

ELECTRODEIONIZATION USING MAGNETIC ION EXCHANGE RESINS

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ABSTRACT

Magnetic micro ion exchangers are used in an electrodeionization cell within a magnetic field to prevent demixing of the ion exchange filling in the diluate chamber. New test methods were applied to describe the demixing behavior of the ion exchange bed. Typical parameters for ion exchange membranes like permselectivity or the electrical resistance have been determined for single membranes and an electrodeionization cell. A method was found to observe the homogeneity of the ion exchange bed in an electrodeionization cell during use.