

Photopaque®

Visible Light Activation Type

MPT-623 (Powder)

STS-427 (Water dispersion)

Photopaque MPT-623 is a photocatalytic TiO₂ treated with platinum compound, developed by ISK's unique technology which shows high photoactivity under visible light.

STS-427 is a water dispersion of MPT-623.

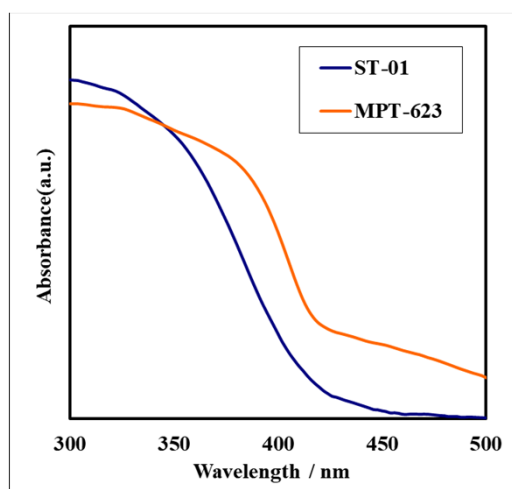
Under the indoor fluorescent lamps MPT-623 and STS-427 have a high activity of decomposing acetaldehyde, which causes odor, and also have a high antiviral activity.

★Basic Properties

| | Visible light activation type | UV light activation type |
|-------------------------|-------------------------------|--------------------------|
| | MPT-623 | ST-01 |
| X ray diameter (nm) | 18 | 7 |
| SSA (m ² /g) | around 60 | around 300 |
| Surface treatment | Pt compound | non |

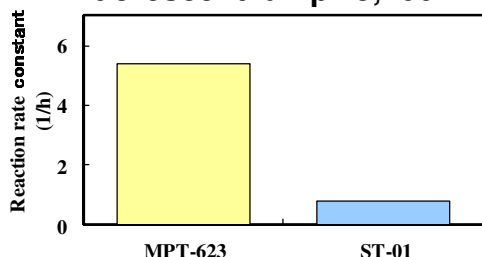
| STS-427 (dispersion of MPT-623) | |
|------------------------------------|-----------|
| Solid concentration (%) | 18~22 |
| pH | 7.0~9.0 |
| Mean particle size (μm) | 0.05~0.10 |

★Photo-absorption characteristics



★Activity of decomposing acetaldehyde

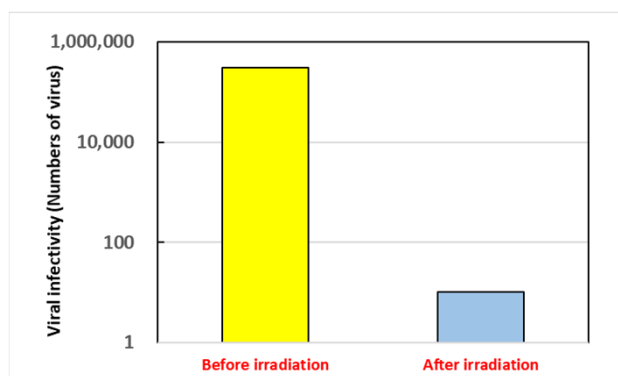
fluorescent lamp : 5,700lx



【Method of measurement】

- Closed circulation reactor
(Acetaldehyde Initial concentration :150ppm)
- Sample tested : 0.1g
- Exposed area : 28.3cm²
- Reactor volume : 2.8L
- Circulation rate : 3L/min

★Antiviral activity test ((bacteriophage Qβ)



Virus is reduced under the visible light significantly.
Meet the performance standards of
Antiviral activity value of Photocatalysis
Industry Association of Japan.

【Test method】

JIS R 1756

- ※Fluorescent lamp : 500lx, 4 hours
- Sharp cut filter Type B
(Cutting below 380nm of UV)