

COMPETITIVE ADVANTAGES

- A **reversible process**;
- **Selectivity**, even for 2 divalent cations;
- An **impermeable wall** in case of electrical field absence (no diffusion);
- **Possible use of non aqueous electrolytes** and of different electrolytes in the two separate tubs;
- **100% cations transferred**.

APPLICATIONS/MARKETS

- Treatment of liquid industrial wastes containing metallic cations such as Co, Ni, Cu, Cd, Zn, and Mn;
- For example, leachates of used batteries to valorize the contained metallic elements.

INTELLECTUAL PROPERTY

- Patent delivered: FR 291807;
- Extensions for Europe, Canada, USA, Chine and Japan.

LABORATORY

- Institut Jean Lamour (IJL)

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PRESENTATION

The device and associated process are both built around an electrochemical transfer junction (ETJ) made of Chevrel phases. It enables **selective transfer between 2 electrolytes from different cations** (Co, Ni, Cd, Zn, Mn, Cu). The material used for the ETJ allows a **controlled and reversible transfer**.

