

New Insights into Trihaloisocyanuric Acids Chemistry

Marcio C. S. de Mattos

Departamento de Química Orgânica, Instituto de Química, Universidade Federal do Rio de Janeiro

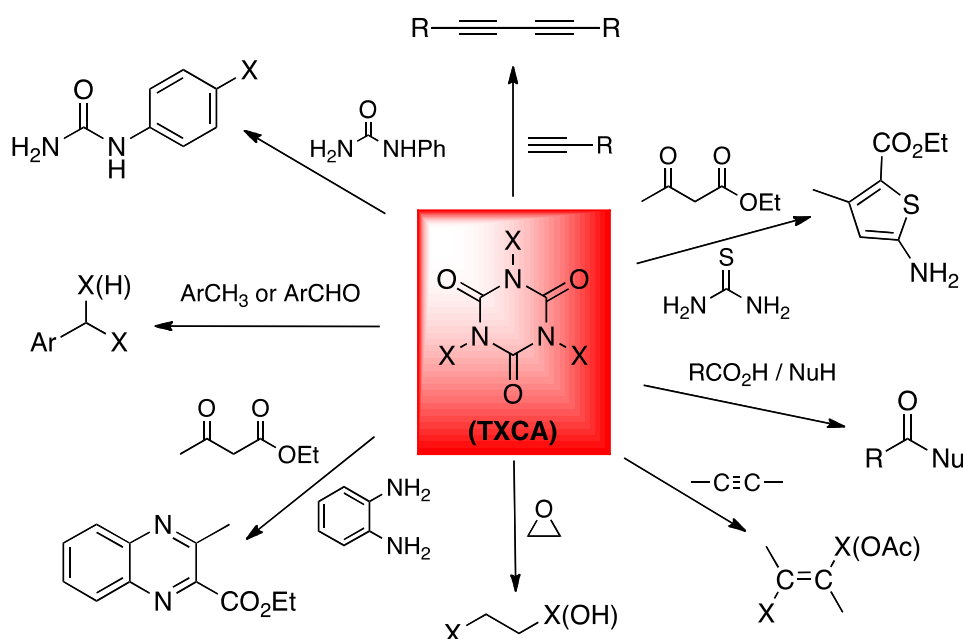
*e-mail: mmattos@iq.ufrj.br

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ABSTRACT

Trihaloisocyanuric acids (TXCA) are versatile *N*-halo compound used efficiently in diverse transformations.¹ Among the haloisocyanuric acids, the most employed is the trichloroisocyanuric (TCCA), a stable solid used for swimming pool disinfection, sold in supermarkets or specialized stores on multigram/kilogram scale.² Tribromoisocyanuric acid (TBCA), can be easily obtained from cyanuric acid, KBr and oxoneTM in a safe procedure.³ Triiodoisocyanuric acid (TICA) can be obtained from TCCA and I₂, heated in a sealed tube at high temperatures.⁴ The trihaloisocyanuric acids are also very interesting reagents from the Green Chemistry point of view, since they present good atom economy and are safe to be handled. Besides, after the reaction is completed, its by-product isocyanuric acid can be easily separated from the reaction media by simple filtration and can be reused for the synthesis of new TXCA batches.⁵ We present here new reactions involving TXCA developed in our laboratory.⁶

GRAPHICAL ABSTRACT



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