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Synthesis of Some More Fluorine Heterocyclic Nitrogen Systems Derived From Sulfa Drugs as Photochemical Probe Agents for Inhibition of Vitiligo Disease-Part I

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Abstract: Some more new bioactive fluorine heterocyclic systems containing sulfur and nitrogen as five-membered rings: pyrazoline, imidazole, imidazolopyrimidine, thiazolidinone and 1,2,4-triazole derivatives (**3-13**) have been synthetically derived from the interaction of sulfa drugs with fluorine aromatic aldehyde and/or hexa fluoroacetic anhydride followed by heterocyclization reactions. Former structures of the targets have been deduced upon the help of elemental and spectral data.. Compounds **7a-f, 10c** and **13** could be used as photochemical probe agents for inhibition of Vitiligo diseases, in compare with Nystatin and Nalidixic acid.

Keywords: Synthetic, Fluoroheterocyclic, Inhibition of Vitiligo.

Introduction

In recent years, human pathogenic microorganisms have developed resistance in response to indiscriminate use of commercial antimicrobial drugs commonly employed in the treatment of infectious diseases[1]. On the other hand, fluorine organic and sulfa-compounds exhibited a wide-range of pharmaceutical properties, in addition, a large number of heterocyclic nitrogen systems showed biological activities as anti HIV and anticancer agents[2-6]. Thus, the present work mainly aims synthesis of various fluorinated heterocyclic systems via combination of both fluorine compounds and sulfa drugs in view of their use as photochemical probe agents for inhibition of Vitiligo disease in compare with nystatin and nalydixic acid.

Experimental

Melting points were determined with an electrochemical Bibby Stuart Scientific melting point SMP (US) apparatus. IR spectra recorded for KBr disc on a Perkin Lemer Spectrum RXI FT-IR system No. 55529. H^1 NMR were determined for solution in deuterated DMSO with a