

# Base Catalyzed Synthesis of Novel Fused-Imidazoles from *N*-Vinyl-1*H*-imidazole

Ashraf A. Aly

Chemistry Department, Faculty of Science, El-Minia University, El-Minia, A. R. Egypt

Reprint requests to Dr. Ashraf A. Aly. Fax: +2086346876. E-mail: ashraf160@yahoo.com

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Syntheses of various classes of fused-imidazoles are reported. The key to their successful synthesis depends on the reaction of *N*-vinyl-1*H*-imidazole with the  $\pi$ -deficient compounds under basic conditions. Reaction of the target imidazole with 1,1,2,2-tetracyanoethylene and dimethyl acetylenedicarboxylate afforded pyrrolo[1,2-*a*]imidazoles. On the other site, reaction of the target imidazole with 2-dicyanomethyleneindane-1,3-dione, 2,3-dicyano-1,4-naphthoquinone gave indanylimidazolo[1,2-*a*]azepine and imidazolo[2,1-*a*]phenanthridine derivatives, respectively. Under basic reaction condition, various classes of imidazolo[2,1-*a*]isoquinolines were obtained by the reaction of *N*-vinyl-1*H*-imidazole with 2,3,5,6-tetrachloro-1,4-benzoquinone, 2,3-dichloro-1,4-naphthoquinone, 2,3-dichloro-5,6-dicyano-1,4-benzoquinone and 3,4,5,6-tetrachloro-1,2-benzoquinone.

*Key words:* *N*-Vinyl-1*H*-imidazole, Base Catalysis,  $\pi$ -Deficients, Fused-Imidazoles