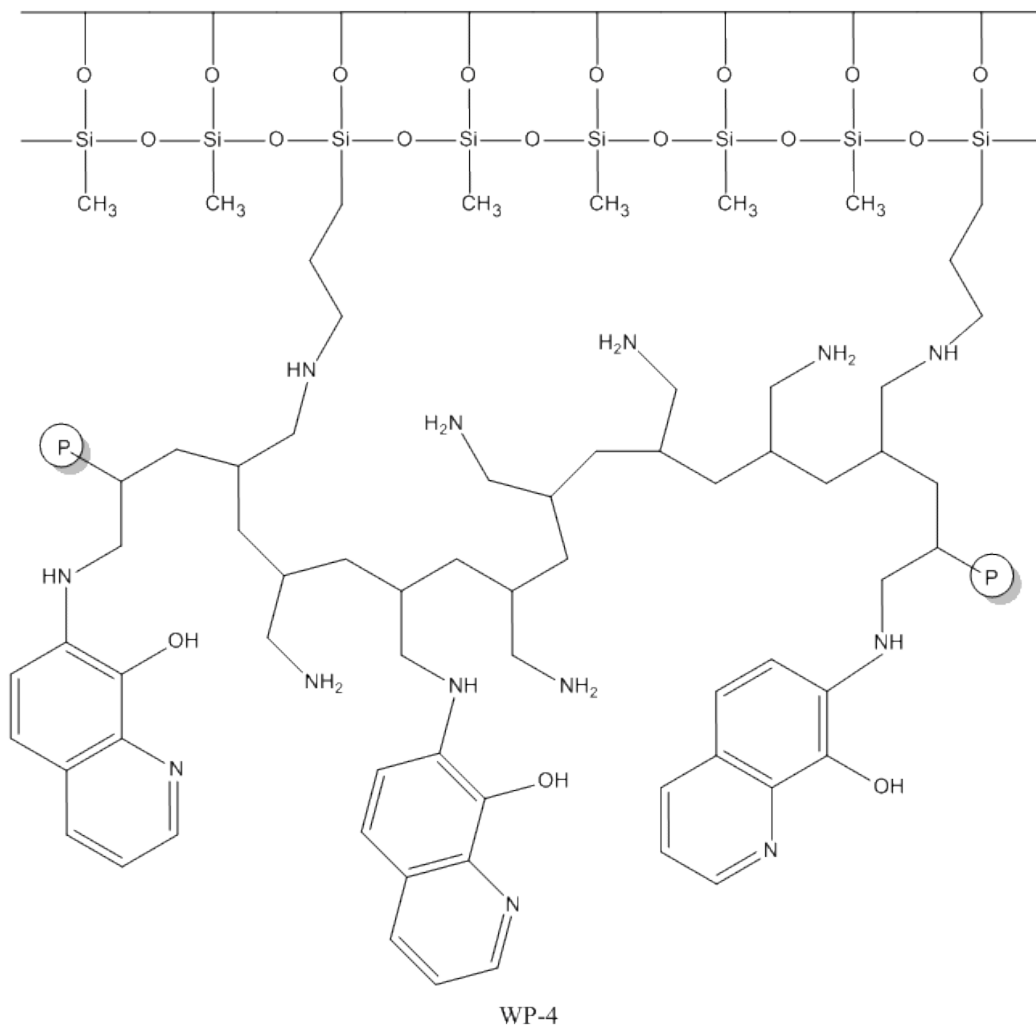

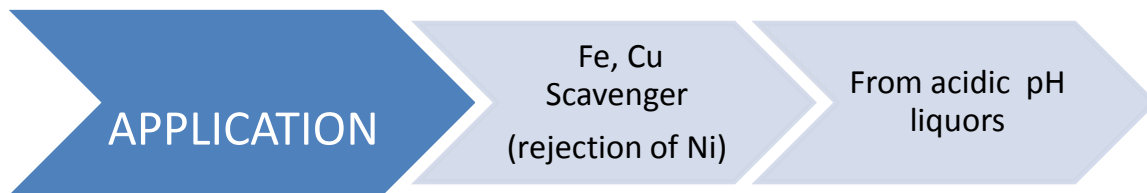


Purity Systems Inc. WP-4[®] Non-Styrene Ion Exchange Resin

WP-4[®]



 = polymer



At acidic pH's WP-4[®] will load ferric iron and copper whilst rejecting nickel making this resin suitable for ion exchange elution product purification or ferric iron removal from both primary and bleed streams.

Case Study:

Value metal (nickel and copper) primary recovery by styrene ion exchange resins to produce a impure concentrate stream containing:

Ni	Cu	Fe	Co	Zn	Mg	Al
4.5	9.0	1.2	0.2	1.2	19	5.0

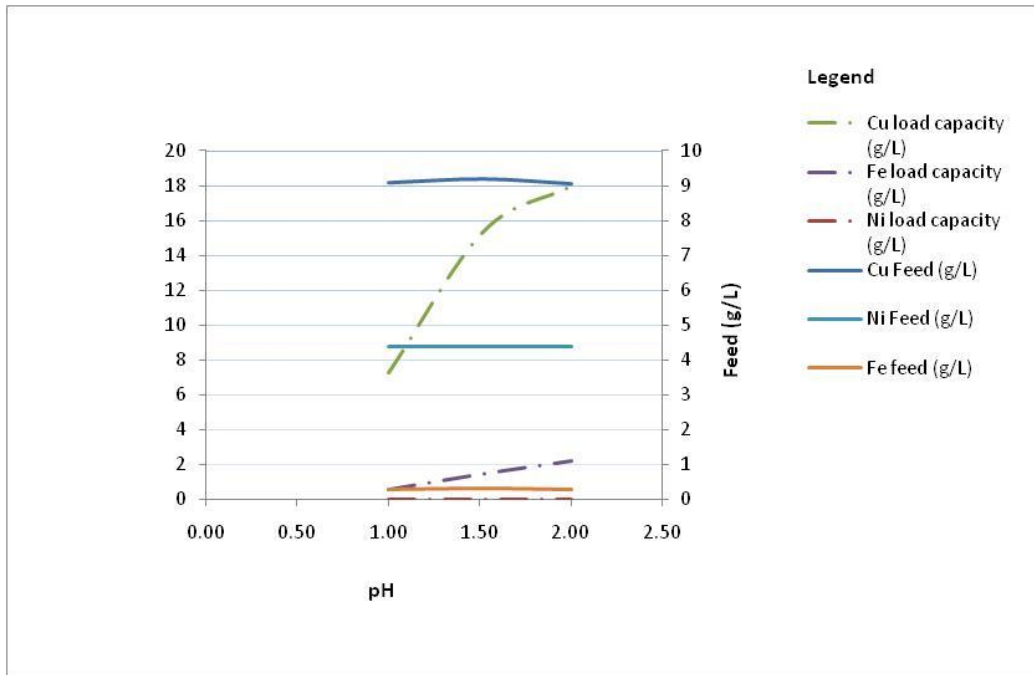
Data in g/L

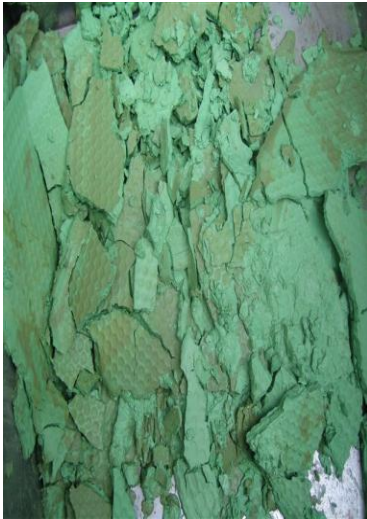
Leach Solution primary metals recovery by styrene ion exchange resin to produce impure concentrate solution

WP-4 separation of iron and copper

WP-4 elute product precipitation to remove ferric iron followed by copper precipitation to produce copper carbonate

WP-4 adsorption out staged precipitation to remove impurities followed by either EX to produce cathode or nickel precipitation to produce MHP





MHP (Mixed Nickel Cobalt
Hydroxide)



EMEW^(R) Nickel Cathode

Picture courtesy of Electrometals Technologies Ltd.

WP-4[®] KEY PRODUCT FEATURES

- ▶ Rejection of nickel
- ▶ Rejection of Na, K, Ca & Mg @ pH <8
- ▶ Long resin life span with <10% loss in loading capacity after 10,000 cycles (excludes any losses due to attrition in the column)
- ▶ Zero swell or shrink on contact with liquids
- ▶ May be eluted with H₂SO₄, HNO₃, HCL & NH₃
- ▶ Process temperatures of up to 110 C may be used

- ▶ **Nominal pH operating range 1 to 8**
- ▶ **Shipped with <10% moisture**
- ▶ **Not suitable for use with HF & NaOH > 1M**
- ▶ **Shipped in acid form**
- ▶ **Cycle components are load, load wash, elute, elute rinse and then back to load. No replacement of either a H⁺ or OH⁻ ion is required.**

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