



Distil™

for Product Concentration and Resource Recovery

Industrial wastewater contains many precious and useful compounds that are not harvested. Technologies to recover these compounds offer significant opportunities for sustainable business operations.

Inspired by *Distil™ for Desalination*, EWTCOI researchers explored the use of the technology. Working with an electroplating company, our researchers demonstrated the use of **Distil™** to concentrate nickel containing wastewater to the point that nickel crystals could be recovered. Working with another company in the agriculture industry, EWTCOI researchers successfully used **Distil™** to convert wastewater with dilute nutrients such as nitrates, nitrites and phosphorous into a highly concentrated nutrient stream that can potentially be used as fertilisers. In addition, a high quality pure water by-product was generated.

Distil™ opens up many possibilities for use in various industries such as chemical, pharmaceutical, food and beverage.

EWTCOI leverages existing and new technologies to solve industry woes.

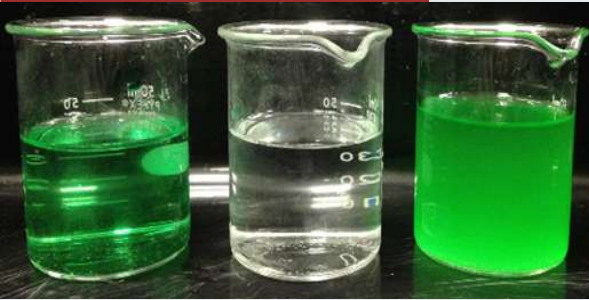
Key Features & Benefits

- Independent of salt concentration in the feed source
- No chemical pre-treatment required
- Adaptable to utilise either solar heat or waste heat from industrial processes
- Low-energy consuming process (<1.5kWh/m³)
- Potential energy savings of up to 40% when compared to conventional concentration systems
- Recovery of resources leading to lower operating costs
- High quality pure water as a by-product

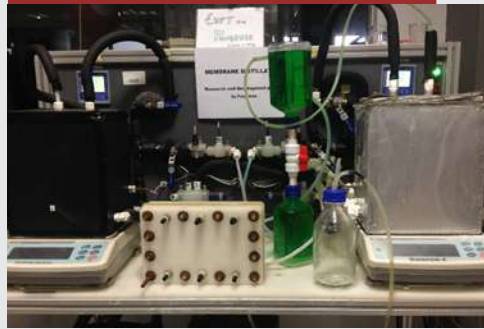
Applications

- Product concentration for various industries
- As a concentration process in zero liquid discharge (ZLD) applications
- Degassing and stripping of volatile and semi-volatile compounds from liquid streams

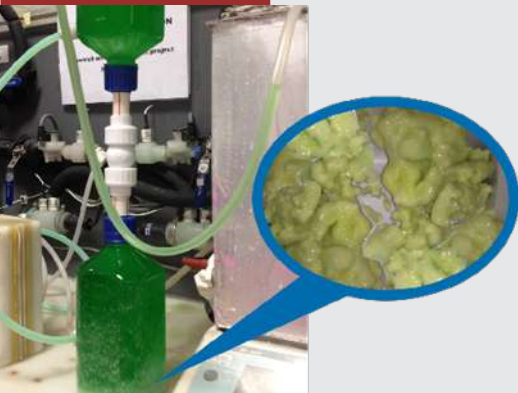
Feed, permeate and concentrate
(from left to right)



New ZLD system based on Distil™



Recovery of product
as salt crystals



Distil™ modules

