emitting diodes (OLEDs)
VORTEILE

The production method for the multifunctional pyrenes, perylenes and their homologues contains as critical step the usage of the corresponding tosylates, triflates, nonaflates etc. as reactive intermediates, which was unknown before within this class of condensed polyaromatic systems.

By doing so the presented synthetic route gains a huge amount of flexibility and ease of modification which was unknown in perylene- resp. pyrene-chemistry before.

ANWENDUNGSBEREICHE

- Organic electronics
- Organic dyes and pigments