

Color of glaciers observed from satellites

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Color of glaciers is not always blue or white. It shows variety of color, such as brown, black, red, green, and yellow. These colors are usually due to impurities in snow and ice. Mineral dust blown from desert could change the color to brown, and black carbon from fuel or biomass burning could change to black. Microbes growing on snow and ice could change the color to red, green, yellow and black. Color of glaciers is glaciologically important since change of surface color results in reduction of surface albedo and accelerating glacier melting. However, we still do not exactly know geographical distribution of color of glaciers in the world. Sattelite remote sensing could be useful for investigating the spatial distribution of impurities of snow and ice over a large area of snowfields and glaciers.

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