

Design and synthesis of new 2*H*-naphtho[1,2-*b*][1,4]oxazin-2-one derivatives

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ABSTRACT Some new 2*H*-naphtho[1,2-*b*][1,4]oxazin-2-one derivatives **11a-d** were synthesized through a multi-step process beginning with the esterification of readily available hydroxy compounds **1a-d**. The esters **3a-d**, on reaction with hydrazine hydrate, produced hydrazides **4a-d**. A cyclization reaction between 2-nitrosonephthalen-1-ol **5** and ethyl acetoacetate **6** formed a substituted oxazin-2-one derivative **7**. The next step was the formation of chalcone **9** through the reaction of oxazin-2-one **7** with terephthalaldehyde **8**, followed by the reaction of chalcone **9** with hydrazide **4a-d**, which delivered the final 2*H*-naphtho[1,2-*b*][1,4]oxazin-2-one derivatives **11a-d**.

KEY WORDS Oxazin-2-one, Pyrazole, Ultrasonic irradiation, Heterocyclic hybrids.

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