

POSTER PRESENTATIONS

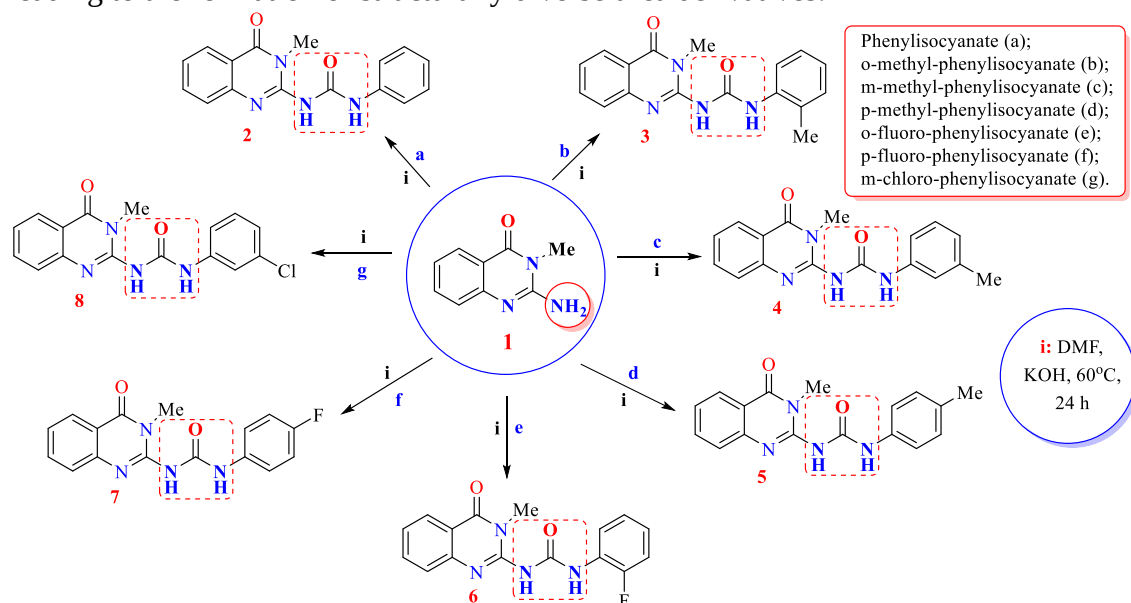
SYNTHESIS OF UREA-BRIDGED ARYL-HETERYL HYBRID MOLECULES

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Quinazolin-4(3H)-one derivatives are an important class of nitrogen-containing heterocyclic compounds with diverse biological activities, including anticancer, antimicrobial, anti-inflammatory and antiviral properties. In addition, the **urea** pharmacophore is present in several clinically approved anticancer drugs, such as Sorafenib and Lenvatinib. Therefore, the combination of quinazolinone and urea fragments into a single molecular framework represents a promising molecular hybridization strategy for the development of novel biologically active compounds [1,2].

Based on this concept, the present study was aimed at the synthesis of a series of urea-bridged aryl-heteryl hybrid molecules using 2-amino-3-methylquinazolin-4(3H)-one as the key intermediate. The strategy involved the functionalization of 2-amino-3-methylquinazolin-4(3H)-one through reactions with substituted phenyl isocyanates, leading to the formation of structurally diverse urea derivatives:



The proposed methodology afforded the target compounds in satisfactory yields and may provide a useful platform for the development of biologically active quinazolinone derivatives.

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References:

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2. Sara P. S. P. Moura, Silvia Marín, Ismael Rufino, Rita C. Guedes, Marta Cascante, and Jorge A. R. Salvador, *Int. J. Mol. Sci.*, 2024, 25, 13332-13361.