Synthesis and Single Crystal X-Ray Structure of Bis[4-oxo-3-(2-ethoxycarbonylphenyl)-3,4-dihydroquinoxalin-2-yl]disulfide

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Diethyl 2,2′-thiocarbonyl-bis(azanediyl)dibenzoate was synthesized from the reaction of ethyl anthranilate with thiophosgene. Its treatment with sodium ethoxide in ethanol at room temperature gave ethyl 2-(4-oxo-2-thioxo-1,2-dihydroquinoxalin-3(4H)-yl) benzoate, whereas in the presence of ethyl nitroacetate and under the same reaction conditions, the corresponding bis(quinoxalin)disulfide was formed. Its structure was confirmed by IR, 1H and 13C NMR spectroscopy elemental analysis and single crystal X-ray structure determination.

Key words: Thiophosgene, Ethyl Anthranilate, Ethyl Nitroacetate, Disulfide, Single Crystal X-Ray Structure