

ISTN

<http://www.istninc.com>

CSMG – Metalsorb™: Highly Efficient Selective Adsorbent

Company Information

Industrial Science & Technology Network, Inc. (ISTN Inc.) is a US-based Research and Development company with extensive knowledge in Nanotechnology. ISTN Inc. was founded in 1997 by Dr. Arthur Yang, and has since received many US and International grants and contracts for R&D in Nanotechnology. The company has over 10 years of R&D experience in organic-inorganic nanostructures. Researchers at ISTN Inc. are experts in customized water treatment technologies and optical functional coatings. We also actively conduct biotechnology research in the fields of Drug Delivery and Enzyme Immobilization Technologies. ISTN Inc. works very closely with our customers to provide the ideal customized solution.

Highly Efficient Adsorbent for Low-Level Contaminated Water

CSMG™ refers to a family of extremely efficient *reactive adsorbent* that selectively removes heavy metal ions and precious metal ions from contaminated aqueous water streams. This innovative patented platform technology from ISTN Inc. utilizes nanotechnology to integrate high-efficiency adsorption, high-capacity and rate-accelerating catalysis into one structure. CSMG™ treatment system designs are flexible and allow maximum usage customization.

CSMG-Metalsorb™ Product Description

CSMG-Metalsorb™ is the fastest adsorbing and most efficient product form of the CSMG™ family. It is highly effective in removal of lead from slow-moving aqueous streams. With its micron-sized particles, it can be easily adapted to various types of treatment applications. Current applications of this material include removal of low-level lead in ground water and batch treatment of cadmium contaminated waste streams from recycling plants.

CSMG-Metalsorb™ Technical Data		
	Adsorption (mg/g)* at Eq.	Efficient Treatment Level
Pb ²⁺	1500	< 0.01 ppm
Cd ²⁺	105	< 0.05 ppm
Zn ²⁺	65	< 1 ppm
Cu ²⁺	65	< 1 ppm

* calculated mg of metal adsorbed per g of dried CSMG-Metalsorb™

CSMG-Metalsorb™ Product Features

- Selectively adsorb Lead, Cadmium, Zinc, and Copper
- Selective adsorption capacity not wasted on non-targeted metal ions
- Proprietary reactive adsorbent designed for enhanced performance characteristics
- Physically and chemically stable
- Can be used on a standalone basis or integrated into existing infrastructure

CSMG™ Technology is patented in the United States, Australia, and China. Other US and International Patents are pending.

ISTN Inc. actively develops and improves CSMG™ technology for additional adsorption capabilities and treatment applications. In the near future, CSMG™ technology may potentially be used for drinking water applications. ISTN Inc. is seeking additional development partners to broaden the scope of this technology.

ISTN Inc. Contacts

BUSINESS INQUIRIES:

Hans Lee
Business Development Manager

INDUSTRIAL SCIENCE & TECHNOLOGY NETWORK, INC.

2101 Pennsylvania Ave. York, PA 17404, USA
Phone: +1 717 843 0300
Fax: +1 717 843 0705
E-mail: sales@istninc.com

TECHNICAL INQUIRIES:

Roman Domszy, Ph.D.
Research Scientist