

NEW DIMENSION, PHOTOCATALYST OF THE PARTICLE'S SHAPE

TRANSPARENT & COLORLESS is particular points !

REDOX is the first product as transparent and colorless water dispersion. It is resolved to up to the quark and dispersed in water.

What is PHOTOCATALYST?

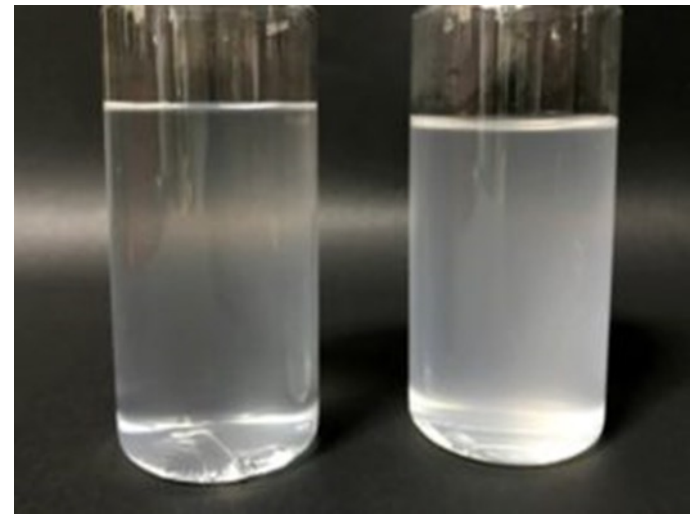
Photocatalyst is an ecological substance, titanium dioxide is well-known and representative, which produces strong oxidation power taking lights such as sunlight and removes contacting organic materials and bacteria.

However the particles of titanium oxide cannot bond with substrate materials. Besides it is a white powder and so may spoil the appearance.

Titanium dioxide water dispersion, REDOX proposes, is the world first transparent and colorless titanium dioxide dispersed water solution. Titanium dioxide quark can bond with substrates electronically and give full scope to its effect as photocatalyst surely, sustainably and stably without changing appearance and feel of the substance.

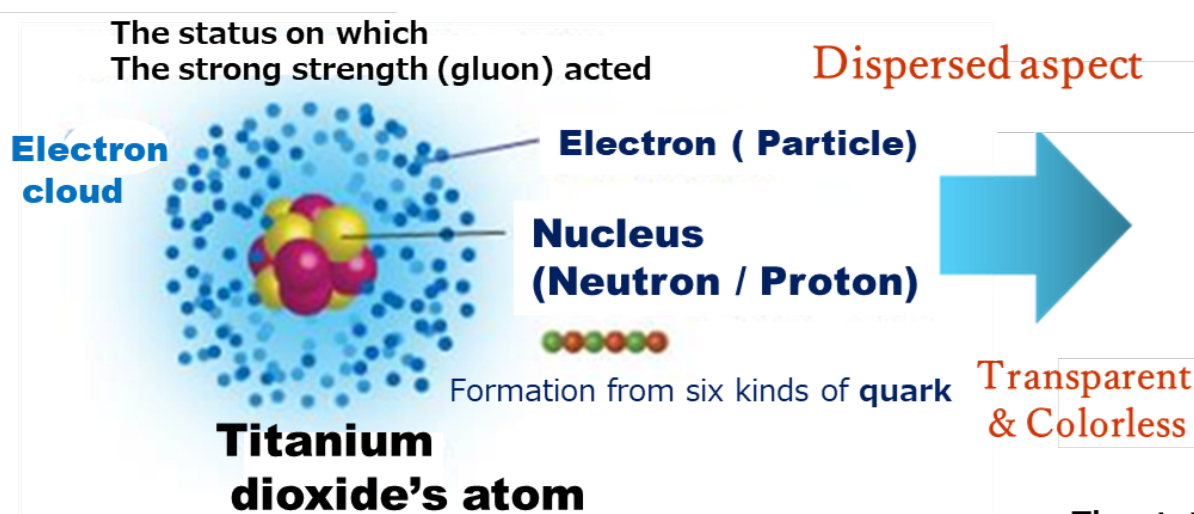


Titanium dioxide is insoluble in water.



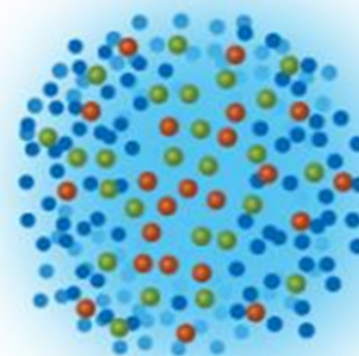
Nano-sized titanium dioxide becomes a clear or slightly clear aqueous dispersion, but it solidifies and becomes cloudy over time. Titanium dioxide is not stable in water.

Structure of Titanium dioxide's atom

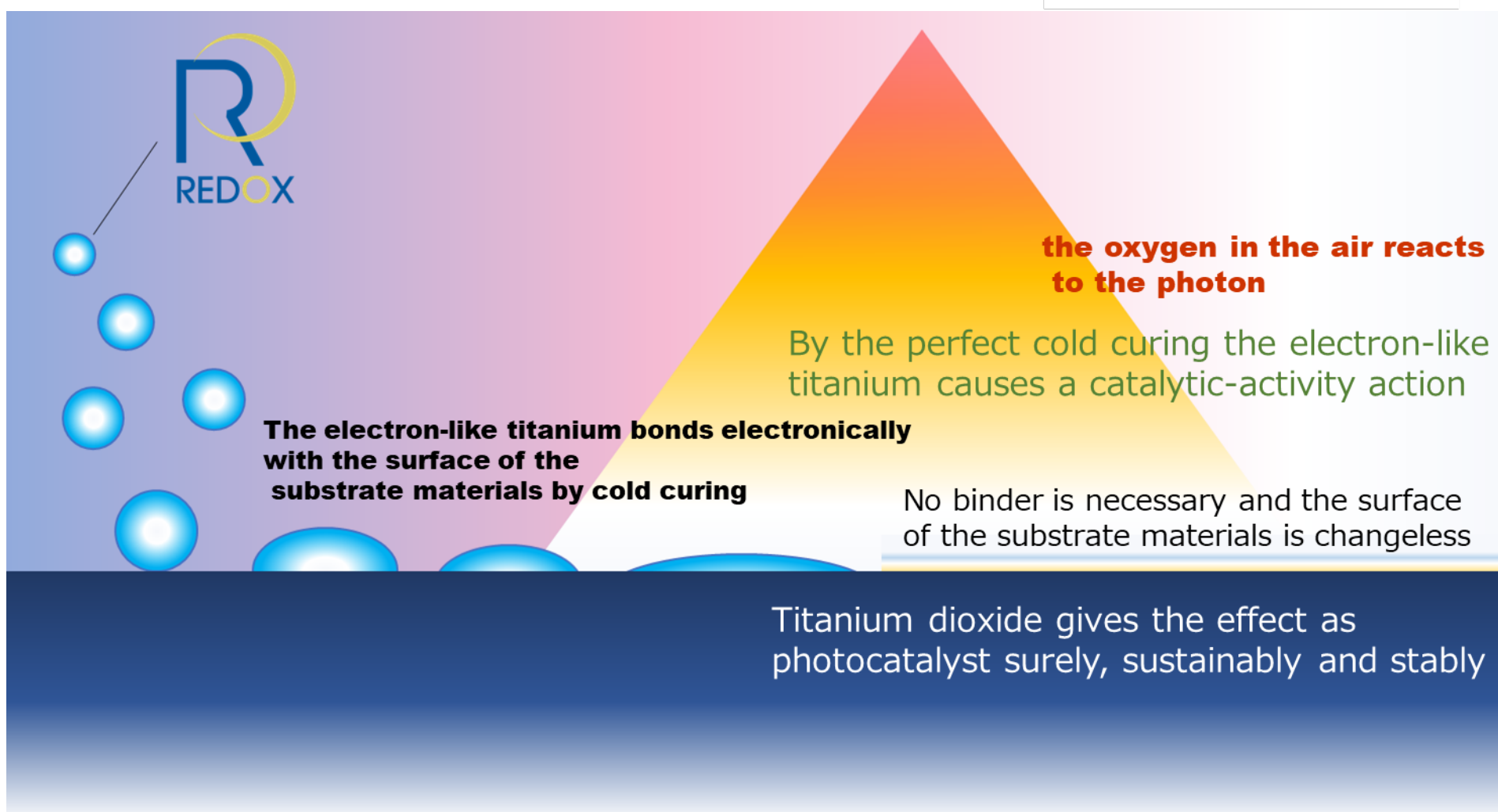


REDOX, dispersing in water

The status on which The weak strength (W · Z boson) acted



The status of the dispersed titanium dioxide in water
The diameter of quark is under $10^{-19}m$



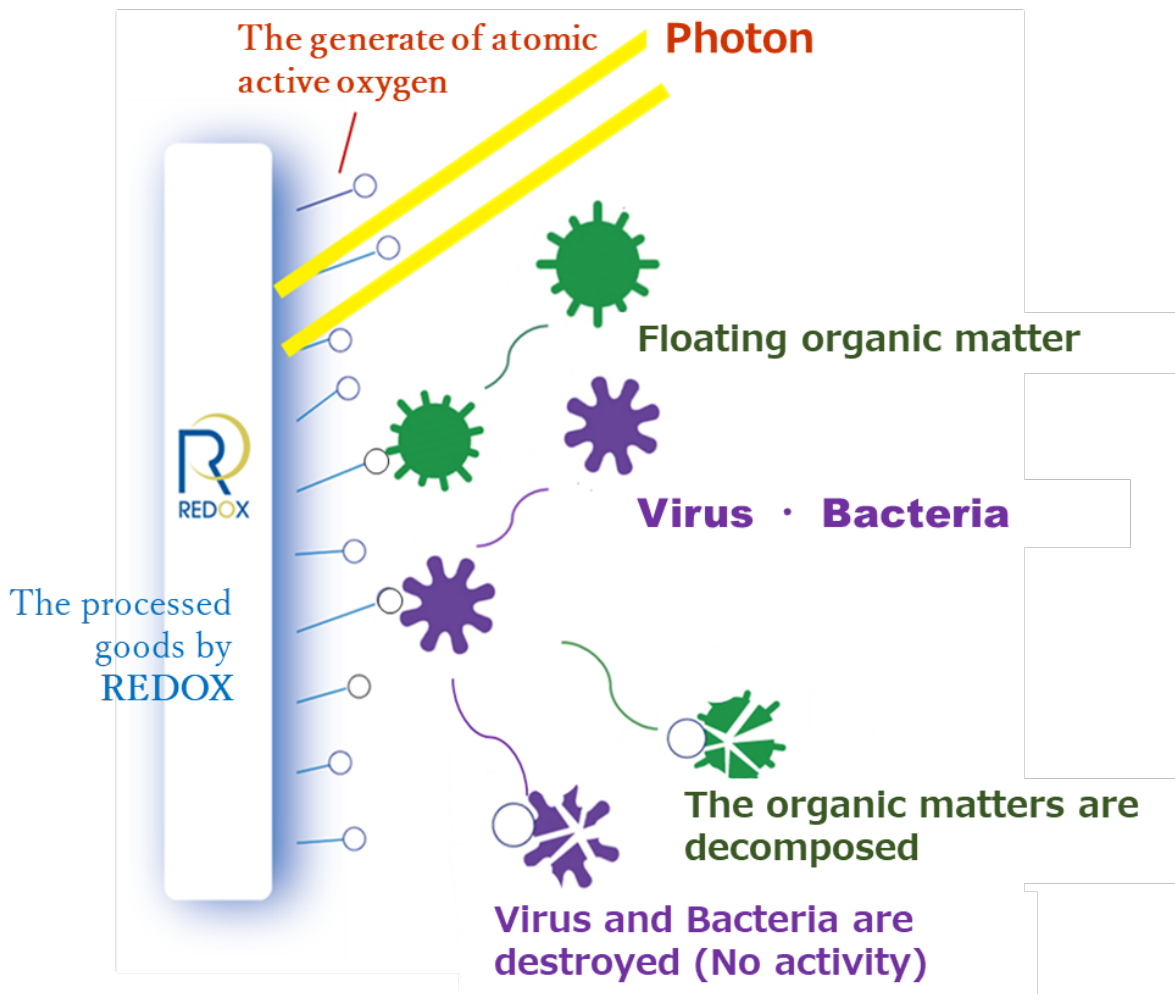
REDOX overthrows the common knowledge.

The application is same, but **REDOX** is quite different from the former photocatalyst. **REDOX** has genuine effects.

ANTI-BACTERIA **ANTI-VIRUS** **ANTI-MOLD** **ANTI-FOULING**
DEODORANT **DEODORIZE** **ENVIRONMENTAL-MEASURES**

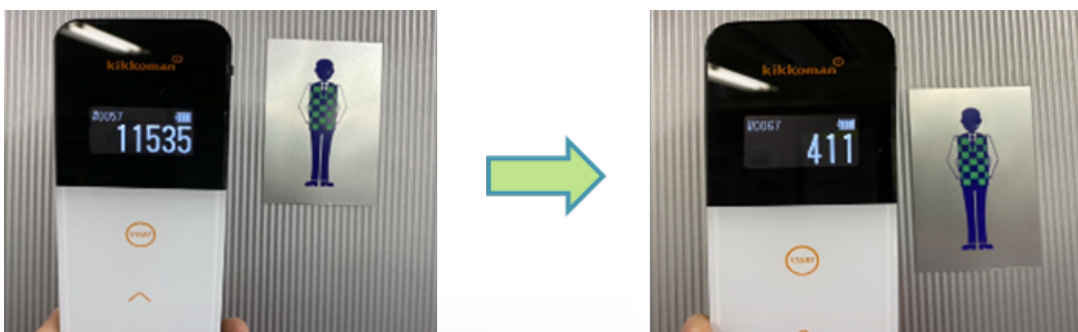


REDOX was proved safety by Skin Irritancy Test, Acute Transcutaneous Test, Acute Oral Toxicity Test and Water Quality Inspection (Food Sanitation Act) and so can be used safely to human body. Besides **REDOX** is transparent and colorless not to spoil the appearance or spectacle and preserves effectiveness for a long period of time.



Can be coated leaving substance feel and appearance as it is. No binder is necessary.

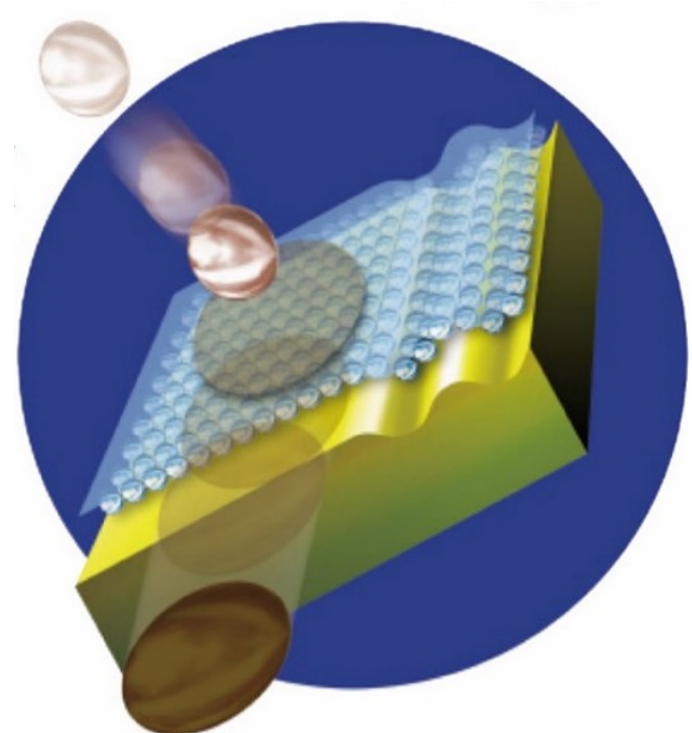
Atomic active oxygen is generated on the **REDOX** processed surface by a reaction of photon and air, and it decomposes the organic matters on atomic level and destroys virus and bacteria.



We checked the ATP's numerical value by wiping investigation of ATP+ADP+AMP, using kikkoman's Lumitester Smart .

All lives have the ATP and the ATP exists in all kinds of organic matter, also including food and bacteria.

If the numerical value of ATP is high , we judge whether the surface of the wiping substance is unclean , and its cause is washing insufficient.



Invisible coating was realized!

The coated surface gets hard to be stained. We can clean the dirt easily with water. We can use **REDOX** for the materials at our ease too of which appearance, gloss and feel are to be kept without damage.