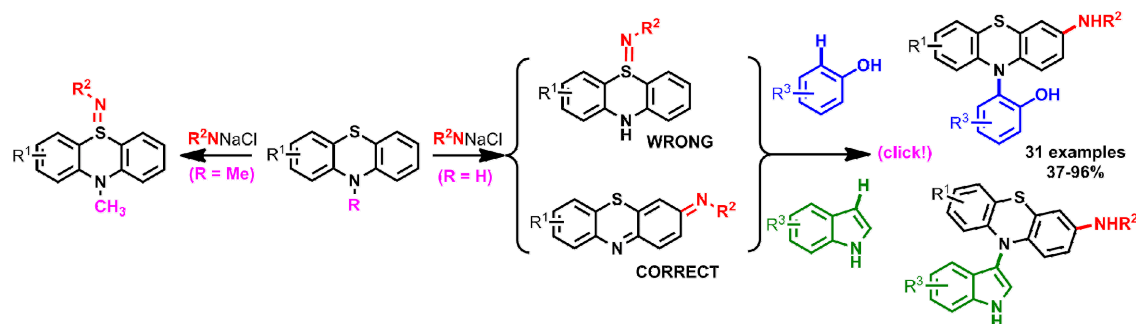


PHENOTHIAZINIMIDES: ATOM-EFFICIENT ELECTROPHILIC AMINATION REAGENTS

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In the frame of our research interests [1-3] for the development of ultra-simple direct C-H amination methods, we decided to investigate the unexplored reactivity of phenothiazinimides, in particular as electrophilic amination reagents. In 1977, Shah utilized a known synthesis of sulfimides to prepare what he thought to be sulfimide-phenothiazine [4]. In 1979 however, Gontar claimed that Shah's structure could not be correct because of the absence of NH band in the IR spectrum [5]. Gontar proposed, instead, a carbon-based phenothiazinimide interpretation. Here, the reactivity of phenothiazinimides is described for the first time. This fairly unknown class of imines was found to be very reactive as ultra-simple atom-efficient electrophilic amination reagents for phenols and indoles under metal-free conditions (see scheme 1) [6].



Scheme 1: Synthesis of Phenothiazinimides as atom-efficient electrophilic amination reagents for phenols and indoles.

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