



## Synthesis and Bioactivity of Coumarin and Coumarin Derivatives

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### Message from the Guest Editor

Dear Colleagues,

Coumarin (2H-1-benzopyran-2-one) is wide spread as an essential core moiety in a variety of natural products occurring in plants, bacteria, and fungi. Coumarins present interesting biological properties, such as anticoagulant, antibiotic, anti-inflammatory, antioxidant, anti-HIV, anticancer, thermal photosensitizing, vasodilator, and estrogenic activity.

Especially, hydroxycoumarin derivatives are used as anticoagulant, antibiotic, or choleric drugs. 7-Aminocoumarins are useful as biological sensors showing fluorescence activity. Fused furanocoumarin derivatives are used for treating psoriasis, and they also exhibit anti-inflammatory, antibacterial, antifungal, and cytochrome P-450 inhibitor properties. Fused pyranocoumarins present anti-HIV, anticancer, anti-inflammatory, antifungal activities, and they play an important role in the regulation of root growth in different plants. Fused pyrrolocoumarins possess cytotoxic, anti-HIV, anti-inflammatory, photobiological, and antiproliferative properties. Fused pyridocoumarins present anticholinergic, antidiabetic, antiallergic, antipsychotic, and antimicrobial activities.

Prof. Dr. Konstantinos E. Litinas  
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