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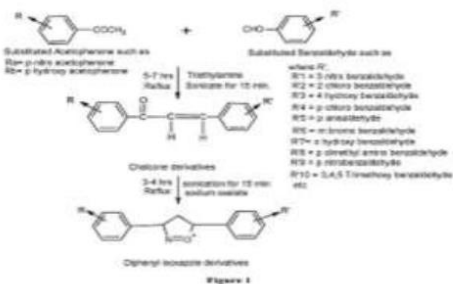
(54) Title of the invention : ANTI-CANCER ACTIVITY OF SUBSTITUTED ISOXAZOLE DERIVATIVES

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(57) Abstract :

The present invention relates to the design and synthesis of substituted isoxazole derivatives and screening of compounds for anti-cancer and anti-inflammatory activity. In this present study various substituted isoxazole derivatives were synthesized by conventional and microwave assisted method. Wherein the compounds synthesized by the Microwave method results in higher yields. Sharp melting points and Rf values were used to determine the purity and homogeneity of produced chemicals. IR, 1H NMR, and MASS spectra were used to characterize the structural properties of the produced compounds. The synthesized compounds were docked with receptors of lipoxygenase-3 soybean complex for anti-inflammatory activity (PDB Code- 6zho), potent inhibitors of NUDT1's silence hormone signaling in Breast cancer (PDB Code-3vhk) for anti-cancer activity. The Results showed that the compound 2s is having 76.66 % of inhibition and showed the significant anti-cancer activity when compared with the standard drug of 5- Fluorouracil.



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