Luminous glass for solar applications

All-inorganic visibly-transparent energy-harvesting clear laminated glass windows are the most practical solution to boosting building-integrated photovoltaics (BIPV) energy outputs significantly while ...

The resulting window achieved excellent transparency-opaque switching, with a solar modulation rate of 83.59 % and luminous modulation rate of 78.89 %, effectively reducing indoor ...

Despite the abundance of solar radiation, significant energy losses occur due to scattering, reflection, and thermal dissipation. Glass mitigates these losses by functioning as a ...

In this review, we discuss the different materials that are used to achieve a highly efficient smart window design that will ensure human visual comfort and ultimately minimum energy ...

Photovoltaic glass is a type of glass that integrates solar cells into its structure, allowing it to generate electricity from sunlight.

Glass-glass encapsulation, low-iron tempered glass, and anti-reflective coatings improve light management, durability, and efficiency. Advances in glass compositions, including rare-earth...

Photoluminescent glass applies these unique properties to photonics, lighting, and photovoltaics by applying light down-conversion from UV to visible or near-infrared light, suitable for devices, smart ...

Our range of solar glass products includes NSG TEC(TM), Pilkington Optiwhite(TM), and Pilkington Sunplus(TM). Each of our solar glass solutions are optimised to suit specific technologies, making NSG ...

Vanadium dioxide (VO 2) stands out as a versatile thermochromic material for smart windows owing to its reversible metal-to-insulator transition (MIT) alongside correlated structural and ...

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