

# Organic Chemistry 2020: Comparative Synthesis and Cyclization of 1, 5-Diketone- Lahore Garrison University

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## Abstract

Diketones are found to be extremely reactive due to owing electron deficient carbon atoms of double carbonyls groups and are extensively used for huge range of organic synthesis such as tetracyclones, triazines, inidazoles, quinoxalines, pyrazinones, peroxides, Photoluminescent compounds, cis-jasmone, furan, pyrroles and thiophenes etc. 1, 5-diketone (1, 3, 5-triphenyl-1, 5-pentanedione) has been synthesized by the condensation of acetophenone and benzaldehyde at different reaction conditions while stirring at 25°C. Further, the synthesized 1, 3, 5-triphenyl-1, 5-pentanedione has been condensed with benzil and also cyclized in acidic as well as in basic media to get the product. The progress of reaction was monitored by TLC (thin layer chromatography , Eluent; n-hexane/ethylacetate) visualizing under UV lamp and Iodine bath.

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