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Molecular organization relationship of low-bandgap polymers at the air-water interface and in solid films

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Highlights

Low-bandgap polymers, PCPDTBT and Si-PCPDTBT, mixed with stearic acid were spread onto water surface at Langmuir trough.

Compressibility modulus showed the presence of liquid-expanded and liquid-condensed phases in the isotherms.

Langmuir-Blodgett and Langmuir-Schaefer techniques are suitable to fabricate organized thin films of low-bandgap polymers.

From cyclic voltammetry and UV-Visible measurements it was possible to determine the energy levels for the low-bandgap polymers.

The low-bandgap polymer films showed photoconductivity effect.

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