Synthesis and Structure of Alkyl-α-arylamino-β-bromo-β-nitroacrylates, New Functionalized β-Nitroenamines

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Abstract—New bromonitroenamine compounds, alkyl-2-arylamino-3-bromo-3-nitroacrylates, were synthesized and characterized using IR, UV, ¹H and ¹³C NMR spectroscopy, and X-ray analysis. Their molecules were found to have the *E*-configuration and to exist as highly conjugated structures. According to the X-ray analysis, in the ethyl-3-bromo-2-(*p*-bromophenylamino)-3-nitroacrylate molecule the bromonitroenamine moiety is almost planar, the ester group is located completely out of the C=C double bond plane, amino hydrogen and nitro oxygen atoms form an intramolecular hydrogen bond.

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