

## عنوان مقاله:

Synthesis of Pectin Graft Drug to Treatment the Wounds and Inflammations

## محل انتشار:

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## نویسندگان:

Firyal Mohammed Ali - *Al-Mustansiriyah University, College of Science, Department of Chemistry, Baghdad, Iraq*

Hameed Muthanna Ahmed - *Al-Mustansiriyah University, College of Science, Department of Chemistry, Baghdad, Iraq*

## خلاصه مقاله:

This idea of this work included preparation new adhesive drug polymers to treatment the wounds and inflammations, new drug polymers were prepared as bio adhesive, which have high viscosity and treatment the wounds by the adhesion of both ends of the wound when it put as well as the speed of the treatment of external inflammation, because it remains inherent to the position of injury fast time, because of the property for it viscosity. A new bio adhesive polymer was prepared by modification of Pectin structure with acrylic acid (P1) as a spacer by using ceric ammonium nitrate (CAN) as an initiator, and new graft copolymer was substituted with amino drugs such as amoxicilli produced amide polymer. This design carries controlled delivery of therapeutic agents which could release the entrapped drug over an extended period of time due to its biodegradable, nontoxic and slow digesting nature. All prepared adhesive drug polymers were characterized by FTIR, <sup>1</sup>H-NMR spectroscopes, thermo gravimetric analysis TGA and DSC were studied. intrinsic viscosities and physical properties of all prepared polymers were measured, biological activity was studied for all adhesive drug polymers this new adhesive drug biological polymers were applied on different infected mice and wounds, It gave outstanding results and compliance mice infected with a full recovery by a short period of time. The prepared drug copolymer was analyzed in different pH values at 37 °C in vitro study and controlled drug release was compared at zero time and after three days. The rate of hydrolysis in basic medium was found higher than acidic medium. It was concluded that modified drug release with extended drug action via slow .release and in vivo performance was noted to be promising

## کلمات کلیدی:

Pectin, Controlled delivery, Adhesive drug polymers, Graft copolymer

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