

# INVESTIGATION OF PROPERTIES OF TRIARYLAMINE BASED QUATERNARY AMMONIUM SALTS

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Triphenylamine (TPA) compounds are versatile charge transport materials, demonstrating high emission efficiency and interesting interactions in solid state. Their spectroscopic emission parameters highly depend on surrounding medium owing to strong CT character in solution. Although TPA compounds demonstrate good charge transport capabilities, further optimization via molecular design is required.

In this work, various TPA molecular systems with varying number of additional dimethylamine and phenylethenyl substituents were thoroughly investigated. Additionally, influence of quaternarization of tertiary amine groups in the triphenylamine backbone on emission and electronic properties was analyzed.

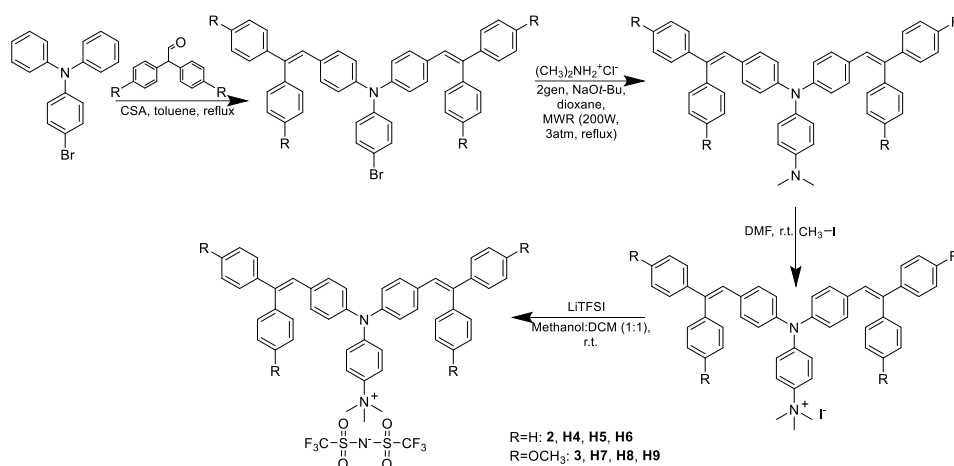


Fig. 1. Synthesis of quaternary ammonium compounds.