

عنوان مقاله:

Studying of a new polymerisable fluorescent dye containing sulfonamide moiety

محل انتشار:

اولین کنفرانس ملی فرآیندهای گاز و پتروشیمی (سال: 1396)

تعداد صفحات اصل مقاله: 5

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خلاصه مقاله:

The polymerizable fluorescent dye, 4-Allylamino-N-4-amino-N-(2-pyrimidinyl) benzenesulfonamide-1,8-naphthalimide, was successfully synthesized in good yields from intermediate 4-nitro-1,8-naphthalic anhydride. The novel fluorescent dye and its intermediates characterized using Fourier transform infrared spectroscopy (FTIR), differential scanning calorimetry (DSC), ¹HNMR, ¹³CNMR, elemental analysis, UV-Vis spectroscopy and fluorimetry. Their light absorption and fluorescence properties in the solution have been determined and discussed. The results demonstrated that the prepared dye has wavelength maxima in the range of 434 nm in DMF solvent and molar extinction coefficient $1.0 \times 10^4 \text{ l mol}^{-1} \text{ cm}^{-1}$ in DMF. The fluorescence of the new dye was evaluated as DMF solution. The results demonstrated that the synthesized dye had fluorescence properties and emission of the dye was in the visible region at about 528 nm.

کلمات کلیدی:

Synthesis, polymerisable Dye, Characterization, Naphthalimide

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