



## Measurements of nitrogen dioxide in Greenland using Palmes diffusion tubes.

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Abstract: Measurements of nitrogen dioxide using the Palmes diffusion tubes in Uummanaq, Aasiaat, and Nuuk. all located along the west-coast of Greenland, have demonstrated that the levels of pollution at the most heavily impacted sites are comparable to levels in much larger towns in Denmark. The highest concentrations were, in general, observed near sites influenced by car traffic (peak concentrations of up to 16 ppbv), medium concentrations were observed in the residential areas (2-6 ppbv), and very low levels were found at the background locations in the town outskirts (1-2 ppbv). Observations of nitrogen dioxide concentrations less than 0.1 ppbv at a remote site, Akia, 25 km from Nuuk, indicate that, compared to local sources, long-range transport of nitrogen dioxide is not important in western Greenland.

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