

Abstract

Provided is an inexpensive material having a photocatalytic action. A photocatalyst is obtained by halogenation-treating glass fibers containing silicon dioxide in its components. Fused quartz, soda-lime glass, non-alkali glass, and borosilicate glass may be used for the glass. Hydrofluoric acid, hydrochloric acid and hydrobromic acid may be used for the halogen acid, and hydrofluoric acid is most desirable. The glass can be particulate, fibrous or sheet form material. The glass exhibits a photocatalytic action even with visible light other than ultraviolet light, and also water repellent effect. The glass according to the invention is capable of decomposing organic substances, and therefore, it is used for window glass in buildings or in transportation such as automobiles, when formed in a plate shape, and for a filter in an air intake/exhaust apparatus, when formed in fibrous shape.