البحث الثامن (رقم 8 في قائمة البحوث المقدمه للترقيه و34 في قائمة البحوث الكلية)

Title	TFA-catalyzed Q-Tube Reactor-Assisted Strategy for the Synthesis of Pyrido[1,2-*b*][1,2,4]triazine and Pyrido[1′,2′:2,3][1,2,4]triazino[5,6-*b*]indole Derivatives استراتيجية جديده وفعاله لتحضير العديد من مشتقات بيردو[2،1-*b*] [4،2،1] تريازين و بيريدو[′1،′2:3،2]- [4،2،1] تريازينو[6،5-*b*] إندول الجديده عن طريق بروتوكول وفيه يستخدم ثلاثي فلورو حمض الخليك كعامل حفاز ومفاعل الضغط العالى (Q-Tube) كوعاء لاجراء التفاعلات.
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Abstract:

An efficient high-pressure-assisted trifluoroacetic acid-catalyzed protocol for synthesizing unreported novel pyrido[1,2-*b*][1,2,4]triazine and pyrido[1′,2′:2,3]-[1,2,4]triazino[5,6-*b*]-indole derivatives has been established. This strategy includes the condensation reactions of various 1-amino-2-imino-4-arylpyridine-3-carbonitrile derivatives with indoline-2,3-dione (isatin) derivatives and α-keto acids such as pyruvic acid and phenylglyoxylic acid. This strategy includes utilizing the Q-tube reactor as an efficient and safe tool to conduct these reactions under high pressure conditions. In addition, trifluoroacetic acid was used to induce this transformation. In this research, conducting the targeted reactions under high pressure using the Q-tube reactor was found to be superb in comparison to that under the traditional refluxing conditions. X-ray single-crystal analysis was utilized in this study to authenticate the structure of the synthesized products.