

## Cellulose Acetate Microwell Plates for High-Throughput Colorimetric Assays

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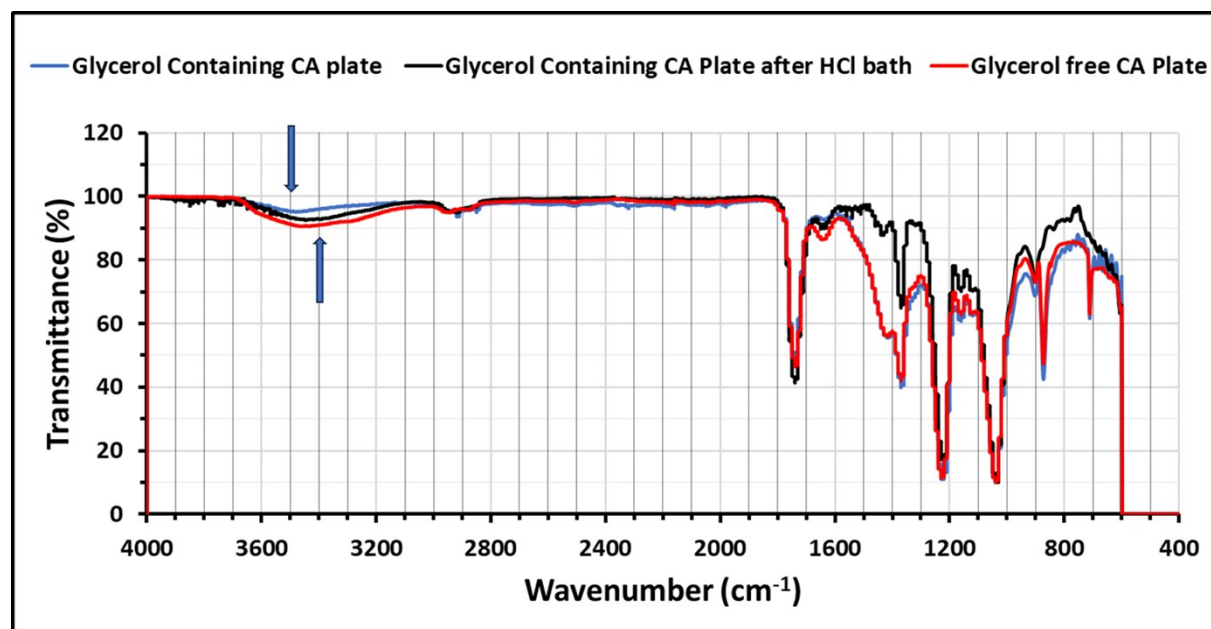
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**Electronic Supplementary Information 1:** FTIR Spectra of CA membrane at different stages of fabrication process.



In the presence of glycerol, the hydrogen bonding pattern changes in the plate, as additional hydrogen bonds are formed between CA and glycerol besides those between different molecules of glycerol and between different molecules of CA (Haq et al. 2014). This can be verified from the FTIR spectra shown above. The absorption region at 3500 cm<sup>-1</sup> of -OH stretching seen in FTIR spectra of the CA plate containing glycerol, was displaced to 3400 cm<sup>-1</sup> after the plate was treated with HCl bath because HCl removes glycerol from the plate (Mohammed Redha et al. 2021). The

absorption region of -OH stretching in FTIR spectra of CA plate fabricated without glycerol was identical to that of the HCl bath treated CA plate.

## **References**

Haq MA, Hasnain A, Azam M (2014) Characterization of edible gum cordia film: Effects of plasticizers. *LWT - Food Science and Technology* 55:163–169. <https://doi.org/10.1016/j.lwt.2013.09.027>

Mohammed Redha Z, Bu-Ali Q, Saeed YA, Ali AM (2021) Optimization of the Asymmetric Cellulose Acetate Membrane Synthesis Variables for Porosity and Pure Water Permeation Flux Using Response Surface Methodology: Microfiltration Application. *Arab J Sci Eng* 46:6593–6607. <https://doi.org/10.1007/s13369-020-05298-5>