

# Can photovoltaic panels be coated with anti-fingerprint liquid



## Overview

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Scientists at Al-Azhar University in Egypt have developed a hydrophobic nanocoating with a self-cleaning effect that can reportedly increase the efficiency of solar panels by up to 30. Solar cells are photovoltaic (PV) devices that absorb sunlight and convert it into electricity. Whether based on crystalline silicon (c-Si) or thin-film materials like perovskite [1, 2, 3] or copper indium gallium selenide (CIGS), these cells are vulnerable to harsh outdoor environments. The self-cleaning coating bounces water off, carrying dirt with it, while cleaning the surface. Light, however, passes through the 100% optically clear coating.

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### ANTI-FINGERPRINT COATING MAKES FINGERPRINTS

Coating process has developed a novel anti-fingerprint nano-coating. The anti-fingerprint effect means that fingerprints on the surface cannot be seen at all by the naked eye, or only very slightly. Although

### [High-performance multi-functional solar panel coatings: recent](#)

This review provides an overview of the current state of solar panel coatings with various functionalities such as self-cleaning, anti-reflection, anti-fogging, and self-healing.



### [Antireflective, photocatalytic, and superhydrophilic coating prepared](#)

In this work, commercial solar panels were coated with sparked titanium films, and the antireflective, super-hydrophilic, and photocatalytic properties of the films were investigated.

### Hydrophobic nanocoating to reduce soiling in solar panels

Scientists at Al-Azhar University in Egypt have developed a hydrophobic nanocoating with a self-cleaning effect that can reportedly increase the efficiency of solar panels by up to 30.7%.



### Surface engineering for anti-fingerprint



### Solar Panels - Diamon-Fusion International

Diamon-Fusion(R) is a versatile protective glass coating that can be used for both residential and commercial solar panel applications. So, whether you are a homeowner or building owner, Diamon

### applications

A new approach to AF treatment is not to prevent fingerprint but to hide it. The phenomenon, now called 'invisible fingerprint' (IF) is enabled through the use of oleophilic rather than



### [A Brief Review on Self-cleaning Coatings for Photovoltaic Systems](#)

In the last decade, self-cleaning coatings have been explored for cleaning the solar panel surfaces, thereby reducing O&M costs.

### Sol-Gel Derived Dual-Functional Organosilicone Coating for

Consequently, the application of a porous silica-based anti-reflection (AR) coating, often applied via sol-gel chemistry, has become standard in solar panel manufacturing [7]. Float glass



### Nano Coating for Solar Panels , Nanocoating

Nano coating, also known as nanocoating or nanotechnology coating, involves applying a liquid polymer containing nanoparticles to the surface of solar panels. These nanoparticles are typically composed

## **Solar Panel Ceramic Coatings , Element 119**

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