
Dataset name: iCUPE Dataset (DS) from iCUPE Collaborators

Long-term monitoring of gaseous elementary mercury in background air at the polar station Amderma (Russian Arctic)

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The produced dataset (in MS Excel format) contains time-series of concentrations of gaseous elementary mercury (GEM, thereafter – mercury) in the background air collected at the Amderma polar station near the Amderma settlement of the Russian Arctic (69,72oN; 61,62oE; Yugor Peninsula, Russia) from 24th June 2001 until 13th February 2013. The concentrations for mercury are given in ng/m³. Concentrations were measured in the air at every 30 minute interval using Tekran-2537A instrument. After checking quality of recorded values of the mercury concentration, the average of two consecutive measurements in two channels (average 1 hour measurements) are calculated.

Data (as time-series) are grouped into three blocks covering different time periods and adjacent locations (Figure 1). First block covers period from 24th June 2001 to 13th February 2004 (point №1, when the analyzer was located at a distance of about 9 km from the coastline of the Kara Sea). Second block covers period from 3th April 2005 to 12th June 2010 (point №2, when the analyzer was placed at 2.5 km from the coast). Third block covers period from 15th June 2010 to 10th October 2013 (point №3, the analyzer was set up at a distance of 200 m from the coastline of the sea).

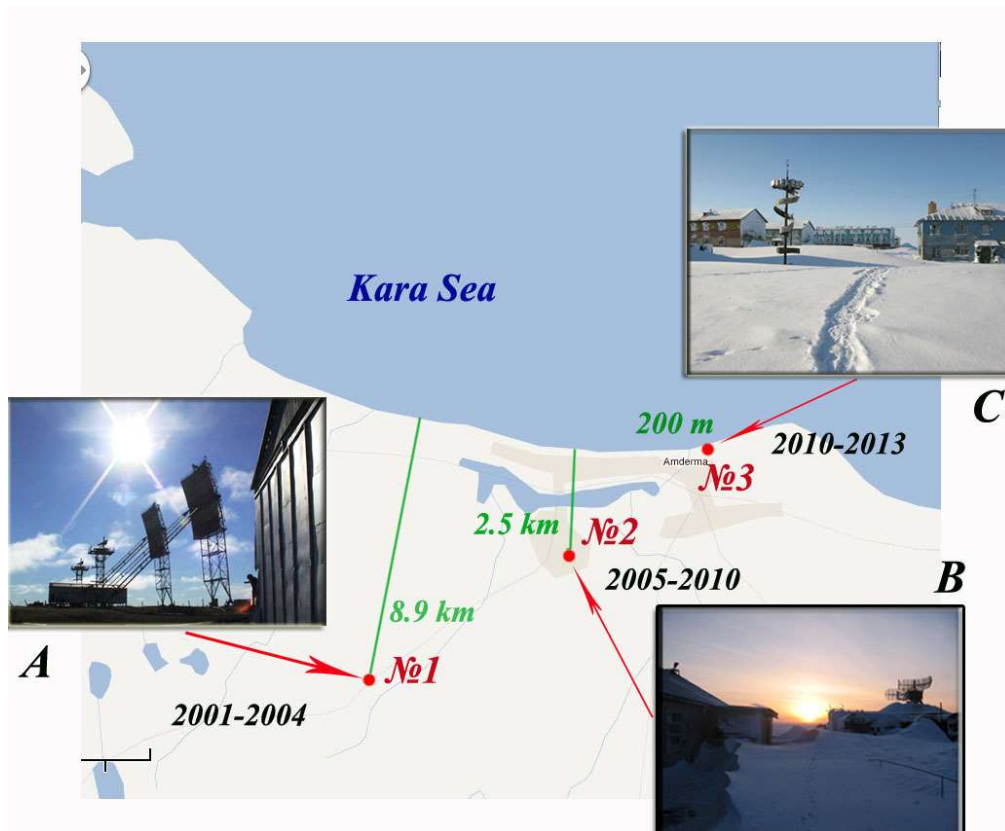


Figure 1: Positioning of the Tekran analyser for atmospheric mercury measurements.