ISIS@MACH ITALIA

Science and Technology Facilities Council
ISIS Neutron and Muon Source

Experiment Proposal

Experiment number GP2022010

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Co-investigator	Dr Tiziano Sanvito, EOS Srl, ITALY
Co-investigator	
Co-investigator	
Experiment title	ADA270 – The future in the past
SRF Instrument	**Cold Laboratory**
Access Route	Rapid Access
Science Areas	Environment
Sponsored Grant	Yes
Grant Title	ClimADA - Fondazione Cariplo
Start Date	01/01/2022
Similar Submission?	-
Industrial Links	EOS Effective Optical System

Days requested: 3
Previous GP Number: -
DOI: -
Sponsor: Other
Grant Number: Rif. 2021-4275
Finish Date: 31/12/2023

Non-Technical Abstract

The ADA270 project from a collaboration between the University of Milan Bicocca, the Paul Scherrer Institute (CH), the Adamello Park and the Valcamonica Mountain Community, the Lombardy Region, the Lombardy Environmental Foundation. A group of private entities (VALCAMONICA SERVIZI, EDISON, FERRINO, ACQUA SURGIVA). The activity allowed to drill 225 m of the largest and deepest glacier in Italy and to reach the maximum depth ever reached by an ice drilling in the Alps. More than 300 pieces of core were recovered, all transported to the central deposit of the EuroCold Lab of the University of Milan Bicocca, a laboratory dedicated to the study of ice cores where it is possible to simulate the environmental conditions of the cores under study (both temperature and cleaning). This project allow a strong collaboration with more private companies for develop new instruments (as: EOS classizer SPES). All these measures will allow us to better understand the behavior of the glaciers in the future. The glaciers, and those of the Adamello, due to recent climate changes are in strong retreat both in terms of surface and volume. The strength of the ADA270 International Project arises precisely from its integration into components that have an interest in understanding the environmental evolution that takes place in the Alps. A special protocol for use the ice cores stored in the Eurocold Lab is open for permit to recovery samples and propose different measurements.

Publications -

Instruments	
Access Route	
Science Areas	
Sponsored Grant	
Grant Title	
Start Date	
Similar Submission?	
Industrial Links	

Days Requested:
Previous RB Number:
DOI:
Sponsor:
Grant Number:
Finish Date:

Sample record sheet

Principal contact Professor Barbara Delmonte, University Milano-Bicocca, ITALY
SRF Instrument **Cold Laboratory** **Days Requested:** 3
Special requirements:

SAMPLE

Material	Ice as matrix, mineral dust, inorganic and organic chemical components, greenhouse gases, pollens, black carbons, vegetal rests, micrometeorites	-	-
Formula	-	-	-
Forms	Solid		
Volume	50 cc		
Weight	40 g		
Container or substrate	plasticbags or glassware	-	-
Storage Requirements	Frozen less than -30°C	-	-

SAMPLE ENVIROMENT

Temperature Range	253.15 - 223.15 K	-	-
Pressure Range	- mbar	-	-
Magnetic field range	- T	-	-
Standard equipment	-	-	-
Special equipment	-	-	-

SAFETY

Prep lab needed	Yes	-	-
Sample Prep Hazards	the samples must be maintained between -20°C to -50°C	-	-
Special equip. reqs	Clean rooms	-	-
Sensitivity to air	Yes	-	-
Sensitivity to vapour	Yes	-	-
Experiment Hazards	the researchers will work between -20°C to -50°C	-	-
Equipment Hazards	the instruments must be maintained between -20°C to -50°C	-	-
Biological hazards	-	-	-
Radioactive Hazards	-	-	-
Additional Hazards	-	-	-
Additional Details	the instruments must be maintained between -20°C to -50°C	-	-
Sample will be	Returned to user by instrument scientist (when inactive)	-	-