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2.0: A Next Generation Aerosol Sampler/Analyser

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Lessons learned from 20 years of operation of the International Monitoring System for aerosol sampler/analysers have pointed the way to a new generation of aerosol monitoring equipment. Using new technology and following the sampling/analysis scheme developed for next generation xenon systems, new aerosol equipment will be more resilient in power failures, will give much better location in analysis, and perform better for very low signal levels and very high signal levels. Electrostatic collection uses less power per cubic meter sampled, and electrostatic collection efficiency could be reduced remotely for extremely high signal levels. A pair of gamma radiation detectors will deliver the required minimum detectable concentrations, but in shorter sample times (e.g. 8 h vs 24h), and a new method for packaging samples could give better field to laboratory agreement. Progress on new technology will be presented.

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Promotional text

We report progress on a next generation aerosol system using electrostatic sampling and dual gamma spectrometer measurement innovations. This should improve resilience to power and equipment failures, give fast access to early data, and meet user needs for high level samples.

Oral preference format

in-person

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