

## SYNTHESIS OF ANTHRAQUINONES AS HUMAN PROTEIN KINASE CK2 INHIBITORS

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Anthraquinones are considered privileged structures in medicinal chemistry since they interact with multiple biological receptors and present a wide range of biological activities. Thus there are examples of anthraquinones with antitumor, anticancer activity, antibacterial, antitripanosomal, antineoplastic and anti-HIV. The antitumor activity of some anthraquinones such as quinalizarin and emodin is due to its role as inhibitors of the protein kinase CK2. The overexpression and hyperactivation of this enzyme has been related with a wide variety of human diseases as: inflammatory processes, infection and cancer including breast, lung, pancreas, prostate cancers and leukemia. In this communication we report the organocatalyzed synthesis of a set of anthraquinones, its biological evaluation as CK2 inhibitors. Molecular docking studies will be also included

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