

## CuAAC reaction promoted the synthesis of promising selenyl-dihydropyrimidinones (DHPMs)

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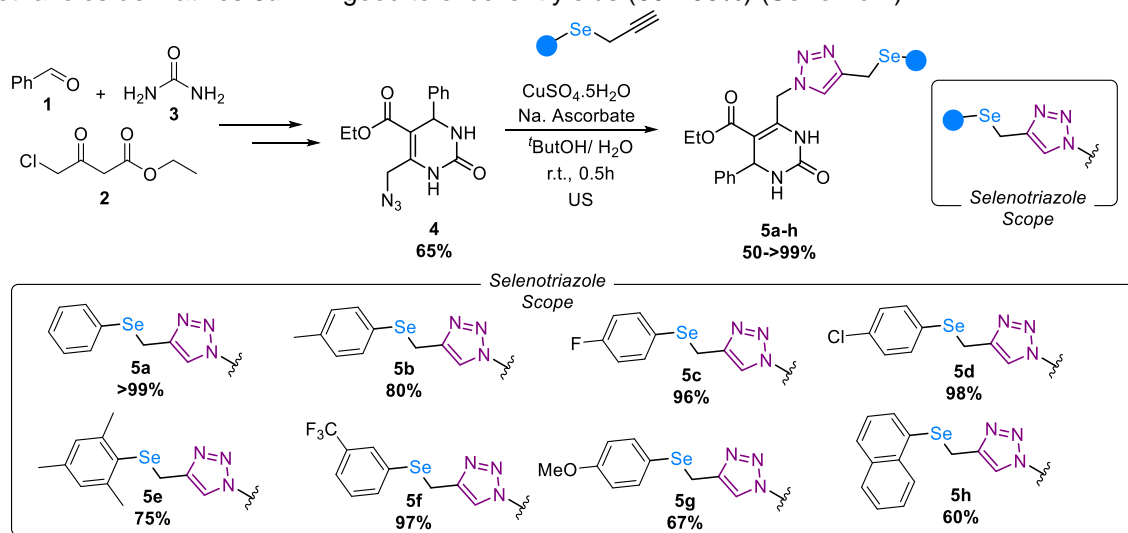
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### ABSTRACT

Recent research has focused on molecular hybridization as a tool in the rational design of innovative drug candidate prototypes.<sup>1,2</sup> In particular, CuAAC reaction has been employed as one of the key strategies for this approach.<sup>3,4</sup> Within this scope, the combination of organochalcogens, 1,2,3-triazole and the dihydropyrimidinone (DHPM) nuclei is particularly promising.<sup>5-8</sup> In this context, we report the results of the design, synthesis of the molecular hybrids, uniting these three interesting synthetic frameworks in the same molecule, using CuAAC reaction as a synthetic approach. As a starting point, we used DHPM-azide **4**, previously synthesized *via* Biginelli reaction, and the selenoalkyne as model compounds. The optimized methodology was 0.2 mmol alkyne, 0.4 mmol azide and 10 mol% CuSO<sub>4</sub>·5H<sub>2</sub>O under ultrasound irradiation. The scope of the reaction was explored with additional selenoalkynes, obtaining a series of 8 novel DHPM's-selenotriazoles derivatives (**5a-h**) in good to excellent yields (60->99%) (**Scheme 1**).



Scheme 1.

### ACKNOWLEDGEMENTS

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