

## **Click chemistry with mesoionics : new tools for heterocyclic chemistry and chemical biology**

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The development of bio-orthogonal reactions that can be performed in living systems has long held unique fascination in the field of chemical biology. On the other hand, the discovery of chemical reactions fulfilling the criteria of the click chemistry concept continue to have a huge impact in many research fields including heterocyclic chemistry. Quintessential example is the copper-catalyzed azide-alkyne cycloadditions (CuAAC). Our laboratory is involved in the discovery and use of such reactions with a focus on mesoionic compounds which can act as new interesting dipoles. These reactions were used both for biological and synthetic applications.