

# Design, Synthesis and Characterization of Some Novel 3-Coumarinyl-5-arylidene-1,3-thiazolidine-2,4-diones and Their Antioxidant Activity

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In our effort to obtain biologically active compounds, new 3,5-disubstituted 1,3-thiazolidine-2,4-diones (**5a – r**) were synthesized. A series of 5-arylmethylidene-1,3-thiazolidine-2,4-diones (**3a – r**) were prepared by Knoevenagel reaction from 1,3-thiazolidine-2,4-dione (**2**) and appropriate aromatic aldehydes. Condensation of **3a – r** with 7-hydroxy-4-bromomethyl-2-oxo-2*H*-chromene (**1**) afforded novel 3-(7-hydroxy-2-oxo-2*H*-chromen-4-ylmethyl)-5-arylidene-1,3-thiazolidine-2,4-diones **5a – r**. Compounds **3a – r** and **5a – r** were evaluated for their antioxidant activity (DPPH free radical scavenging activity).

*Key words:* 1,3-Thiazolidine-2,4-diones, 7-Hydroxy-4-bromomethyl-2-oxo-2*H*-chromene, Knoevenagel Reaction, N-Substitution, Antioxidant Activity