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REACTIONS OF α , β -EPOXYSULFONES WITH AMINES. SYNTHESIS OF INDOLES, ENEDIAMINES AND β -SULFONYLENAMINES

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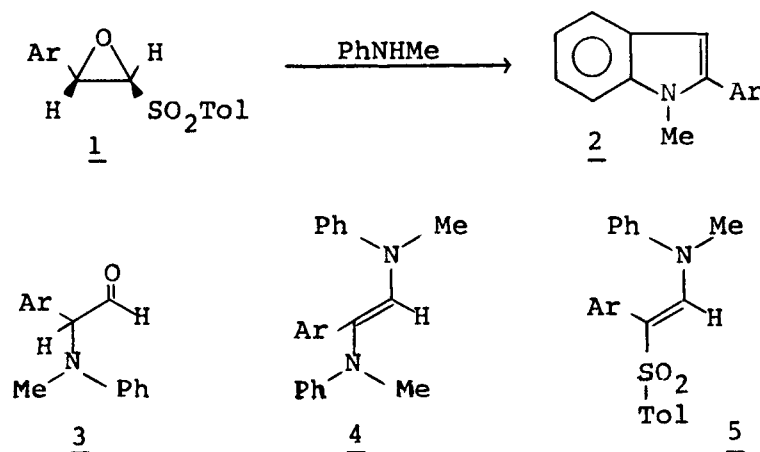
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REACTIONS OF α, β -EPOXYSULFONES WITH AMINES.
SYNTHESIS OF INDOLES, ENEDIAMINES AND β -SULFONYLENAMINES.

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Epoxysulfones are readily accessible by a Darzens condensation of aldehydes or ketones with chloromethylsulfones using phase transfer conditions. Reactions of epoxysulfones 1 with N-methylaniline in refluxing ethanol result in the formation of indoles 2. In order to rationalize this



conversion the initial formation of the aldehydes 3 is proposed, which in a subsequent reaction with N-methylaniline lead to the intermediate enediamines 4. By treatment of 1 with amine under modified conditions these enediamines 4 indeed could be isolated. Furthermore, the epoxides 1 yield β -sulfonylenamines 5 when treated with secondary amines in the presence of an acid catalyst.

The synthesis of 2, 4 and 5 will be discussed in detail.