

## **Celebrating light-based science**

The optical phenomenon known as a halo forms when light from the Sun or another source gets refracted by ice crystals in Earth's atmosphere. Although typically found in high, thin cirrus clouds, crystals known as diamond dust can sometimes be found close to the ground. Halos are more frequently observed than rainbows, and of the many halo configurations, the circular so-called 22° halo, produced when hexagonal ice crystals have a wide distribution of orientations, is among the most common. The name arises from the angle by which the crystals deflect the light at the circle's inner edge.

This photo of a 22° halo, taken in December 2012 in Germany's Harz National Park by Wikimedia Commons user Lars0001, is part of the crowd-sourced image collection assembled for the international exhibition program "Light: Beyond the Bulb" (http://www.lightexhibit.org). The United Nations has proclaimed 2015 as the International Year of Light and Light-Based Technologies. "Light: Beyond the Bulb" is one of the celebration's cornerstone projects. Developed by the Chandra X-ray Center and sponsored by SPIE with support from the International Astronomical Union, the project showcases the variety of light-based science being researched today across the electromagnetic spectrum, across scientific disciplines, and across technological platforms.

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