

Topologically Diverse New Polycyclic Scaffolds via Key Photochemical Steps

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Phenyl(thio)glyoxal, generated via the Norrish type II fragmentation of phenacylsulfide, undergoes [4+2] cycloaddition with dienes and the photoactive product is further converted via the interrupted Paternò-Büchi reaction channel into a dihydrofuran derivative possessing the oxapentalene core. The reaction can be carried out in one step as the chromophores are nearly identical and the extended cascade is initiated with the same UV LED source.

