

ULTRASOUND ASSISTED SYNTHESIS OF ARYL AMINO LINKED OXADIAZOLES AS POTENT FREE RADICAL SCAVENGING ACTIVITY

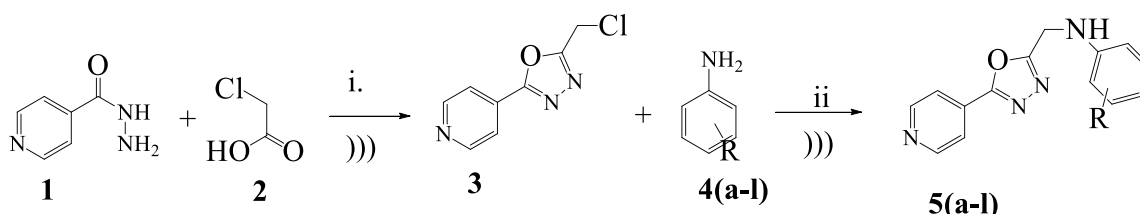
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Scheme 1. Synthesis of 2,5-di substituted 1,3,4-oxadiazoles and their derivatives

Organic compounds environmental favor synthetic approaches always a fresh tool in the synthetic research [1,2]. If those compounds have therapeutically potential, then it called advanced research [3,4. Herein, we report the ultrasound assisted synthesis of oxadiazoles linked with aryl amines and screened for their free radical scavenging activity by using three methods. All the compounds displayed reliable biological properties. In all active compounds, para-methoxy substituted compound hold high free radical scavenging property. From the synthetic point of view this is the novel environment favor method for the synthesis of aryl amine linked oxadiazoles and the biological results of these compounds may stand as a referee for further development of biologically active aryl amine linked oxadiazoles.

References

- [1] A.K. Kumari, V.H. Reddy, G.M. Reddy, Y.V.R. Reddy, S. Leelavathi, J. Heterocyclic. Chem. **2019**, 56, 1661
- [2] V.H. Reddy, A.K. Kumari, G.M. Reddy, Y.V.R. Reddy, J.R. Garcia, G.V. Zyryanov, N.B. Reddy, A. Rammohan, Chemistry of Heterocyclic Compounds, **2019**, 55, 60
- [3] Reddy, G.M.; Garcia, J.R.; Reddy, V.H.; Kumari, A.K.; Zyryanov, G.V.; Yuvaraja, G. J. Saudi. Chem. Soc. **2018**, 23, 263
- [4] A. Rammohan, G.M. Reddy, J.R. Garcia, G.V. Zyryanov, G. Sravya, N.B. Reddy, G. Yuvaraja J. Heterocyclic. Chem. **2019**, 56, 470.