Smart Materials: Methods and Applications – 2017 (SMMA-2017) PP18

Very Efficient Colorimetric and FluorimetricChemodosimeter for the Detection of As(III) in Aqueous Environment

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Monitoring As (III) affected water bodies on a regular basis requires a reliable, simple and cost effective testing method. In this report, we describe the synthesis and characterization of fluorescein-derived monomer (FT) and it's norbornene based polymer (Poly-Nor-FT) which is first example of a chemo dosimeter for simple, and efficient detection of As(III) in aqueous environment. FT and Poly-Nor-FT are capable of sensing As³⁺colorimetrically and fluorimetrically and displays a sub-ppb detection limit.