

Trigger on-demand in photochromic systems - Towards energy storage

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Organic photochromic compounds are known for more than a century for their ability to shuttle between two forms, usually isomers, upon light excitation. In addition to their color change, exploited in lenses, the possibility to modify reversibly a large number of chemical and physical properties, using a “sustainable” source, have attracted much interest. Recently, they are envisaged for molecular solar thermal (MOST) energy storage.

The presentation will focus on photochromic species presenting unconventional phenomena, such as cascade reactions triggered by redox or acid-base reaction. Among them, acid-catalyzed reactions are of particular interest, both for fundamental mechanistic aspects and application-oriented perspectives such as MOST.