

## **The Moroccan Atmospheric Research Station (AMV)**

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### **Abstract**

In-situ atmospheric chemical composition measurements is an important component for the understanding and characterization of air composition at different latitudes and altitudes worldwide. Africa, as a continent, is lacking long-term in-situ measurements with a very limited number of stations that can provide accurate and continuous atmospheric parameters such as gas pollutants concentrations and aerosol loading as well as their chemical composition. The Moroccan Atmospheric Research Station has been set up within the frame of a project supported by Marie Skłodowska-Curie Actions (MSCA) Research and Innovation Staff Exchange (RISE) H2020-MSCA-RISE-2015. It is located in the high peaks of the Michlifén in the Middle Atlas Mountains - Morocco, about 19 km south from downtown of Ifrane city (33.4018N; 5.10489E; 2076m). It is in operation since July 2017. The station is equipped with a Picarro instrument to measure continuously CO<sub>2</sub> and CH<sub>4</sub>. This equipment has been provided and is maintained by LSCE-CNRS. A photometer Cimel, provided by University of Valladolid has been recently installed at the station for the retrieval of essential physico-optical parameters: Aerosol Optical Depth (AOD), Volume Size Distribution (VSD), complex refractive index (n), shape factor, water vapor content. In addition, a Digital High Volume Sampler has been used occasionally to sample particle. The collected filters are sent to TROPOS-Leipzig for chemical characterization. The station is also equipped with a meteorological station and NO<sub>x</sub>, SO<sub>2</sub>, and O<sub>3</sub> analysers deployed by ICARE-CNRS. The present poster will describe the station, its achievements after four years of measurements and its near future developments.

### **Early Career Scientist**

NO, I am not an early career scientist.

### **IGAC Activities**

MAP-AQ: Monitoring, Analysis and Prediction of Air Quality, TOAR: Tropospheric Ozone Assessment Report

### **IGAC Regional Working Groups**

ANGA: African Group on Atmospheric Sciences