

Synthesis and Bioactivities of Small Butenolides

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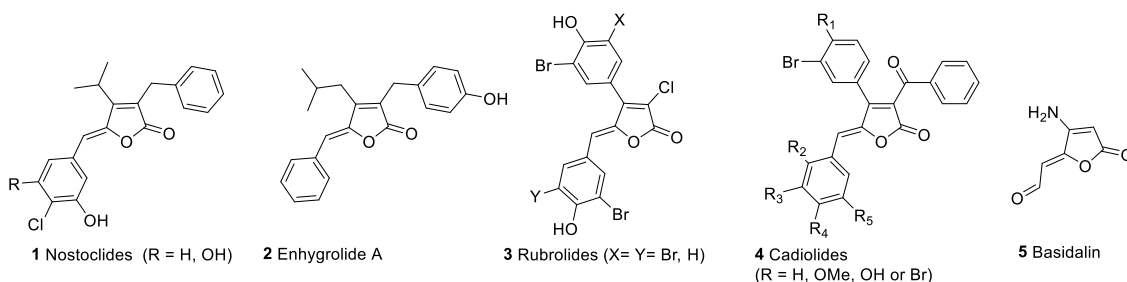
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ABSTRACT

Butenolides, or α,β -unsaturated- γ -butyrolactones, are ubiquitous moieties present in the structures of many natural products and synthetic compounds endowed with a large array of biological activities. Among some bioactive natural butenolides are the nostocliques (**1**), enhyngrolides (**2**), rubrolides (**3**) and cadiolides (**4**). Tetronamides are another important class of β -heterosubstituted butenolides that have attracted growing attention from synthetic and medicinal chemists alike. Some tetronamides display significant biological activities as the newly marketed systemic insecticide flupyradifurone and the fungal antitumor antibiotic basidalin (**5**). In this presentation, it will be discussed some of the methods for the preparation of natural and non-natural butenolides¹. It will also be discussed the results of our efforts towards the discovery of new synthetic butenolides with agrochemicals², antimicrobials³ and cytotoxic properties⁴.

GRAPHICAL ABSTRACT



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