

Equilibration in Photochemical Systems. The Photolysis of a Mixture of α -Diketones in Isopropyl Alcohol

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Summary The photoreduction of mixtures of camphorquinone and tetramethyltetralindione in isopropyl alcohol is independent of initial excitation, on account of equilibration of intermediate semidione radicals.

WE report the results of irradiations of degassed isopropyl alcohol solutions containing camphorquinone (CQ) and

1,1,4,4-tetramethyltetralin-2,3-dione (TTD). The marked differences in absorption spectra of these diones (CQ: ϵ_{366} 0.4, ϵ_{388} 1, ϵ_{404} 5, ϵ_{436} 23, and ϵ_{470} (max) 40; TTD: ϵ_{366} 26.5, ϵ_{388} (max) 33, ϵ_{404} 30, ϵ_{436} 13, and ϵ_{470} 1.5) permit irradiation of both simultaneously, or selective irradiation of either CQ or TTD, and allow the resulting chemical changes to be followed spectroscopically. The results

