

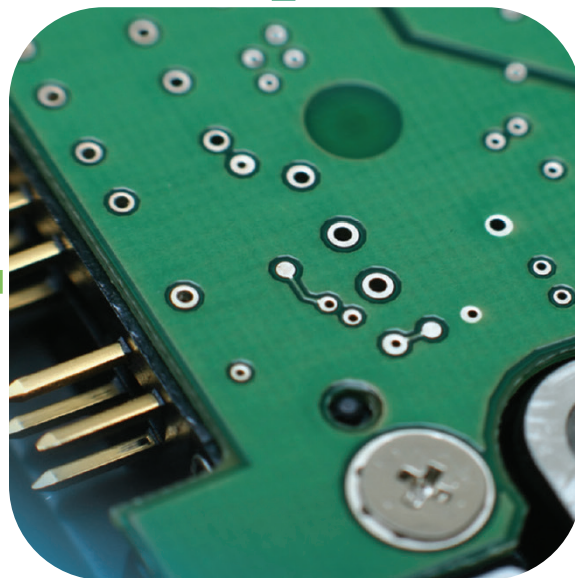
Maximising potential returns

Electronics Application Note

Precious metal recovery for high volume manufacturers

About PhosphonicS

At PhosphonicS, our scientists relish the challenge presented by high volume manufacturing companies in the electronics industry to recover value from their waste streams. We specialise in designing simple solutions to complex metal recovery problems using the smartest silica technology to optimise results.

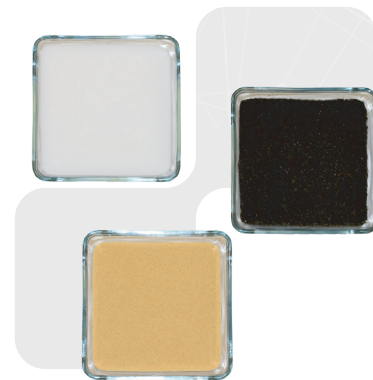


Optimum value recovery

- Best return on investment
- Simple solution to a complex problem
- Smartest technology

Introducing PhosphonicS Precious Metal Recovery Products

The Phos series of silica products are designed to recover precious metals from your process and waste streams.

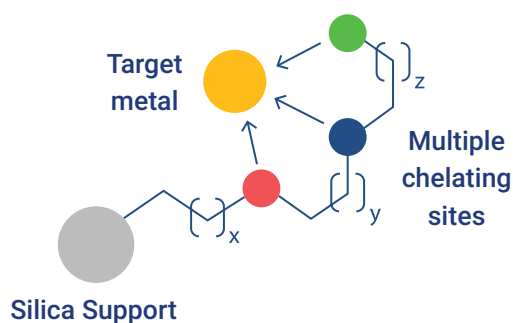


Product code	Product name
Phos-01	Mercaptoalkyl 2 functionalised silica
Phos-02	Aminoalkyl 3 functionalised silica
Phos-03	Aminoalkyl 1 functionalised silica
Phos-04	Mercaptoalkyl 1 functionalised silica
Phos-05	Mercaptoalkyl 4 functionalised silica
Phos-06	Alkyl thiourea functionalised silica

You can order your Phos Screening Kit in a convenient 10g size. Please refer to Phos-Kit 10 when ordering.

What Makes PhosphonicS Unique?

PhosphonicS uses patented technology for attaching powerful ligands to a silica backbone. The ability to incorporate multiple chelating sites enables our silica products to outperform other solid supported products, at every concentration of precious metal in your stream.



Advantages of the Phos series

- More powerful than standard solid adsorbents
- Designed to only recover precious metals
- Superior recovery performance

Advantages of silica as a support

- Highly porous for optimised stream flow
- Stable in both aqueous and organic media
- Larger surface area for higher loading

Order Your Phos Screening Kit

To order your Phos Screening Kit send an email requesting a Phos-Kit 10 to sales@phosphonics.com

Case Studies

Recovering precious metals in the electronics industry

Precious metals are widely used in the electronics industry due to their unique physical properties.

In particular, their ease of use in manufacturing operations involving soldering and bonding processes make them the materials of choice for high quality, high precision operations. In addition, the high abrasion and corrosion resistance of precious metals make them ideal for forming thin films and for use in semiconductor wafer manufacture.

To meet the ever growing global demand for high volumes of electronics components and to remain competitive, it is imperative that companies operating in this industry maximise their returns by recovering value from traces of precious metals in their waste streams.

PhosponicS: With you all the way

We work closely with you to design the right solution for your problem, from initial testing to full scale manufacturing implementation. Dovetailing into your process development and operations, we follow a step by step analysis to deliver simple solutions to optimise value recovery from your low ppm concentration waste streams.



Result

- >99.5% Pd recovery
- 40-60g/kg loading

Stream

- Pd (5-40 ppm)
- Aqueous, pH 5.5
- 116 m³ treated p.a.

Pd recovery from PCB manufacture



Result

- >99.5 % Au recovery
- 40-50 g/kg loading

Stream

- Au (85-100 ppm)
- Aqueous, pH 4
- 55 m³ treated p.a.

Au recovery from semiconductor manufacture



Result

- 98 % Pd recovery
- 22g/kg loading

Stream

- Pd (586 ppm)
- Aqueous, pH 5
- 5 litres

Recovering Pd from an agrochemical process stream

Contact PhosponicS

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