

## Recovery and concentration of basic amino acids by electrodialysis with bipolar membranes

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### ABSTRACT

Recovery and concentration of basic amino acids by electrodialysis with bipolar membranes are studied. The utilization of bipolar membranes leads to an increase of amino acids fluxes through monopolar membranes. No-flow concentration compartments give the possibility to concentrate amino acid solutions. Concentration factors have been obtained in a wide range of current density for basic amino acids with various side chains (lysine, arginine, histidine). The feed solution concentration influence on concentration factor is discussed. The correlation between the hydration of monopolar membranes in amino acids forms and concentration efficiency during the electrodialysis with bipolar membranes is found.

*Keywords:* Electrodialysis with bipolar membranes; Basic amino acids; Recovery and concentration

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