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AN ELECTRONIC NOSE NETWORK FOR THE AIR QUALITY MONITORING OF THE INTERNATIONAL SPACE STATION (ISS)

Abstract

In the long term mission the atmosphere of manned spacecraft needs to be continuously monitored in order to preserve the astronauts condition. A prompt reaction by the crew to the production of harmful gaseous contaminants, or failures of the air ventilation system is critical. To this regard, the need for air quality monitoring system able to control the spacecraft becomes fundamental. In this work we will show the results of the IENOS (Italian Electronic NOse for Space Exploration) experiment performed during the DAMA mission. In this experiment a network of electronic noses has been placed on the International Space Station and used to monitor the air quality of the station.