

SCHEM



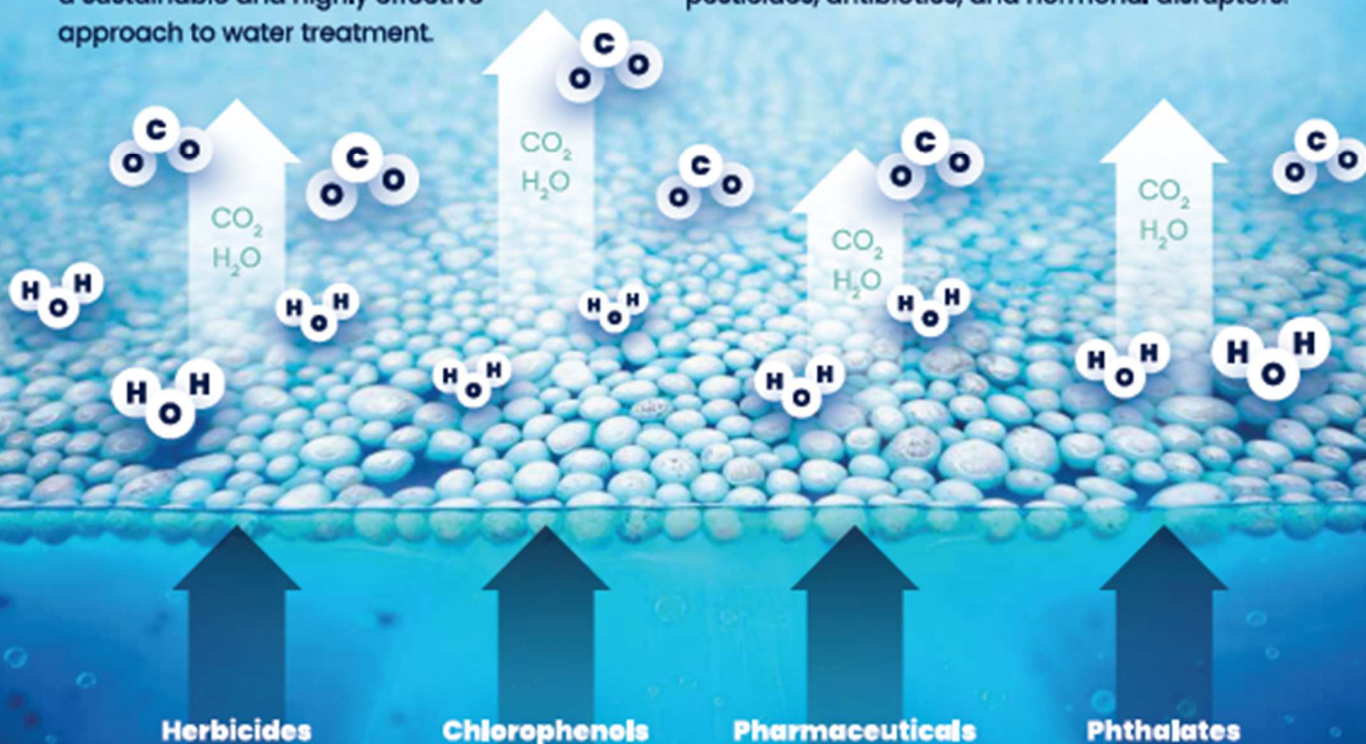
SOLARDECONT

The Floating Photocatalyst
for Solar Water Decontamination

**Solar-assisted
photocatalytic
degradation**

SOLARDECONT is innovative solution for surface water purification. This inorganic floating photocatalyst with a synergistic sorption function offers a sustainable and highly effective approach to water treatment.

Solardecont combines advanced photocatalytic technology using highly active TiO_2 (anatase form) with activated carbon, ensuring efficient degradation of a wide range of organic pollutants, including pesticides, antibiotics, and hormonal disruptors.



Thanks to its lightweight, floating carrier made of foamed glass recylate, **SOLARDECONT** is easily applicable directly to the water surface.

This eco-friendly and cost-effective technology is perfect for environmental projects, industrial applications, and water treatment in developing regions. Successful testing in Vietnam has proven **SOLARDECONT**'s robustness and versatility, harnessing the power of sunlight for efficient and repeated use in the fight against water pollution.

KEY BENEFITS

1 Eco-friendly Material

Use of recycled-glass carrier and exclusively inorganic substances prevents the risk of self-degradation and release of harmful substances.

2 Long-Term Stability

Verified structural integrity and buoyancy in water for several months, enabling continuous and reliable use.

3 Reusable and Durable

SOLARDECONT maintains high photocatalytic efficiency over multiple cycles, demonstrating excellent mechanical and chemical stability.

4 Effective Pollutant Removal

Efficiently degrades a broad spectrum of organic pollutants, including pesticides, antibiotics, and endocrine disruptors, as well as their degradation intermediates.

5 Sunlight-Powered

Utilizes solar energy as a sustainable and cost-effective irradiation source, ideal for real-world applications without the need for additional energy input.

6 Simple and Safe Application

The lightweight, floating composite is easy to apply directly on the water surface, ensuring prolonged contact with pollutants and maximizing efficiency.

SEM/EDS image illustrates crosssection of SOLARDECONT particle: the functional layer of the photocatalyst (green) and selective sorbent (purple) deposited on foamed glass carrier

