



PHOSPHATES and SULPHATE *Removal*

Water pollution by industry poses a challenge for the water treatment sector to find cost effective and environmentally sustainable water treatment technologies. EcoSat is an emerging electrochemical core technology for the purification and treatment of water and effluent. The technology combines established science and processes in a unique mechanism to optimally recover re-saleable metals.



Operational description

Dissolving metal electrode cartridges, in the effluent yields a variety of highly active ionic species which precipitates, immobilises, complexes and / or physically changes pollutants for easy separation. The system provides seamless integration and mobility for fast effluent emergency treatment.

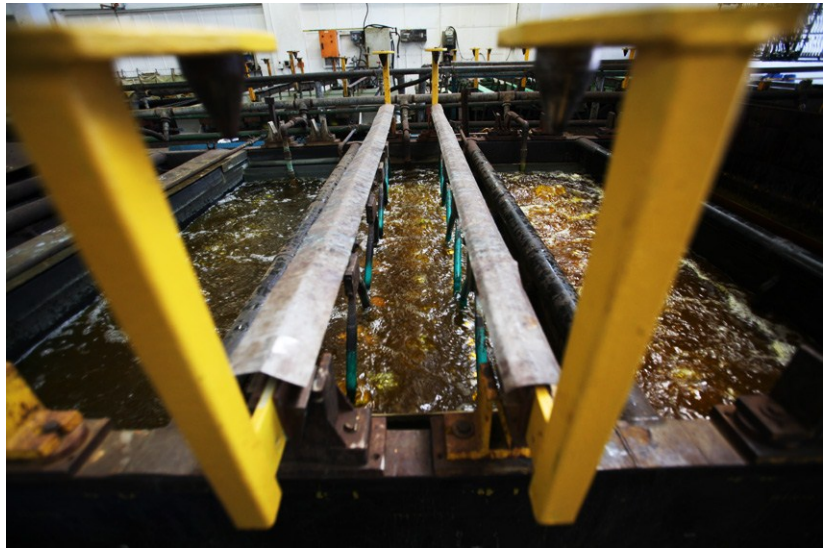




EcoSat

Scientific description

The reactor is a metal ion-generator. Powered by solar, wind, fuel sources or normal grid. Automated process control and data capture, ensures reliable operation.



EcoSat capabilities

Provides immediate and versatile results on treated effluent by:

- Increasing pH of acidic effluents;
- Dissolves flocculation cat-ions (ions⁺) without inhibiting (an- ions⁻);
- Extracts and precipitates phosphates and metals associated with acid mine drainage
- Reduces organic carbon and COD/BOD to less toxic, less complex units

Potential applications

Reduces hazardous chemicals like radio nuclides and cyanide

Complements existing pre-treatment for



Benefits

- No dosing chemicals, no mixing, no transport and no secondary pollution from added chemicals
- Compact and easily transportable
- Easy-to-automate process control
- Solid state reactor reduces costs associated with water treatment

EcoSat Carbon Energy and Water

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