

Snow in the Andes as clean as Canadian Arctic: study

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Snow in the Andes is as pure as that in Alaska or the Canadian Arctic, the study found

Snow covering the Andes mountains is as clean as the Canadian Arctic, scientists said Friday after hundreds of tests to determine the presence of

black carbon deposits or other pollutants.

Following extensive tests along the vast mountain range, which stretches about 7,000 kilometers (4,300 miles) along the western coast of Latin America, experts said they found less than 14 nanograms of soot per gram of [snow](#).

The results put the snow in the Andes "on the same level as that in Alaska or the Canadian Arctic," said Raul Cordero of Santiago University, who led the study.

The research was part of a project examining the presence of black carbon deposits in frozen regions of the Andes, collectively known as the cryosphere.

"The concentration of black carbon deposits found in the Andean snow implies a reduction in the reflectivity or albedo of the snow of less than 2.0 percent," he said.

Albedo is a measure of light reflectivity which is highest in the frozen areas of the world, and clean snow with high levels of albedo reflects more of the sun's energy than it absorbs.

But black carbon deposits, emitted by burning diesel, wood and fossil fuels, darken the surface of snow and lower its albedo, meaning that it melts faster.

Studying black [carbon](#) concentrations can be important for predicting future melt rates.

Cordero said the study showed that "contamination on its own cannot explain the reduction in [snow cover](#) and retreat of glaciers that has been observed in the Andes in last few decades."

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