

Seminar Title	: Fluorescent Pyrene Derivative Organic Molecules for Sensing of Bisphenol A
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Abstract	: Organic &pi-conjugated molecules with flexible anchoring groups have attracted significant attention owing to their wide range of applications from optoelectronics to fluorescence-based sensing, switching and imaging. Pyrene derivatives typically show concentration-dependent excimer emission in solution along with high fluorescence emission intensities. In the present research report, a pyrene derivative of malononitrile molecular was reported. Pyrene based molecule, 2-(pyren-1-ylmethylene) malononitrile (PMN) was synthesized using a one-step condensation method, and its potential sensing application in the solid and solution states was explored. As a primary exploration, the photophysical properties of PMN were studied in various solvents of different polarities. The polymer blended thin films of PMN with polyvinylpyrrolidone (PVP) and polymethylmethacrylate (PMMA) were prepared, and the fluorescence emission properties were investigated. As a primary study, the fluorescence emissive behavior of PMN has been performed through fluorescence quenching in the solution phase with Bis Phenol-A.