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Title:	Bimodal photocatalytic behaviour of a zinc β -diketiminatone: application to trifluoromethylation reactions
Authors:	Singh, Kirti (/jspui/browse?type=author&value=Singh%2C+Kirti) Singh, Rahul (/jspui/browse?type=author&value=Singh%2C+Rahul) Adhikari, Debashis (/jspui/browse?type=author&value=Adhikari%2C+Debashis) Hazarib, Arijit Singha (/jspui/browse?type=author&value=Hazarib%2C+Arijit+Singha)
Keywords:	Bimodal photocatalytic behaviour zinc β -diketiminatone trifluoromethylation reactions
Issue Date:	2022
Publisher:	Royal Society of Chemistry
Citation:	Chemical Communications, 58(27), 4384-4387.
Abstract:	A photoactive zinc β -diketiminatone complex spans a wide redox window of 3.97 V at its excited state. Having a highly reducing excited-state potential, it generates an electrophilic trifluoromethyl radical by the reductive cleavage of triflyl chloride. This leads to trifluoromethylation of a set of arenes and heteroarenes. During the oxidative quenching of the photocatalyst, a ligand-centered radical cation is formed, which has been detected by spectroelectrochemical EPR measurement.
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