

Steady state and laser photolysis studies of keto-enol tautomerizations in 2-alkyl-1,3-diketones having five-membered rings in acetonitrile: Temporal UV-A sunscreen

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The alkyl keto-diketones having five-membered rings undergo photoinduced tautomerization to the enol in acetonitrile. The alkyl enol-diketones, thus formed, undergo thermal tautomerization to the original keto forms in a few days. The alkyl enols show fast internal conversion from the excited singlet state to the ground state without yielding the corresponding isomeric forms (rotamer).