

Prparation of Tannin Based Hydrogel for Biological Application

Abstract:

Polymeric blends as potential wound dressing were prepared. Natural polymer(Tannin) and synthetic polymers (PVA and PEG) used to prepared heterogeneous blends. The product was identified by spectrophotometry. A diaphragm cell was used to measure the diffusion coefficient (D). The result showed that the PEG-PVA disk was faster in permeability for all solution. The D of PVA/ PEG Tannin blend was $0.184 \times 10^{-3} \text{ cm}^2/\text{s}$ higher than Tannin-PEG blend was $0.038 \times 10^{-3} \text{ cm}^2/\text{s}$. The natural phenolic compounds can be used as artificial membrane to inhibit growth or kill microor ganism such as bacteria or fungi