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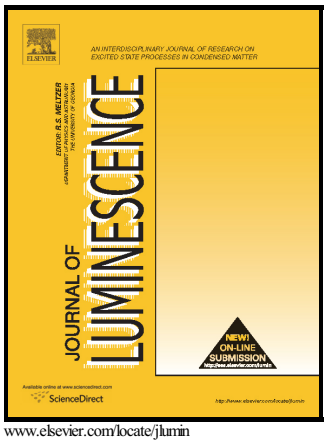

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New core-substituted with electron-donating group 1,8-naphthalimides towards optoelectronic applications

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Abstract: New 1,8-naphthalimides with thiophene or bithiophene structure attached by a imine linkage to naphthalene core were synthesized. The structures of obtained compounds were characterized by FTIR, ^{1}H NMR spectroscopy, elemental analysis and for elected compounds by HRMS (ESI) spectrometry. Thermal, optical and electrochemical properties of obtained 1,8-naphthalimides were investigated. Most of them exhibited glass-forming properties with glass transition temperatures in the range of 73–278 °C. Optical properties of the prepared compounds were examined by UV–Vis and photoluminescence (PL) measurements. They emitted light in chloroform solution with emission maximum at ca. 500 nm with the highest quantum yield of fluorescence around 0.46 and green one in NMP solution. In blend with PMMA blue emission was observed with the

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