

Synthesis and Characterization of a Novel Azetidine Derivative

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Abstract: Azetidine represent one of the most important four membered heterocycles used in organic synthesis and medicinal chemistry. The reactivity of azetidines is more stable than that of related aziridines. Azetidine are useful substrates in organic chemistry for the design and preparation of biologically active compounds. New series of 3 phenyl 1-(2 phenyl -H, 1-3, benzodiazole -yl) amino azetidine -2-one derivative were synthesized by the reaction of Schiff base with 2 chloro acetyl chloride. Synthesized compounds were evaluated for their physical properties including Solubility, Melting point, RF value of derivative and % yield of product. Which highlights recent improvement and the discovery of new reaction and derivative that have overcome some longstanding challenges with in this field of research.

Keywords: Alzheimer's disease; analgesic activity; anticancer activity; azaPaternò-Büchi reaction; Azetidine; dopamine receptors; fungicidal activity; pharmacological activities; recent development; ring strain

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