

AWIPEV Arctic Research Base

Koldewey Station as part of the [French-German Arctic Research Base on Spitsbergen](#)

[Svalbard](#), Kongsfjorden, [Ny-Ålesund](#), Position (town center): 78°55'24"N, 11°55'15"E

Spitsbergen belongs to one of the northernmost archipelagos in the Arctic. Ny-Ålesund on the west coast is an international center for various modern Arctic research activities.

[Carl Koldewey](#), leader of the first German North Pole expedition in 1868, in his days already sailed the seas around Spitsbergen. Scientists of the Alfred Wegener Institute have been working in Ny-Ålesund since 1988. In August of 1991, the German research station 'Koldewey' was inaugurated. The station provides research facilities for scientists from various disciplines, such as biology, chemistry, geology and atmospheric physics. The Blue House has offices, bedrooms and living space for up to eight people.



In 2003, the Alfred Wegener Institute (AWI) and the [French Polar Institute Paul Emil Victor \(IPEV\)](#) merged their research stations in Ny-Ålesund into the joint [French-German Arctic Research Base](#). This base now includes the Koldewey Station buildings, the Rabot Station and the French Camp Corbel, 5 km east of Ny-Ålesund.

One major part of the scientific work at Koldewey Station is the observation of the north polar stratosphere. Since 1995, a laboratory built specifically for this purpose has been part of the station. A variety of optical instruments are installed on and operated from the roof of this building. An infrared spectrometer measures type and quantity of trace gases in the troposphere and stratosphere. A photometer which uses the sun and the moon as light sources measures the optical depth of atmospheric aerosols throughout the year. The concentration of ozone and aerosols in the atmosphere is determined by means of a so-called LIDAR, a laser-'radar'. In addition, balloon-borne sensors record temperature, humidity and air pressure, as well as ozone-profiles.



The Lidar Laser and Polar Lights above the Dome of the Observatory



Marine biological research, conducted predominantly during the summer, represents the other major research field at the station. Since June 2005, the new [Kings Bay Marine Laboratory](#) has been in use, offering multiple opportunities for all kinds of biological and chemical work in its diverse facilities. Marine biologists, ecologists and oceanographers can be accommodated equally well as marine geologists and glaciologists.

