

PM2.5 aerosols collected in the Antarctic Peninsula with a solar powered sampler during austral summer periods

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Collection of PM2.5 particles was carried out in Antarctica in the summer periods of years 2006 and 2007 using solar panels to operate the sampling unit. The unit was installed 2.5 km from the B. O'Higgins Chilean base to avoid possible air contamination from oil or gas burning electric power stations. The aerosols were analyzed by XRF identifying twenty elements between Na and Sr. Results showed the presence of elements of typical Earth crust and seawater origins. In addition, considerable amounts of non-sea sulfur together with traces of Pb and Se from probable long distant anthropogenic activities were observed. © 2009 Elsevier Ltd. All rights reserved.