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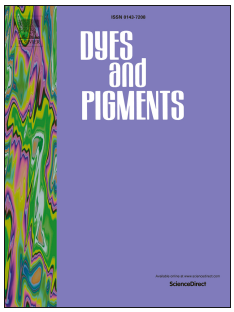

Synthesis, characterization and cell imaging of a new polythiophene derivative

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Synthesis, characterization and cell imaging of a new polythiophene derivative

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Abstract: Fluorescent materials plays an essential role in the biological imaging field. Although numerous fluorescent materials have already been developed, new fluorescent materials with low cytotoxicity and good photostability are still urgently needed. In this work, a new polythiophene derivative PT-HMDA was designed and synthesized. PT-HMDA exhibits well water solubility, excellent photophysical properties, low cytotoxicity, and lysosome-specific cellular location. Thus, it could be a promising and instructive lysosome-specific cell imaging material with orange fluorescence emission.

Key words: Polythiophene derivative; Cell imaging; Lysosome-specific

1. Introduction

Recent years, numerous fluorescent materials have been developed to be applied in cellular imaging, molecular imaging, and medical diagnostics[1-4]. They played an

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