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SYNTHESIS AND STUDY OF SYMMETRICAL AND ASYMMETRICAL CHROMOPHORES INCORPORATING THE 4H-PYRAN FRAGMENT

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Organic chromophores incorporating arylvinyl fragments are widely used in the organic electronics devices (OLEDs, OFETs). New sets of symmetrical and asymmetrical conjugated structures of $D-\pi-A-\pi-D$ and $D-\pi-A$ ($A-\pi-D-A'-D'$) types have been synthesized. Such spectral characteristics as quantum yields, optical bandgap values and Stokes shifts were determined. Stability towards electrochemical oxidation was also examined; simultaneously the values of HOMO/LUMO energies and electrochemical bandgaps were estimated.

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