

CHIMERICAL TECHNOLOGY

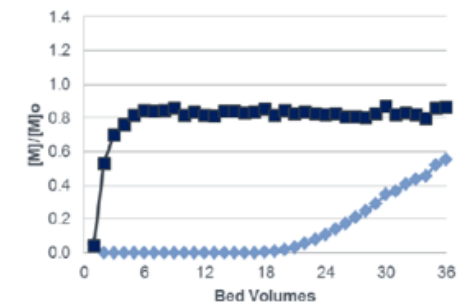
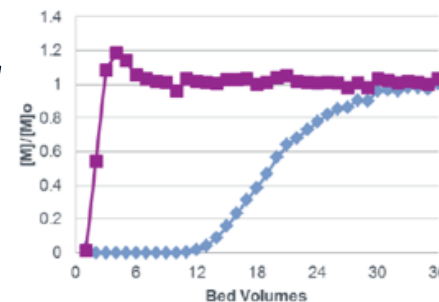
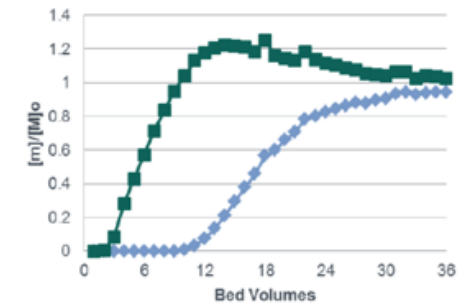
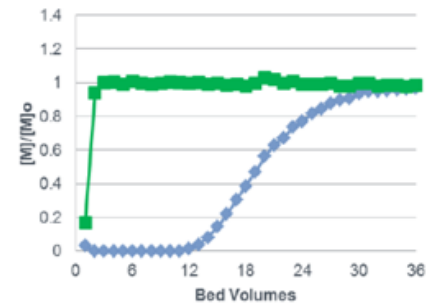
ADVANCED ION EXCHANGE

Chimerical Technology has a technology development partnership with PQ Corporation, for silica polymer composite resins with high selectivity for various ions for the mining, pharmaceutical, water industry and more.

TARGETING SELECTIVE RECOVERY AND SEPARATION OF TARGET METALS FROM AGGRESSIVE SOLUTIONS USING SPECIALIZED RESINS

AIX RESINS HAVE THE FOLLOWING BENEFITS:

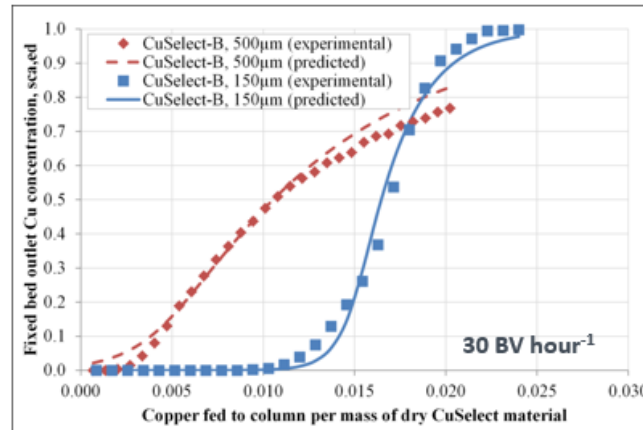
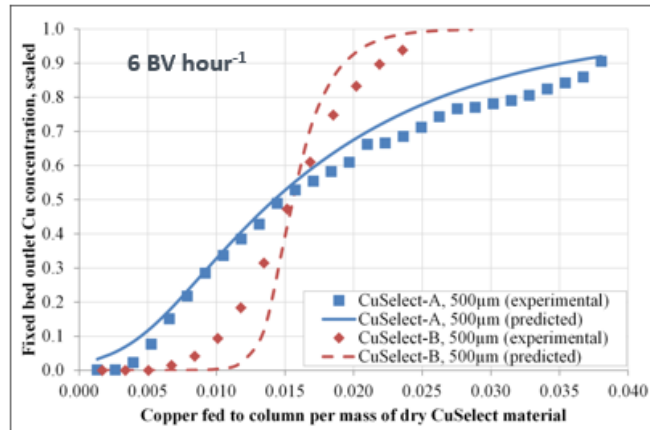
- FLEXIBLE ALTERNATIVE TO POLYMER IX MATERIALS
- ENABLES SEPARATIONS AND SELECTIVITY UNAVAILABLE WITH POLYMER IX
- WIDER PH OPERATING RANGE
- DOES NOT CHANGE VOLUME WITH PH SHIFT
- ALLOWS FULLY LOADED BEDS
- IMPROVES UNIT VOLUME THROUGHPUT
- METALS CAN BE ELUTED FOR MULTIPLE RESIN USE



HIGH TECHNOLOGY PROCESSES ADDRESSING NICHE WATER CONTAMINATION ISSUES, METAL RECOVERIES AND OTHER INDUSTRIAL PROCESSES

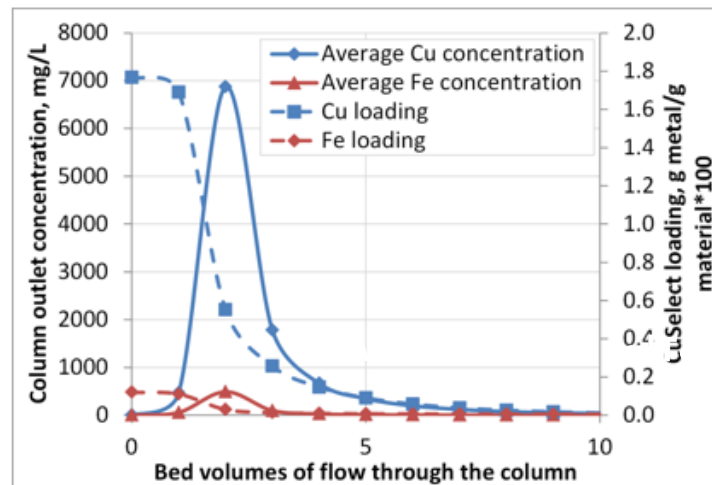
COPPER SELECT

- A PROCESS FOR THE SELECTIVE RECOVERY OF COPPER IN PRESENCE OF FE AND OTHER CONTAMINANTS, E.G. COPPER MINING (SX RAFFINATE TREATMENT OR EW BLEED), ACID MINE DRAINAGE, INDUSTRIAL WASTE EFFLUENTS
- CUSELECT MATERIAL OPTIMISED TO DELIVER RAPID KINETICS REQUIRED TO TREAT HIGH FEED FLOW RATES AND RECOVERY > 99.9% OF CU



KEY RESULTS

- CUSELECT AVAILABLE IN VARIOUS SIZES, E.G. 500MM AND 150MM
- HIGH PH TOLERANCE, AS LOW AS PH 1, OPTIMUM PERFORMANCE AT PH 2
- >90% MATERIAL UTILISATION ACHIEVABLE EVEN AT 30 BV HOUR⁻¹



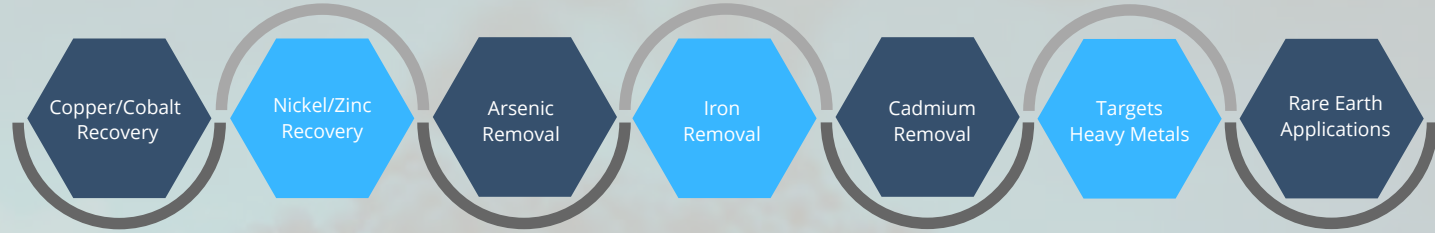
KEY RESULTS

- SHARP ELUTION PROFILE, RESULTS IN HIGH CONCENTRATION CU AT HIGH PURITY (>95% PURE)
- FULL STRIP COMPLETE WITHIN 10 BED VOLUMES

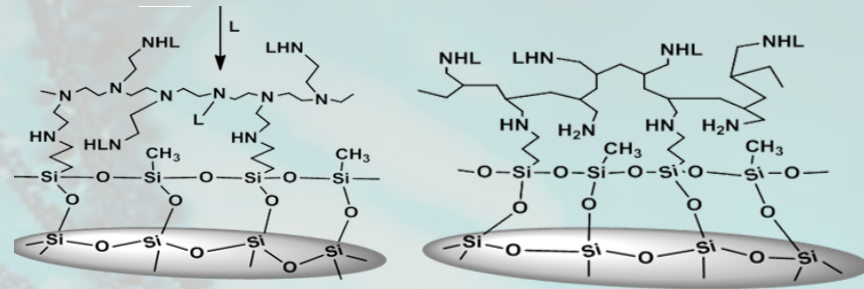
Contaminants	Technology Platforms	Initial Target Markets
Metals	Ion Exchange	Mining and Industrial
Ions	E-Separation	Mining and Industrial
Organics	Oxidation	Oil and Gas Chemical Power
Biological	E-Generation	Oil and Gas Chemical Power



AlphaSelect Ion Exchange Resins

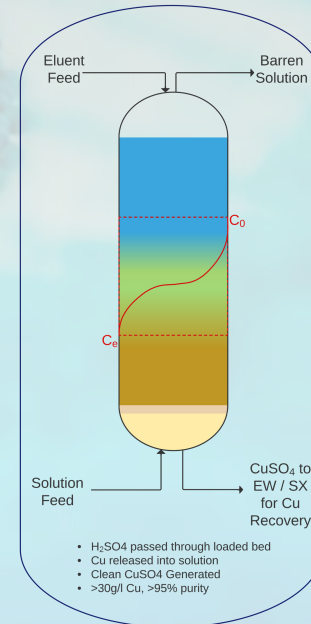


Unique range of Advanced Ion Exchange resins that enable mining operations and metal processors to improve sustainability, value recovery and environmental compliance.



Our full Technology Turnkey approach is suitable in applications such as:

- Solvent extraction bleeds
- Cu Wash / decant streams
- Acid Mine Drainage (AMD)
- Pregnant Leach Solutions
- Tailings pond remediation
- Industrial plating effluents



Unique benefits provided by the silica composite AlphaSelect resins include:

- High Selectivity: recovery of specific metal ions from low quality, mixed ion streams.
- Robustness: High mechanical strength as resins do not swell / shrink.
- Small footprint: Small beds due to high utilisation & kinetics.
- Easy onward processing: High purity & concentration product stream.
- Extended Resin Lifespan: Highly resistant to contaminants.