

عنوان مقاله:

The synthesis and characterization of novel γ -lactams through multi-components reaction between benzaldehydes, cyclohexyl isocyanide and Arginine

محل انتشار:

همایش منطقه ای شیمی (سال: 1389)

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خلاصه مقاله:

Ivar Ugi, 50 years ago, pioneered isocyanide-based multi component reactions (IMCR) for applications in combinatorial chemistry and organic chemistry (e.g. peptide synthesis), long time before the term combinatorial chemistry was even coined [1]. As an example he discovered an elegant and efficient one-pot access to the popular local anesthetic Xylocaine using his famous Ugi condensation in a three component variation, starting from formaldehyde, diethylamine and 2,5-dimethylphenylisocyanide [2]. More importantly, he immediately recognized that many variations are accessible as well by variations of the three starting materials. That time he called these derivatives collections of compounds, nowadays they are called libraries. Certainly the value of his work in the area of combinatorial chemistry can not be overestimated! In this work, the novel γ -lactam, 4a-d, were synthesized and characterized by the Ugi multi-component reactions between benzaldehydes, 1, cyclohexyl isocyanide, 2, and Arginine, 3 in methanol. Those reactions occurred at the room temperature with a quantitative yield at the one-pot .which the products were obtained without any need to purification. The results will be presented and discussed

کلمات کلیدی:

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