



# Photocatalytic Solutions Create Self-Cleaning Surfaces

***Stennis Space Center***

***PURETi Inc.  
New York, NY***

## **NASA Technology**

- ◆ NASA scientists were looking toward technology that could purify water and eliminate harmful substances on spacecraft during missions.
- ◆ Photocatalysis is a process whereby light energizes a mineral that then breaks down organic matter, including harmful chemicals.

## **Technology Transfer**

- ◆ Through a Dual Use Technology partnership with NASA, PURETi was able to prove the worth of its titanium dioxide-based photocatalyst, which is set to liquid and, therefore, easy to apply to surfaces.
- ◆ The cost-sharing collaboration allowed PURETi's products to meet both NASA and commercial needs.
- ◆ The company won the *Popular Science* Green Tech 2011 Innovative Product of the Year Award.



## **Benefits**

- ◆ On building facades, the photocatalytic coating, through its cleansing properties, reduces maintenance by more than 50 percent.
- ◆ Indoors, the technology eliminates odors and creates hospital-grade air quality.
- ◆ Studies underway to understand clean air's benefit on cattle may expand the product's use.