Synthesis of 9-Methoxy and 9-Acetoxy-3-amino-1-(4-methoxyphenyl)-1H-benzo[f]chromene-2-carbonitriles via 2-(Imino-piperidin-1-yl-methyl)-3-(4-methoxyphenyl)acrylonitrile as Intermediate

Ahmed M. El-Agrody, Fathy A. Eid, Hussein A. Emam, Hany M. Mohamed, and Ahmed H. Bedair

Chemistry Department, Faculty of Science, Al-Azhar University, Nasr City 11884, Cairo Egypt

Reprint requests to Dr. Ahmed M. El-Agrody. E-mail: elagrody-am@yahoo.com

Z. Naturforsch. 57b, 579–585 (2002); received September 14, 2001

Nitriles, Benzo[f]chromenes, Heterocyclic Organic Synthesis

Several new 1H-benzo[f]chromene derivatives (3a–d) were prepared by the reaction of 7-substituted-2-naphthols (1a,b) with substituted α-cyano-4-methoxycinnamionitriles (2a,b) together with 2-(imino-piperidin-1-yl-methyl)-3-(4-methoxyphenyl)acrylonitrile (4) as intermediate. Also, the reaction of 1a,b with 4 without catalyst afforded 9-methoxy and 9-acetoxy-3-amino-1-(p-methoxyphenyl)-1H-benzo[f]chromene-2-carbonitrile (3b,e). The reaction of 3a,b with different electrophilic and nucleophilic reagents afforded the 12H-7-oxa-8,10-diaza-benzo[a]anthracene derivatives 5, 9, 10 and 1H-benzo[f]chromene derivatives 6–8, 11.