

Alumina solar glass





Overview

Superhydrophobic surfaces based on aluminium oxide coatings had been developed on glass substrates via solution based approach for solar panel cover glass applications. The fabricated surface was a.

Can alumina (Al_2O_3) glass be fabricated?

The fabrication of novel oxide glass is a challenging topic in glass science. Alumina (Al_2O_3) glass cannot be fabricated by a conventional melt-quenching method, since Al_2O_3 is not a glass former. We found that amorphous Al_2O_3 synthesized by the electrochemical anodization of aluminum metal shows a glass transition.

Can aluminium oxide nanoflakes be used as cover glass for solar panels?

In brief, fabricated porous interconnected network of aluminium oxide nanoflakes holds a great promise as cover glass for solar panels with anti-reflective and self-cleaning superhydrophobic characteristics. 4. Conclusions.

Is alumina an intermediate?

Alumina (Al_2O_3) can be considered as an intermediate, because it can be both a glass former and a glass modifier in binary oxide glasses, although Al_2O_3 cannot solely form glass. Al_2O_3 has many applications, e.g., in cements, substrates of electronic materials, and high-temperature crucibles.

Can alumina (Al_2O_3) glass be fabricated by a melt-quenching method?

The fabrication of novel oxide glass is a challenging topic in glass science. Alumina (Al_2O_3) glass cannot be fabricated by a conventional melt-quenching method, since Al_2O_3 is not a glass former. We found that amorphous Al_2O_3 synthesized by the electrochemical anodization of aluminum metal shows a glass transition.



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