

**M.Sc. Semester-IV
Core Course-9 (CC-9)
Synthetic Organic Chemistry**



III. Photochemistry

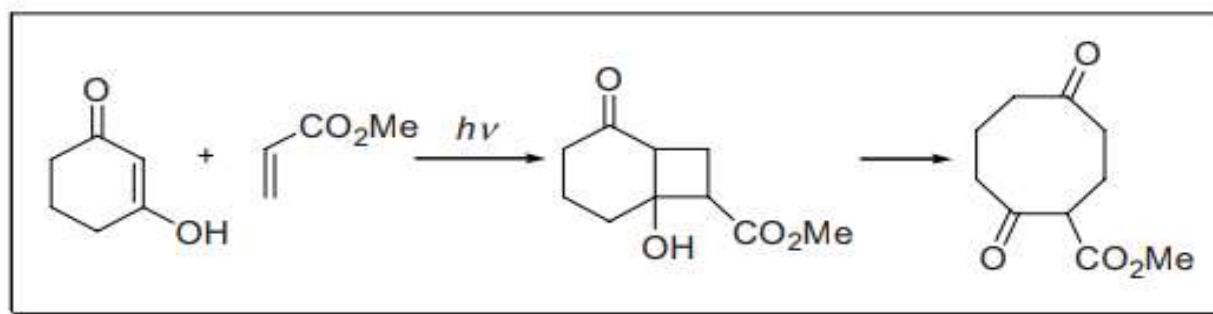
24. The de-Mayo Reaction : Mechanism and Examples



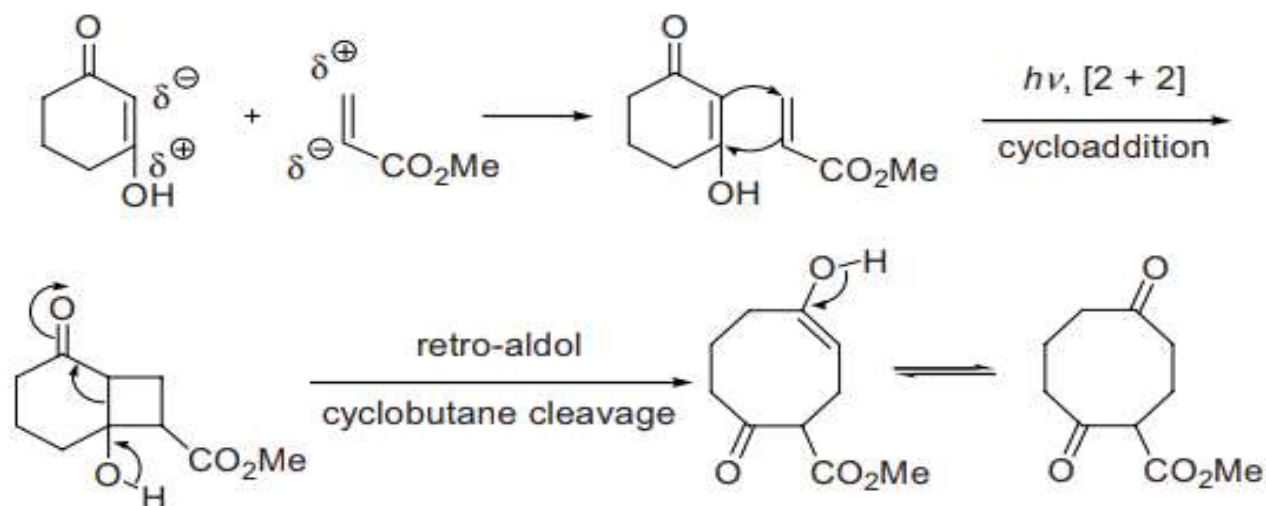
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de Mayo reaction

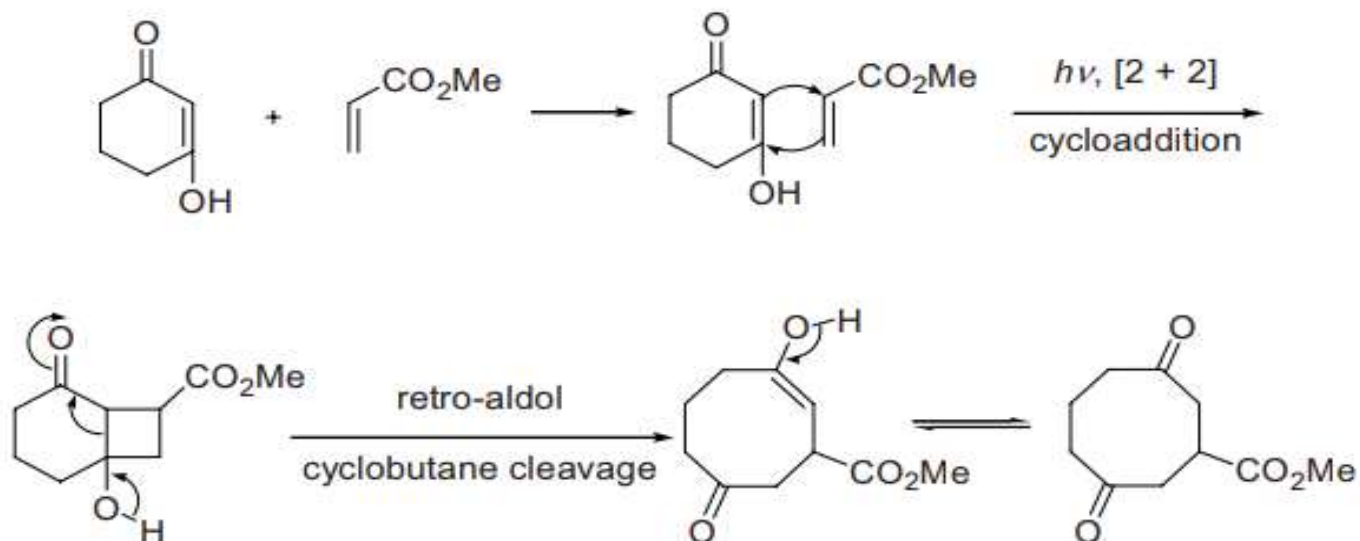
[2 + 2]-Photochemical cyclization of enones with olefins is followed by a retro-aldol reaction to give 1,5-diketones.



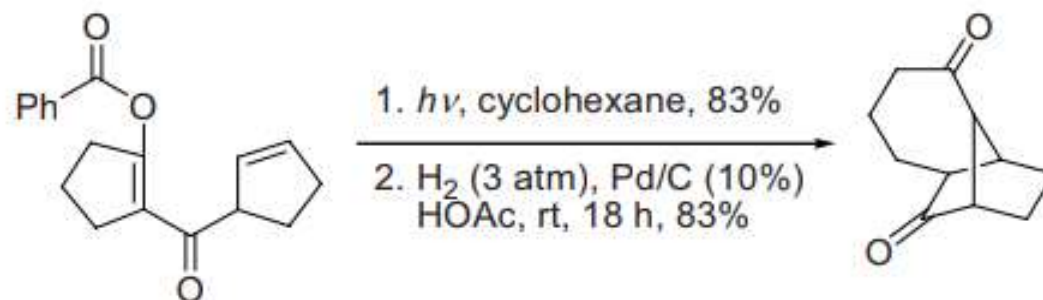
Head-to-tail alignment gives the major product:



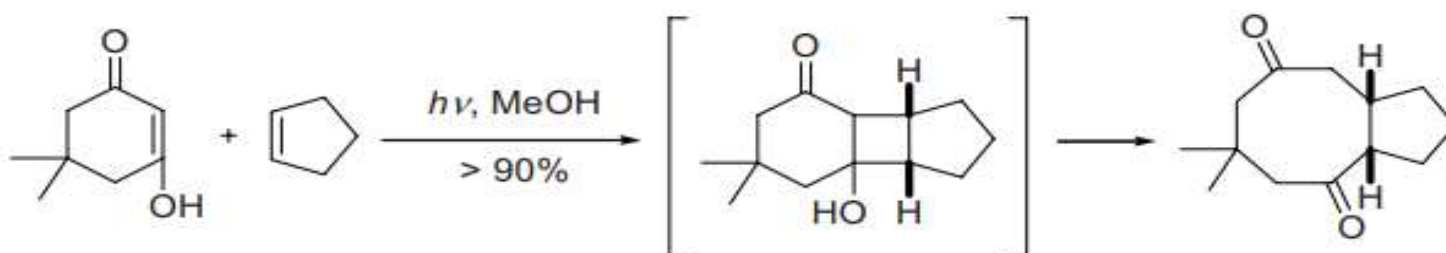
Head-to-head alignment gives the minor regioisomer:



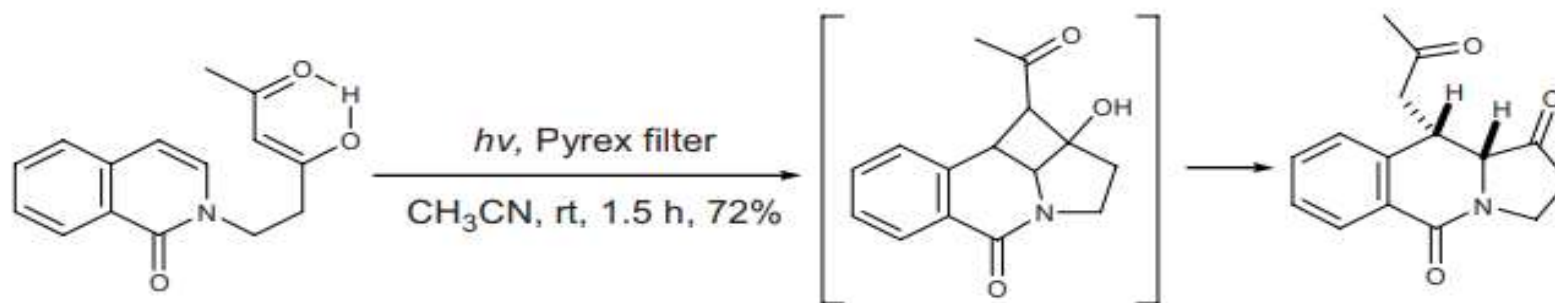
Example 1³



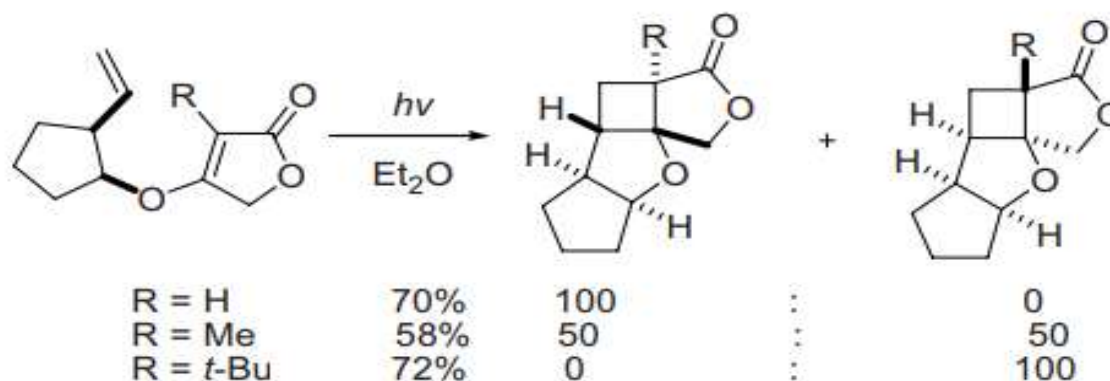
Example 2⁶



Example 3⁹



Example 4¹⁰



References

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