



Ion-exchange membrane reinforcing

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ABSTRACT

Sufficient mechanical property of ion-exchange membrane is a key factor for its successful implementation to electro dialysis (ED) stack. Although the ED is not a pressure driven process, the membrane need to withstand some small overpressure and also manipulation during stack assembling. In this work, the use of short polypropylene and glass fibers as low cost alternative to common woven or nonwoven fabric was studied. We confirmed that short polypropylene fibers rapidly increase the mechanical strength in machine direction (MD) even at very low concentration.

Keywords: Ion-exchange membrane reinforcing; Fabric; Short fiber

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