

Volcanic Hazards: Gases

Volcanoes release lots of gas into the atmosphere. Some is released during eruptions; some is released between eruptions.



Volcanic gas is mostly steam (H_2O).

Volcanic gas also contains sulfur, fluorine and chlorine. These toxic gases often form acid clouds or acid rain, making the air dangerous to breathe, destroying plant life, and even corroding metal.



These rocks are covered in yellow sulfur, which crystallizes out of the hot gas.

Fumaroles are small vents where gas is released between eruptions. Fumarole gas can be very hot, and very toxic. But with gas masks, scientists can get close enough to take samples.



Erupting volcanoes often smell strongly of sulfur.



CAUTION
VOLCANIC FUMES ARE HAZARDOUS TO YOUR HEALTH AND CAN BE LIFE-THREATENING VISITORS WITH BREATHING AND HEART PROBLEMS, PREGNANT WOMEN AND YOUNG CHILDREN SHOULD AVOID THIS AREA

Volcanoes also release carbon dioxide (CO_2). In 1986, a cloud of CO_2 escaped from a volcanic lake in Africa and flowed downhill, suffocating 1700 people.

The chemistry of volcanic gas is analyzed with special instruments like these. Changes in the gas chemistry can tell us about the magma underneath the volcano.

