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## SYNTHESIS AND CHARACTERIZATION OF AMPHIPHILIC TRIAZOLE LIGAND AND ITS COMPLEX FOR LIQUID CRYSTALS OF PHOSPHORESCENT TEMPERATURE SENSOR MATERIALS

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Phosphorescent materials have attracted much attention due to their promising applications in sensors, display, optical imaging and drug delivery. Extensive studies have been only reported on the syntheses of trinuclear gold(I) azolate complexes such as imidazolate, pyrazolate and carbeniete. On the other hand, liquid crystal materials with anisotropic properties have been developed based on supramolecular self-assembly of weak non-covalent interactions due to it precise control and easily tunable characteristic for high performance applications. Although single crystal of trinuclear gold(I) triazolate complex has been reported in a solid state with luminescence center at near infrared area (750 nm) at room temperature, no example of phosphorescent amphiphilic trinuclear gold(I) triazolate complex with liquid crystalline properties has been reported for potential applications in near infrared phosphorescent temperature sensor materials. Here we report the successful synthesis of a triazole ligand bearing amphiphilic side chains by reacting methyl gallate with amphiphilic alkyl bromide via Williamson ether substitution reaction (45% yield), followed by hydrolysis (81% yield), and reaction with 4-amino-1,2,4-triazole (23% yield). Complexation with gold salt in Schlenk tube gave an amphiphilic trinuclear gold(I) triazolate complex. The phosphorescent characteristics including the liquid crystalline properties of this metal complex will be discussed later.

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## STUDIES ON ALKALOIDS FROM THE BARKS OF *ALPHONSEA CYLINDRICA* KING.

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The genus *Alphonsea* belongs to the family Annonaceae which comprises of about 30 species growing in the tropical and subtropical areas in Asia. *Alphonsea cylindrica* King. is a tree that