



**SYNTHESIS OF 4-[5-(4-PHENYL-5-SUBSTITUTEDIMINO-1, 2, 4-DI-THIAZOLO)]
IMINO-1, 2, 4-THIADIAZOLO-PYRIDINES (IIIa-e)**

S.G. Khobragade^a, D.T.Tayade^b, N.S.Dixit^c

^aDepartment of Chemistry, Brijlal Biyani Science College, Amravati 444 605.

^bDepartment of Chemistry, Govt. Vidarbha Institute of Science and Humanities, Amravati 444 604.

^cDepartment of Chemistry, G.S.Tompe Arts, Commerce and Science college, Chandur Bazar, Amravati
(M.S.) India

Email: - nidhi_achalpur@rediffmail.com, sgkhobragade29@gmail.com

Abstract:

New series of 4-[5-(4-phenyl-5-substitutedimino-1,2,4-dithiazolo)]imino-1,2,4-thia-diazolopyridines (IIIa-e) was successfully synthesis by the interactions of 4-(5-phenylthio-carbamido)-1,2,4-thiadiazolopyridines (I) with various isothiocarbamoylchloride (IIa-e) in acetone medium. Synthesized compounds were recrystallised and their structures were justified and established on the basis of elemental analysis, chemical characteristic and through spectral studies.

Introduction:

Literature survey reveals that dithiazolo, thiadiazolo nucleus containing drugs possess an important applications and significances in industrial, medicinal, drug, pharmaceutical, agricultural and biotechnological sciences¹⁻⁵. Dithiazolo nucleus containing drugs are widely used as chemotherapy for cancer⁶⁻⁷ and anti-HIV drugs⁸, they showed various biological activities⁹⁻¹¹ such as anti-tumor¹², anti-tuberculosis¹³, antidibetic¹⁴, antiviral¹⁵, anti-fungal¹⁶, anti-hypertensive¹⁷ and anti-histamatic¹⁸. It was also noticed that this dithizines is used as additive in lubricating oil¹⁹ and possess brightening, finishing properties in textile²⁰⁻²³.

Important reactions of substituted isothiocarbamoylchlorides involving nucleophilic displacement of both chlorine atoms have been briefly investigated by Tayade²⁴, Deohate²⁵, Pandey²⁶, Pathe²⁷, Berad²⁸ and Aparajit²⁹. In the viewed of utility and impotance of these compounds