Synthesis of new derivatives of 2-Substitueted 4-(4-methyl-12H-pyrimido[4',5':5,6][1,4]thiazino[2,3-b]quinoxalin-2-yl)

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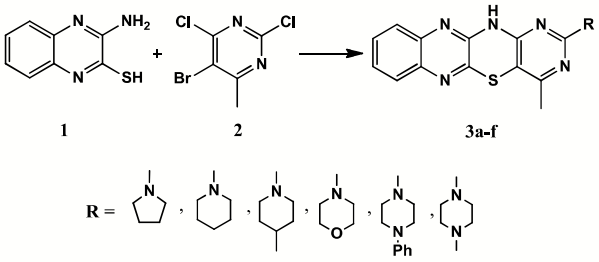
Nitrogen-containing heterocycles are undoubtedly one of the most important targets in organic chemistry. They are widely distributed in natural products and in pharmaceutical agents, and numerous studies for their chemistry and synthesis have been reported.

Thiazinoquinoxaline derivatives are an important class of heterocyclic compounds that exhibit a broad spectrum of biological activities such as antifungal, antibacterial, antimicrobial, antihypertensive[1,2],anti-inflammatory[3], calcium antagonistic, vasopressin receptor antagonistic [4], and anticancer activityes [5]. These compounds are also calcium channel blockers and Na/H exchange inhibitoragents [6].

In this study we have described the synthesis of six novel of2-substitueted 4-(4-methyl-12H-pyrimido[4',5':5,6][1,4]thiazino[2,3-b]quinoxalin-2-yl) **(3a–f)** wherein the biologically active thiazinoquinoxalinemoiety is fused to a potent pyrimidine ring across the 2,3-positions (Scheme 1).



Scheme 1.

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