


June  
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# **FIRE: Geochemistry of volcanic ash plumes: Implications on air, soil and surface water quality for human health**

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# AL1: Meteorological monitoring

- no results sent from the local monitoring equipment
- Additional Fogo campaign



## **AL2: Database of pathologies related to the eruption and to the volcanic environment**

- Health Regional Director didn't sent data
- National Ethic Board approved the study
- Additional Fogo campaign

# AL3: Air quality monitoring - gases

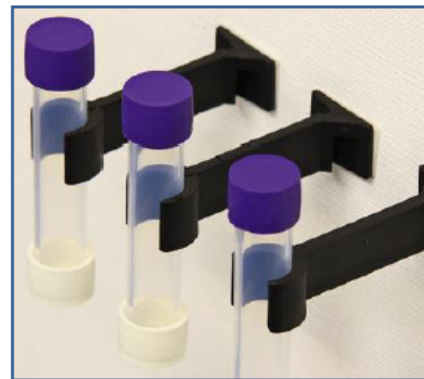
- Diffusive passive sampling tubes for:

⇒ Acid gases

(HF, HCl, HNO<sub>3</sub>, HBr, HPO<sub>4</sub> e H<sub>2</sub>SO<sub>4</sub>)



⇒ SO<sub>2</sub>



⇒ VOCs



# AL4: Dust monitoring

- Settleable particulate matter collected on quartz fibre filters
- Outdoor dusts collected





# AL5: Water quality

- Not possible with the local conditions and transport needs

# AL6: Soil monitoring

- Sampling ongoing



# AL6: Vegetables monitoring

- Sampling ongoing

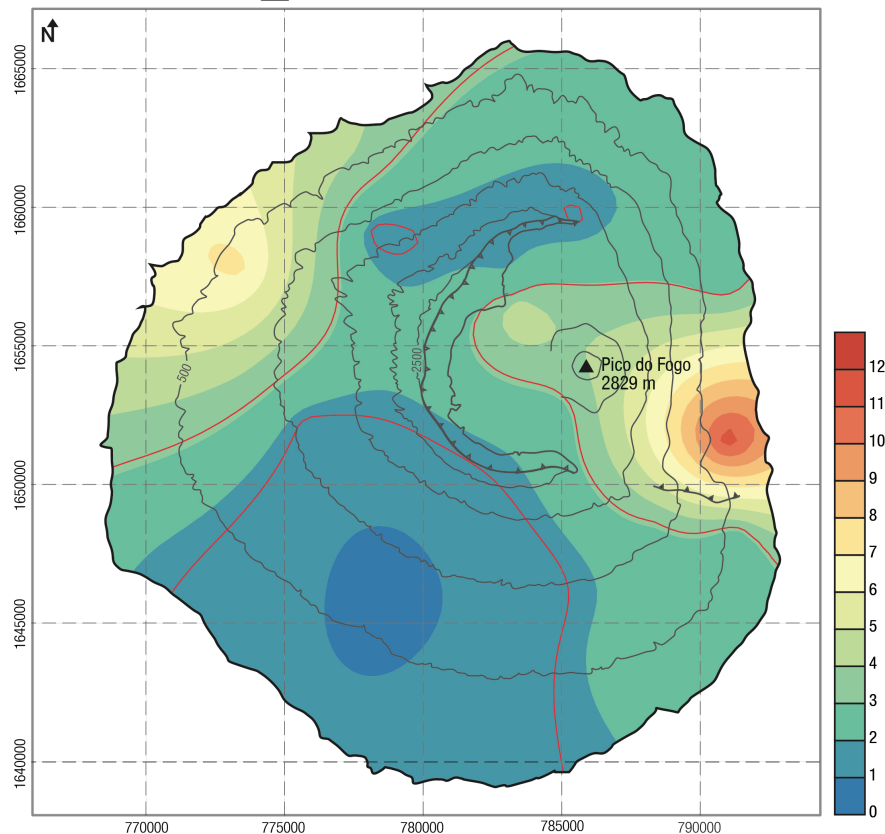




# AL7: Data Analysis

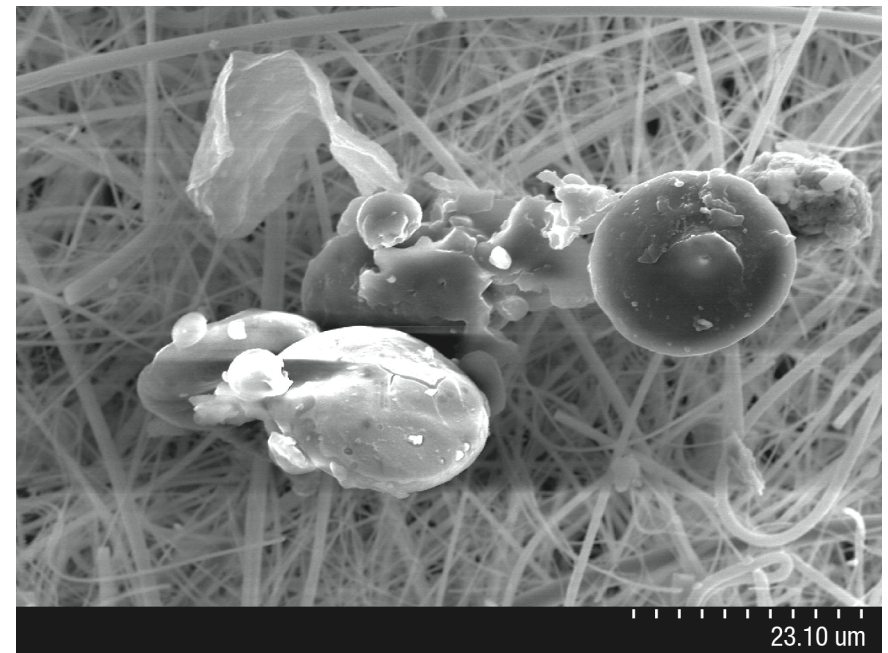
- ongoing

dusts ratio\_Si/Al




- mineral dusts transported by NE winds
- influence of Pico do Fogo and Bordeira

SEM - geogenic / Sahara / anthropogenic



- organic particle with Na cape (right)
- composition typical of pollution (center)
- F-rich unit (down left)



# Challenges/issues encountered/anticipated

- Meteorological monitoring
- Water collection and transport – impossible
- Sulphur samples - used as medicine
- Vegetable samples collected
- Human monitoring – need to contact in person local doctors



# Dissemination

Number of papers:

- in prep. : 3
- submitted: 1 (minor corrections)
- published: 0

Number of communications (national and international):

- planned: 0
- done: 7

Master thesis

- planned: 1
- done: 1



# Plans for coming months

- Field sampling
- Radon gas monitoring – new (exposure to natural radioactive substances)
- Laboratorial analysis
- Dissemination activities (conferences, paper submitted/rev/released)
- Master thesis