

Multi-functional Transparent Nano-Coating for Glass

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A novel long-term glass multi-functional layer is developed by uniform coating nanoscale TiO_2 and Antimony doped tin oxide (ATO) mixture particles as the main material on various glasses. The TiO_2 nano-particles are synthesized by low-cost hydrothermal method while the ATO by high-temperature calcination technique.



This coating is featured by super-hydrophilic self-cleaning property, thermal insulation property and photocatalysis property. With contact angle of less than 5° , the coating can block over 70% IR/90% UV light but transmits more than 70% of visible light. It can also break down organic pollutants.

The innovation proposes a special formula from which water could be used as the dispersion medium of the precursor that could realize the good effect of no harm to human beings.



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