

Instrument Resource Sheet

The amount of SiO_2 is quantified by comparing a series of SiO_2 shots with a plume free section of sky.

The instrument will help determine the distribution of volcanic aerosol within the solar radiation scan.

This consists of a series of filters in a cartridge housed in a pump which sucks air through the filters.

A spectrometer is mounted onto a stand and scans (AvoScan) scattered light.

The SO_2 data is calculated from the 1Hz frequency scan.

This is a handheld device which measures solar radiation at 5 wavelengths.

The Avoscan device records sunlight at a 1Hz frequency.

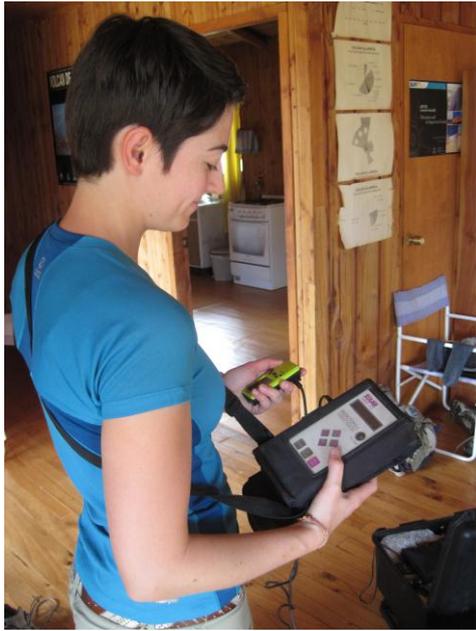
The camera collects sunlight at a wavelength which will absorb SiO_2 .

Different filters pick up different particulates, for example filter 2 picks up acidic gases such as SO_2

This camera uses a bandpass filter to collect photons of scattered sun light.

This instrument measures the thickness of volcanic aerosols in solar radiation across the 5 wavelengths in a plume recorded area with an area out of plume.

Filters are analysed to determine the different amounts of ions in each sample which will reflect the atmospheric content in the sample period.



A



B



C



D

Instrument Resource Sheet Answers

UV Camera

This camera uses a bandpass filter to collect photons of scattered sun light.

The camera collects sunlight at a wavelength which will absorb SiO_2 .

The amount of SiO_2 is quantified by comparing a series of SiO_2 shots with a plume free section of sky.

Sun Photometry

This is a handheld device which measures solar radiation at 5 wavelengths.

This instrument measures the thickness of volcanic aerosols in solar radiation across the 5 wavelengths in a plume recorded area with an area out of plume.

The instrument will help determine the distribution of volcanic aerosol within the solar radiation scan.

Filter Pack

This consists of a series of filters in a cartridge housed in a pump which sucks air through the filters.

Different filters pick up different particulates, for example filter 2 picks up acidic gases such as SO_2

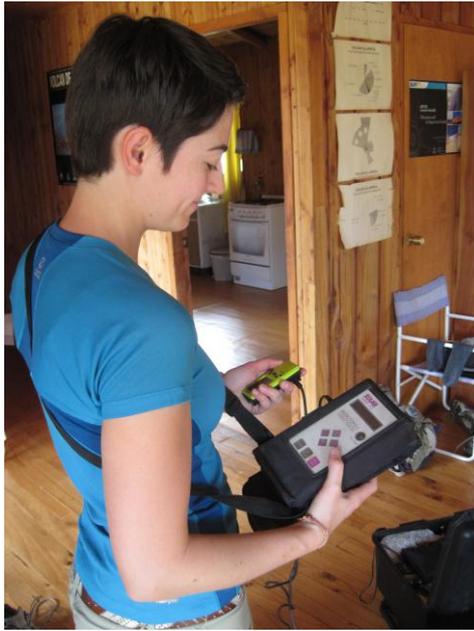
Filters are analysed to determine the different amounts of ions in each sample which will reflect the atmospheric content in the sample period.

UV Spectrometer

A spectrometer is mounted onto a stand and scans (AvoScan) scattered light.

The Avoscan device records sunlight at a 1Hz frequency.

The SO_2 data is calculated from the 1Hz frequency scan.



A Sun Photometer



B UV Camera



C AvoScan UV Spectrometer



D – Filter Pack