

ABSTRACT

ELECTROCHEMICAL SEPARATION SYSTEMS AND METHODS

Systems and methods for treating water may involve a first electrochemical separation module that includes at least one ion exchange membrane having a first set of performance characteristics, and a second electrochemical separation module that includes at least one ion exchange membrane having a second set of performance characteristics that is different than the first set of performance characteristics. Performance characteristics may relate to at least one of water loss, electrical resistance, and permselectivity. Staged treatment systems and methods may provide improved efficiency.

[Figure 1]