

The synthesis and assessment of the anti-cancerous effects of some new derivatives of quinazoline

E. Alipour^{1*}, R. Najafi¹, Z. Safaei², M. Mahdavi³, A. Foromadi³

¹Department of chemistry, Tehran North Branch, Islamic Azad University, Tehran, Iran ²Young Researchers Club, Tehran North Branch, Islamic Azad University, Tehran, Iran ³Pharmaceutical Sciences Research Center, Tehran, Iran

Chemotherapeutic drugs, in combination with other treatments, are used for the management of cancer, a lethal human disease. Most of these drugs have a lot of adverse effects such as hair loss and gastrointestinal upset on patients. Researchers are constantly trying to synthesize new chemotherapy drugs, more effective and with less adverse effects than available drugs. In this study we designed and synthesized derivatives of quinazoline with anti-cancerous effects by the use of new molecular modeling techniques. Two of the drugs are

We used two methods for the synthesis. The first method is composed of two stages; the initial stage is multi component and has been done in the smallest amount of solvent. The other is the usual two-component method which has been done in several stages. The structure of the intermediate and terminal products has been recognized with H-NMR, C-NMR and MS methods. The melting point and RF of each has been determined. The therapeutic effects are under investigation.

Keywords: Synthesis; Quinazoline; Anti-cancer; H-NMR