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Kwon Ho	Volume 47, No. 1
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title	Novel TPE Based Luminogen Possessing Aggregation-induced Emission with Mechanochromic Phenomenon for Detection of Hg ²⁺ and Mn ²⁺ in Aqueous Media
green	<p>Nowadays AIE (aggregation-induced emission) and mechanochromic properties are important phenomena. AIE of TPEgens was observed in the presence of good/bad solvents (THF/H₂O) content due to the extensive formation of aggregates.1 The AIE property of TPEgens is examined by using fluorescence measurements in different ratios of the THF-water mixture . Mechanochromic photophysical phenomenon was observed upon applying external stimuli, like grinding, heating, pressing, and fuming respectively.2 In the present work, we have synthesized a novel TPE-based luminogen and fully characterized using different spectroscopic techniques, and applied it as a fluorescent sensor with AIE and mechanochromic photophysical phenomenon. The multi-step targeted synthesis of the derivative was carried out.3 The same molecule showed mechanochromic property with a change in color upon external stimuli. Then the same molecule is applied for mercury and Manganese detection from mixed aqueous media which are potentially very useful for National security, Human Health, and Environment protection. (1) S. Umar et al., J. Org. Chem., 82, 4766 (2017). (2) Y.Q. Dong et al., J. Phys. Chem. Lett., 31, 1 (2015). (3) X. Zhao et al., ACS Sens., 3, 2112 (2018).</p>
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