

ABSTRACT FOR POSTER PRESENTATION
(CHEMICAL SCIENCES)
SYNTHESIS OF NOVEL FLAVONOID DERIVATIVES,
EVALUATION OF THEIR ANTICANCER ACTIVITY
AND FLUORESCENCE STUDIES

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Abstract

Flavonoid nucleus is medicinally important bioactive scaffold present in many natural and synthetic drug candidates. A novel series of Benzofuran, Coumarin based flavonoid derivatives containing 1,2,3 triazole moiety were synthesized under conventional and microwave irradiation conditions via Click reaction of various arylazides with terminal acetylene. The synthetic protocol used for achieving title compounds is simple, eco-friendly and cost effective with high yields. All the synthesized analogues were characterized by IR, ^1H NMR, ^{13}C NMR and Mass spectral analysis. All the products were screened for anticancer activity on MCF-7 cell line and showed promising activity. Molecular Docking, UV-VIS absorption, fluorescence studies of the synthesized analogues have been carried out.

Key words: Flavonoid, Click reaction, Microwave, Anticancer activity, Molecular Docking, UV-VIS, Fluorescence,