



# Synthesis, Electrochemical and Optical Absorption Properties of New Perylene-3,4:9,10-bis(dicarboximide) and Perylene-3,4:9,10-bis(benzimidazole) Derivatives

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Mots-clés	Conducting [3], dyes/pigments [4], Electronic [5], heterocycles [6], Hyperconjugation [7], semiconductors [8]  A series of perylene-3,4:9,10-bis(dicarboximide) (PBI) and perylene-3,4:9,10-bis(benzimidazole) (PTCBI) derivatives that are di- or tetra-substituted at the bay region by electron-donating or electron-withdrawing groups have been synthesized as soluble n-type semiconductors. Optical absorption spectroscopy and electrochemical analysis show that the nature of substitution at the bay region plays a crucial role in the modulation of the electronic properties of these PBI and PTCBI derivatives. Examination of these optical and electrochemical data in the light of energy levels identified by theoretical studies allowed a relationship between the structure and the electronic properties to be established.
Résumé en anglais	
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## Liens

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