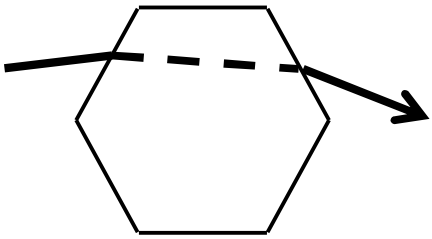
The halo: the ‘little ice brother’ of the rainbow.

G.P. Können, Terschellinger diary 2013/01

Catch question during a fine summer day: ‘How far are we from the nearest point with temperatures below freezing’. Answer: ‘4 km – not to the north, but straight up!’

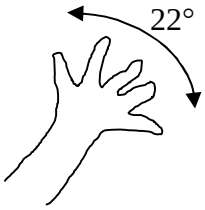
So: high clouds do not consist of water drops, but are made up of ice crystals. Sun-and-drops make a rainbow; sun-and-ice a halo: the little ice brother of the rainbow, on the sun-side of the sky. Best example: the ‘circle around the sun’.

Rain drops are round, and so is the rainbow. Ice particles angular and therefore halo shapes show a large variety: they appear not only as sun-centered circle, but also as arcs above or below the sun, or spots left and right. Everything in rainbow-like colors.



Halos are caused by refraction of light rays in ice crystals.

Halos appear more often than generally thought. In high cirrus clouds, still thin enough to transmit the light from the sun, they are regularly seen. They may assume spectacular shapes, in particularly when the sun is not too high. Most halos appear relatively close to the sun (at 22 degrees, the distance between little finger and thumb with streched arm).



(*Sorry, I lack drawing skills*)

Therefore put on your sun glasses in order to be able to look somewhat easier at a closer-than-usual vicinity of the sun. Before you know it you spot the circles, halo spots (the ‘parhelia’) and arcs, all with red on their inner sides.

A spectacular halo display. The wide angle lens compresses the phenomenon: in reality the size is enormous.

The picture shows a breathtaking halo, photographed in 1998 on the South Pole. Yet this picture gives only a poor impression of the spectacular view with the naked eye: halos are difficult to photograph faithfully.

In our region – also in mid-summer! – there may appear halo displays that visually make the same impression as the picture does. However, such displays are rare. Less rare are parts of such a display: for instance an isolated parhelion left or right of the sun, manifesting itself as a spot with rainbow-like colors. Or a circle around the sun hazily shining through cirrus veils.

The relaxed atmosphere on the beach or your terrace at home with a free view of the sky offers an excellent opportunity to put on your sun glasses and chase halos. You will be surprised at the number of hits!