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# Book of Abstracts

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# Synthesis of N-allyl-2-thiohydantoins from natural and unnatural amino acids as prospective ligands for coordination with various biologically relevant metals.

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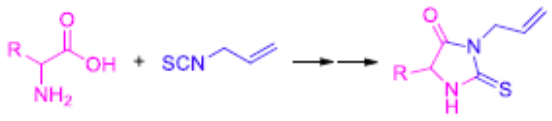
The thiohydantoin ring system has attracted considerable attention, both with regards to heterocyclic chemistry and the pharmacological activities of its derivatives.[1] Thiohydantoin derivatives have been found to possess potential biological and medicinal activities, such as antiviral, antifungal and anticonvulsant.

2-Thiohydantoins have considerable coordination potential and their metal complexes are biologically active molecules.[2] It is known that coordination of these compounds with transition metal ions sometimes enhances their antiviral and antitumor activity.

Based on the above observations, it was decided to synthesize a series of N-allyl-2-thiohydantoin derivatives from natural and unnatural amino acids. These molecules have several nucleophilic groups and could act as effective polydentate ligands towards metal ions. Furthermore, they could be used as suitable substrates for further chemical transformations leading to more constrained and complex molecules which could also have biological activities and coordination abilities.




Bibliographic references:

[1] C. A. Lopez, G. G. Trigo, *Adv. Heterocycl. Chem.*, 1985, **38**, 177.
[2] B. Šmit, R. Z. Pavlović, A. Radosavljević-Mihajlović, A. Došen, M. G. Ćurčić, D. S. Šeklić, M. N. Živanović, *J. Serb. Chem. Soc.*, 2013, **78**, 217.

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