
Registration Seminar

Seminar Title	: Tri(phenyl-4-yl) amine-based Fluorescent Organic Molecules for Various Sensing Applications
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Venue	: Seminar room, chemistry department.
Date and Time	: 22 Oct 2025 (10:30 AM)
Abstract	: Volatile chlorinated solvents such as dichloromethane, chloroform and carbon tetrachloride are highly toxic to humans and living organisms. Precise detection and discrimination are crucial since they have structural similarities. Similarly, the presence of nitroaromatic explosive molecules in air and drinking water poses significant health risks, including damage to respiratory organs and skin irritation. To address these concerns, we developed a triarylamine-derived fluorescent organic molecule (TBA-HZ) and investigated its ability to sense both chlorinated solvents and nitroaromatic molecules in the solution state. The electroluminescence behaviour of the TBA-HZ molecule was further examined, revealing that when a polymer film doped with TBA-HZ was applied onto a near-ultraviolet LED, it produced a yellowish-white emission. Additionally, a thin layer of TBA-HZ combined with a polymer doped with a red phosphor on a blue LED resulted in a white light emission.