



TANDEM ELECTRODIALYSIS CELL SYSTEMS BASED ON THE USE OF REDOX COUPLES

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The Invention

UW researchers have developed a new type of tandem electrodialysis (ED) cell where salination is performed in one cell and desalination in the other with circulation of the anolyte and catholyte to avoid concentration changes in the redox mediators. In this new method, different redox couples are used in the anolyte and catholyte so that the charges of the redox couples used can be individually optimized to minimize the leakage of the redox couples through the CEM (cation exchange membrane) and AEM (anion exchange membrane). This method can be performed using operating voltages that are lower than in traditional ED cells and the voltages can be minimized by choice of mediators.

Additional Information

For More Information About the Inventors

- [Kyoung-Shin Choi](#)

Tech Fields

- [Clean Technology](#): Solar, wind & water technologies

For current licensing status, please contact Jennifer Gottwald at jennifer@warf.org or 608-960-9854