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Analysis of 2-R5-oxo 5H6-Ethylcorloxy late 7-Phenyl-1,3,4-thiadiazolo-(3,2,-a) pyrizmizdine with amine

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Abstract
This paper present Synthesis of 2-R5-oxo 5-H-6-Carboxamind 7-Phenyl 1, 3, 4-thiadiazolo-(3, 2-a) Pyrimidine through response of 2-R 5-oxo 5-H 6. Ethyl Carboxilate 7-Phenyl-1, 3, 4 Thiadiazolo-(3,2-a) pyrimidine with amine. The structures of the mixes got are set NMR, 13C, IR-spectroscopy.

Keywords: 2-R5-oxo 5H6-Ethylcorloxy late 7-Phenyl-1,3,4-thiadiazolo-(3,2,-a) pyrizmizdine

Introduction
Consolidated subsidiaries of 1, 3, 4-thiadizolo[3,2-a]pyrimidinewere answered to have a broadspectrum of organic activity[1-4], including antibacterial, antitumor, fungicidal, and herbicidal properties. Be that as it may, thiadiazoles and their dense analogs are still in adequately contemplates. In continuation of the quest for substances having expanded capacity to penetrate through organic films of different irresistible species[5-7] and, specifically, for the new antibacterial medications in these homologous arrangement of mixes.

The presentation of a substituent at position 6 of the 1,3,4-thiadiazolo [3, 2-a] pyrimidine framework effectively improves the physiological movement of the oleculef[8-10]. This substitution happens in the responses of 1,3,4-thiadiazolo [3,2-a] pyrimidine subsidiaries withelectrophiles[11-15]. In the present work, we examined the conceivable outcomes of the synthesie of different subordinates of 1,3,4-thiadiazolo [3,2-a] pyrimidine.

In First we have synthesized 2-R5-oxo5-H6- Ethyl Carboxilate7-phenyl[1,3,4] thiadiazolo[3,2-thiadiazolo(1) and ethyl 2-formyl 3- okco 3- phenyl propanoate(2). (figure 1)

And more2-R5-oxo5-H6-Ethyl Carboxilate 7-phenyl[1,3,4]thiadiazolo[3,2,-a] pyrimidine reacted with amine(4) until produced 2-R 5-oxo 5-H 6- Carboxamid 7-phenyl 1,3,4-thiadiazolo-[3,2-a] pyrimidine(5). (Figure 2)

In this regard synthes of 2-R 5oxo 5-H 6-Carboxamid 7-phenyl -1,3,4-thiadiazolo[3,2-a] pyrimidinedo with The aim of 2-R 5-oxo 5-H 6-ethylcarboxylate 7-phenyl 1,3,4-thiadiazolo [3,2,-a] pyrimidine and amin in present solvent C^2H^5OH.

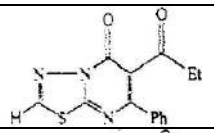
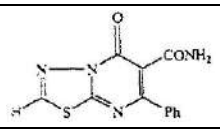
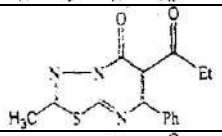
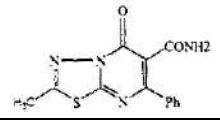
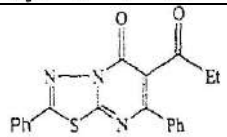
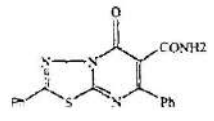
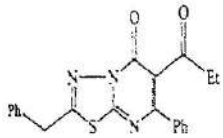
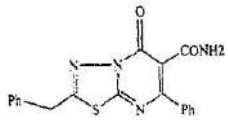
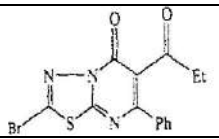
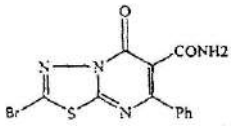
Result and discussion
First, we tried synthesis of 2-R 5-oxo 5-H 6-Carboxamid 7-phenyl -1,3,4-thiadiazolo [3,2-a] pyrimidine with 2-R 5-oxo 5-H 6-ethylcarboxylate 7-phenyl 1,3,4-thiadiazolo [3,2-a] pyrimidine and amin in various Alcohol. The reaction performed in the presence of Alcohol shown in Table-1, this reaction does not take a in the present of catalyst. To show the generality and applicability of this procedure, we treated a wide variety of 2-R 5-oxo

Table 1: Optimization of the reaction conditions

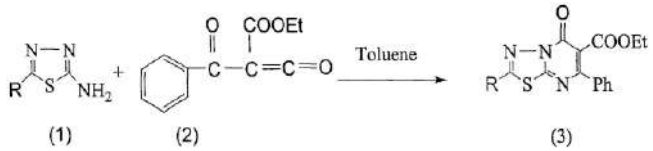
Entry	Solvent	Time(h)	Yield[a](%)
1	H_2O	8	20
2	CH_3OH	4	85
3	C_2H_5OH	4	95
4	C_3H_2OH	5	60
5	C_4H_9OH	6	50

[a]Yields refer to isolated pure products

Table 2: Synthesis of 2-R 5-oxo 5-H 6-Carboxamid 7-phenyl -1,3,4-thiadiazolo [3,2-a] pyrimidine with 2-R 5-oxo 5-H 6-ethylcarboxylate 7- phenyl 1,3,4- thiadiazolo [3,2-a] pyrimidine and amina

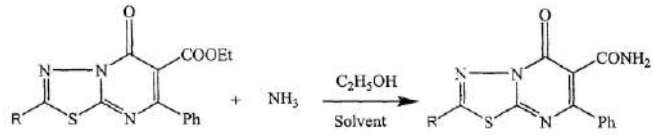
Entry	Thiadiazol	Amin	Product	Time(h)	Yieldb(%)
1		NH_3		6	82
2		NH_3		8	85
3		NH_3		7	85
4		NH_3		6	90
5		NH_3		5	90

a Reaction were carried out with 2-R 5-0xo 5-H 6-ethylcarboxylate 7-phenyl 1,3,4-thiadiazolo [3,2-a] pyrimidine and amin
b Yields refer to isolate pure products.



R: (H_1 CH_3PH-, $PHCH_2$, BR)

Fig 1: Synthesis of 2-R7-phenyl 6-ethylcarboxylate 5-oxo 5-H 1,3,4-thiadiazolo [3,2-a] pyrimidine



R: (H,CH_3, Ph-, $PhCH_2$- Br)

Fig 2: Syntheses of 2-R 5-oxo 5-H 6Carboxamid 7-phenyl -1,3,4-thladlazolo [3,2-a] pyrimidine

5-H 6-ethylcarboxylate 7-phenyl 1,3,4-thiadiazolo [3,2-a] pyrimidine and amin in the presence of alcohol ethanol at 78^0C and obtained the desirable products in good to excellent yields (Table 2).

Experimental

A mixture of 2-R 5-oxo 5-H- 6-ethylcarboxylate 7-phenyl 1,3,4-thiadiazolo [3,2-a] pyrimidine (1 mmol), amin (1 mmol) was strred magnetically at 78^0C and the progress of the reaction was monitored by thin-layer chromatography (TLC). The reaction mixture was filtered. In all the cases, the product obtained after the usual work up gave satisfactory spectral data. 2-H 5oxo 5-H 6-Carboxamid 7-phenyl-1,3,4 thiadiazolo [3,2-a] pyrimidine: ^{1}H NMR (400 MHz, $CDCI_3$ δ ppm): 6 (s, 2H, NH2); 7.14-7.30 (5H,PH); 7.50 (S,H). ^{13}C NMR (100 MHZ, $CDCI_3$, δ ppm):118 (C), 126,4 (CH), 128(CH), 128.7(CH), 128.7(CH), 136.9(C), 140 (C), 162,1(C), 163(C), 168(C), 172,6.

Conclusion

All in all, the liquor has been utilized as a mellow, and profoundly proficient dissolvable framework for the advantageous readiness of 2-R 5-oxo 5-H 6-Carboxamid 7-phenyl - 1,3,4-thiadiazolo [3,2-a] pyrimidine in brilliant yields from 2-R 5-oxo 5-H 6-ethylcarboxylate 7-phenyl 1,3,4-thiadiazolo [3,2-a] pyrimidine and amin. Likewise minimal effort, recyclable dissolvable framework. The bit of leeway incorporate ease, mellow response condition and responses completed at room temperature with magnificent yields.

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