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A new sorbent tube for atmospheric NO_x determination by active sampling

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Dedicated to the memory of Carmela Spatafora

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Abstract

In this paper we used hydrated mayenite as reactive substrate for NO_x active sampling in the air, which is novel. The performance of the mayenite-based sorbent for the NO_x tubes was evaluated in two different monitoring surveys (autumn 2015 and winter 2016), characterized by different environmental conditions. Sorbent tubes filled with mayenite were exposed simultaneously to triethanolamine (TEA)-based sorbent tubes and to a chemiluminescence detector, as reference. The