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(54) Title: IMPROVED PREPARATION OF CHALCONE DERIVATIVES

(57) Abstract: The invention relates to methods for producing chalcone (1,3-diphenylprop-2-en-1-one) derivatives that have multiple substitutions on a phenyl ring. Intermediate chalcone derivatives are modified by Phase Transfer Catalysis (PTC) for introducing a substituted alkyl group that is provided by a sulfonic acid derivative on a phenyl ring already containing substituent groups on one or two carbon atoms adjacent to the carbon atom where a substituent group is being introduced. The methods of the invention allow producing efficiently, by either S-alkylation or O-alkylation, chalcones derivatives that are characterized for their biological activities that are intermediate compounds for producing molecules having such activities, or that can be used for generating libraries of compounds to be screened by means of in vitro and/or in vivo assays and establishing structure-activity relationships.



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