Syntheses of New Pyridoxazines, Benzoxa(thia)azines, and Benzoxa(thia)azepines via Cyclocondensation and Elimination Reactions between Donors and Acceptors

Ashraf A. Aly, Alaa A. Hassan, Kamal M. El-Shaieb, and Rafaat M. Shaker
Chemistry Department, Faculty of Science, El-Minia University, El-Minia, Egypt
Reprint requests to Dr. Ashraf A. Aly. Fax: +20862346876. E-mail: ashraf160@yahoo.com

Z. Naturforsch. 60b, 999 – 1005 (2005); received March 7, 2005

Reaction of 3-amino-2-hydroxypyridine and 2-amino(thio)phenols with various selected $\pi$-acceptors are herein reported. Different modes of cyclization via elimination and/or condensation reactions were observed during the reaction of the donors with 3,4,5,6-tetrachloro-1,2-benzoquinone (CHL-$o$), 2,3,5,6-tetrachloro-1,4-benzoquinone (CHL-$p$), 2,3-dicyano-1,4-naphthoquinone (DCNQ) and 2-dicyanomethyleneindane-1,3-dione (CNIND). A series of pyridoxazines, benzoxa(thia)azines, benzoxa(thia)azepines has been synthesized in good yields.

Key words: 2-Amino(thio)phenols, 3-Amino-2-hydroxypyridine, $\pi$-Acceptors, Pyridoxazines, Benzoxa(thia)azines, Benzoxa(thia)azepines