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Title:	Synthesis of some benzofurooxepines' derivatives via [3+2] cycloaddition of epoxide with tethered alkyne: A photochemical approach
Authors:	Khullar, S. (/jspui/browse?type=author&value=Khullar%2C+S.) Mandal, S.K. (/jspui/browse?type=author&value=Mandal%2C+S.K.)
Keywords:	Benzofurooxepinone Tricyclics Benzoyl oxiranes Photochemical approach
Issue Date:	2014
Publisher:	Elsevier B.V.
Citation:	Journal of Photochemistry and Photobiology A: Chemistry, 278, pp.31-38.
Abstract:	A novel, environmentally benign and single-step synthesis of 8-chloro-2-arylbenzo[b]furo[2,3-e]oxepin-10(4H)-ones by the photochemical irradiation of 2-{5-chloro-2-(prop-2-ynyloxy)benzoyl}-3-aryloxiranes has been developed. Some of these substrates also furnished hydroxyalkenones alongside. The formation of oxepinones as major products from these substrates has been envisioned to occur through the heterolytic CC bond cleavage of epoxide, the oxirane ring giving carbonyl ylide intermediates followed by the furo-oxepinone ring formation via [3+2] cycloaddition while the hydroxyalkenones' formation as minor products takes place through the initial β -H abstraction followed by oxirane ring opening.
Description:	Only IISERM authors are available in the record.
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