國立中央大學 National Central University

環境工程研究所

Graduate Institute of Environmental Engineering

Colloid and Interface Science Laboratory

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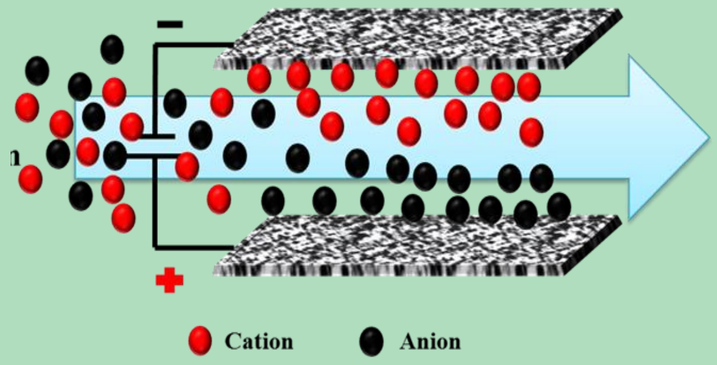
CAPACITIVE DEIONIZATION (CDI)

CDI deionizes water by applying an electrical potential over two electrodes. It has become an emerging and promising technology for desalination and wastewater reclamation due to its low energy cost and regeneration of electrodes.

The development of novel electrode materials, transport of pollutants, and reaction kinetics are of interests.



Researches in *Colloid and Interface Science Laboratory* are focused on the interactions between pollutants and particles. Research interests include development of novel treatment processes for water reclamation, development of water quality monitoring techniques, and applications of nanotechnology in environmental engineering.

FATE AND TRANSPORT OF NANO-PARTICLES

There are more and more applications of nanoparticles and discoveries of nano-waste. Their influences to the environment and human need to be assessed in order to characterize their risks and to have proper management strategy.

SENSOR

For the treatment of wastewater with varying quality and the need for environmental protection, in-situ analysis of water quality has become more and more important. The goal is to develop sensors with easy operation, good selectivity, and low cost.