LITERATURE CITED

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FREE RADICAL AMIDOMETHYLATION OF INDOLES WITH AZOMETHINES IN THE

PRESENCE OF ACYLATING AGENTS AND ZINC DUST

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We have found that on reacting zinc dust with the N-acylimmonium cation (I), obtained by the interaction of azomethines with acylating agents, the radicals (II) are formed which recombine but on adding nucleophilic aromatic or heterocyclic compounds to the reaction medium they may act as amidomethylating agents.

$$\begin{array}{c} C_{6}H_{5}CH = NR & \begin{array}{c} Ac_{2}O \\ \\ COCH_{3} \end{array} & \begin{array}{c} C_{6}H_{5}CH = \stackrel{\bullet}{N}R \\ \\ COCH_{3} \end{array} & \begin{array}{c} C_{6}H_{5}CH - NR \\ \\ COCH_{3} \end{array} & \begin{array}{c} COCH_{3} \\ \\ COCH_{3} \end{array} & \begin{array}{c} CH - NR \\ \\ COCH_{3} \end{array} & \begin{array}{c} CH - NR \\ \\ COCH_{3} \end{array} & \begin{array}{c} CH - NR \\ \\ R'' \end{array} & \begin{array}{c} COCH_{3} \\ \\ \\ R'' \end{array} & \begin{array}{c} COCH_{3} \\ \\ \\ \end{array} & \begin{array}{c} COCH_{3} \\ \\ \end{array} & \begin{array}{c} COCH_{3} \\ \\ \\ \end{array} & \begin{array}{c} COCH_{3} \\ \\ \end{array} & \begin{array}{c} COCH_{3} \\ \\ \\ \end{array} & \begin{array}{c} COCH_{3} \\ \\ \\ \end{array} & \begin{array}{c} COCH_{3} \\ \\ \\ \end{array} & \begin{array}{c} COCH_{3} \\ \\ \end{array} & \begin{array}{c} COCH_{3} \\ \\ \end{array} & \begin{array}{c} COCH_{3}$$

Thus we obtained diaminoethane derivatives (III) and 3-amidoethylindoles (IVa-e) from azomethines and indoles. For the products: R, R', R', mp, °C: a) C_6H_5 , H, H, 150-152; b) CH_3 , H, H, 146-148; c) CH_3 , CH₃, H, 184-186; d) CH_3 , H, CH_3 , 97-99; e) C_6H_5 , H, CH_3 , 93-95. The structure of indoles (IV) were confirmed by elemental analysis and IR spectra.

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