



Optimization of Active 1, 5-Benzothiazepine Derivatives by Design of Experimental (DOE) Studies

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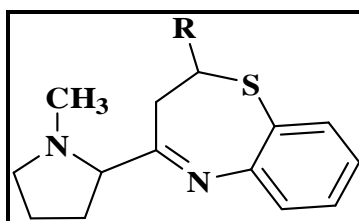
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ABSTRACT

Optimised Synthesis of 1,5-Benzothiazepinederivatives (1a-1f) using numerous bases through a condensation reaction between 1-(1-methyl-1H-pyrrol-2-yl)-3-(substituted)-2-propen-1-one and 2-Aminothiophenol in various solvents have been studied. Favourable conditions for the preparation of derivatives of 1,5-Benzothiazepinewere established by Design of Experiments (DOE). These 1,5-Benzothiazepinederivatives (1a-1f) were prepared with good-to-excellent yields and have been investigated in detail.

Graphical Abstract



Keywords: 1,5-Benzothiazepine, 2-Aminothiophenol, Design of experiment, Screening, Standard matrix array, Quality by Design.