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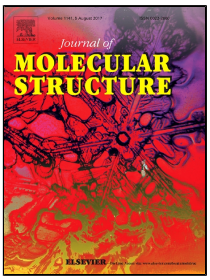

Sulfonated polynaphthalene as an effective and reusable catalyst for the one-pot preparation of amidoalkyl naphthols: DFT and spectroscopic studies

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Highlights

- The application of Sulfonated polynaphthalene (S-PNP) on the synthesis of amidoalkyl naphthols was investigated.
- The thermochemical parameters of reactions were investigated.
- Optimized structure, molecular orbitals, electrostatic potential (ESP) map of three amidoalkyl naphthol derivatives was studied.
- FT-IR spectra and ^{1}H nuclear magnetic resonance (NMR) spectra of selected amidoalkyl naphthols were recorded and compared with the theoretical results.