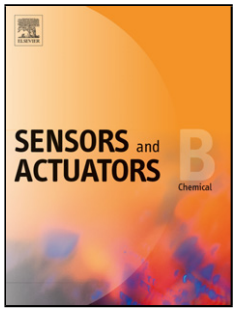

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Rapid synthesis of a hyperfluorescence 2-pyridone derivative as a fluorescent molecular sensor for picric acid

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Highlights

1. The hyperfluorescence TPA was rapidly synthesized by microwave-assisted method in 5 minutes for the first time.
2. TPA has excellent fluorescent property and the fluorescence quantum yield reaches 89.9%.
3. TPA exhibited good aqueous solubility and stability, and was firstly used as fluorescence sensor for selective and sensitive detection of picric acid in aqueous solution.
4. This sensing method permits detection of picric acid in a linear range of 0-45 μM with a detection limit of 56.0 nM. The determination results