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Preparation and characterization of some heterocyclic compounds derivatives as active hypoglycemic from Chalcones

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Abstract

This study aimed to synthesis and characterize heterocyclic compounds Pyrazolines and pyrimidine as hypoglycemic drugs. These compounds prepared by reacting hydrazine, urea, and thiourea with the appropriate Chalcones 2(a-f), using ethanol solvent and heated at temperature (78-80^{0}C) in moderate yields (58-86) %. The newly synthesized pyrazolines and pyrimidine have been characterized by element C.H.N analyzer, IR (Infrared Radiation) spectra and UV (Ultraviolet and Visible) spectra and ^{13}C-NMR (Carbon-13 Nuclear Magnetic Resonance) spectra. The activity of synthesized compounds (2c and 2f) hypoglycemic was tested in vivo. The results of this study approved the ability of these compounds to act significantly as hypoglycemic drugs and reduced the blood glucose level in hyperglycemic experimental animals. The author recommends to do another studies to investigate the antibacterial, antifungal and antioxidant activities of these compounds.

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