

Unsymmetrical Single-Component Nickel 1,2-Dithiolene Complexes with Extended Tetrachalcogenafulvalenedithiolato Ligands

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The unsymmetrical complexes Ni(dmtd)(dmio) and Ni(dmstfdt)(dmio) (dmtd = dimethyltetrathiafulvalenedithiolate, dmstfdt = dimethyldiselenadithiafulvalenedithiolate, dmio = 1,3-dithiol-2-one-4,5-dithiolate) were prepared and characterized analytically and spectroscopically. The complexes exhibit strong third-order nonlinear optical response in the visible and near-infrared spectral regions.

Key words: Metal 1,2-Dithiolenes, Nonlinear Optics, Organic Semiconductors