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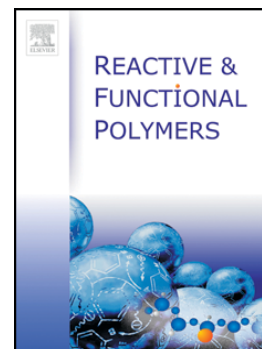
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**New high-solubility aromatic polyesters with pendent phenothiazine:
synthesis, electrochromic and optoelectronic properties**

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Abstract

A series of aromatic polyesters were synthesized from dicarboxylic acids, containing pendent triphenylamine substituted with phenothiazine, and five different kinds of bisphenols. The aromatic polyesters exhibited good solubility in organic solvents due to bulky propeller-like triphenylamine and butterfly-like conformation of phenothiazine, which were convenient for the polymers to fabricate films and devices by spin- or inject-coating. They also revealed good thermal stability with 10% weight lost at 420 °C. In addition, the polymer showed a strong yellow fluorescence at 522 nm in the THF solution and irregular solvatochromic characteristic in polar solvents. Furthermore, their films had well reversible redox process in the range of 0-1.2 V with the color changing from colorless neutral to red in the range of 0.80-0.85 V. The calculated

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