

عنوان مقاله:

Twin deep eutectic mixtures of gabapentin and citric acid: Controlled selective synthesis of ۱,۸-dioxo-octahydroxanthenes, ۴Hbenzo[b]pyrans

محل انتشار:

پنجمین کنگره ملی شیمی و نانوشیمی از پژوهش تا فناوری (سال: 1401)

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خلاصه مقاله:

Two deep eutectic mixtures of gabapentin and citric acid have been detected. These twin mixtures, irrespective of having different compositions, melt at close temperatures and slight differences can be noticed in their thermogravimetric and differential calorimetric curves. Yet, they impose different selective promotions on the reaction between malononitrile, arylaldehyde, and dimedone. As the reaction mixture selectively gives tetrahydrobenzo[b]pyran-۲H-ones in ۲/۱ ratio of gabapentin/citric acid eutectic melt and majorly yields ۱,۸-dioxo-octahydroxanthenes in ۱/۲ ratio of gabapentin/citric acid under similar conditions. All of the reactions were carried out without further hazardous organic solvents, and the products were simply isolated and purified, and deep eutectic solvents were easily reused.

کلمات کلیدی:

.Deep eutectic solvent, Heteroaromatic compound, Ionic liquid, Organic solvent

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