

## Effect of electric fields for reducing membrane fouling in dead-end filtration

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### ABSTRACT

The purification of cell suspension in this presented work is to investigate in the membrane process under the influence of an electric field. This paper presents with example from membrane process showing how the filtration time is reduced by the use of an electric field. The transmembrane pressure (TMP) was reduced by 20% as the electric field increased. The concentration of biopolymers of cell suspension in the presence of an electric field was reduced by over 300% in comparison with the membrane process without an electric field. The hydraulic electrofiltration provides another substitute to the crossflow filtration in the purification of cell suspension.

*Keywords:* Protein; Electric field; Microfiltration

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