

研究快报

一种有机磷农药的新型光学分子探针

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摘要 本文设计合成了四核环金属化钯-偶氮配合物(MOP)作为有机磷农药的分辨性光学分子探针, 应用于硫磷类农药组分的分辨性光谱识别.

关键词 [环金属化钯-偶氮配合物](#) [有机磷农药](#) [检测](#)

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A Novel Optical Molecular Probe for Organophosphorus Pesticides

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Abstract A tetranuclear cyclometalated palladium-azo complex(MOP) was synthesized according to our previous work and applied as a differential colorimetric molecular chemosensor for organophosphorus pesticides(OPPs) for the first time. This molecular probe was found to have selective recognition ability to OPPs. In a DMF-acetone mixed solvent, it showed no spectral response to oxophosphate pesticides, but exhibited differential absorption spectra in the presence of different sulfur phosphorus pesticides(SPPs). In MOP sensing solutions, concentrations of different SPPs could be detected down to a level of 10^{-3} g/L by spectrophotometry, which could be used for the determination of SPPs.

Key words [Cyclometalated palladium-azo complex](#) [Organophosphorus pesticides\(OPPs\)](#) [Detection](#)

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