



Virtual Cyclone Sampler

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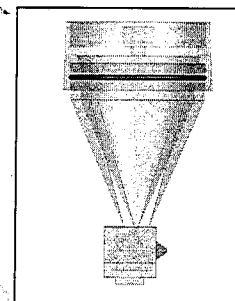
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Experience:

1. <https://goo.gl/HVBxzi>
2. <https://goo.gl/3ZrSqm>

Market Needs:

Size-selective sampler is an indispensable tool for air quality monitoring and personal exposure assessment. Due to the loading problem of conventional separators, the sampling results would be underestimated. The new virtual cyclone samplers will eliminate the artifact due to aerosol loading occurred in conventional samplers.



Our Technology:

In this work, the configurations of the virtual cyclones were studied to eliminate the tailing phenomenon of the separation efficiency curve reported two decades ago. The new virtual cyclones successfully demonstrate accurate and constant measurement of the atmospheric dust component, and thus the extent of health hazards. The final design of the virtual cyclone has an inlet length of 20 mm, in order to make the whole sampling train miniaturized and handy to use in the field. The sampling flow of the new virtual cyclone can be increased from 5.5 to 21.5 L/min, as the inlet and outlet height increased from 0.35 to 1.2 mm.

Strength:

These samplers have perfect match to the international ISO respirable convention, and show constant operation, i.e., no aerosol loading effect, because aerosol deposition was spread out to the whole recirculation chamber.

Competing Products:

Conventional cyclones, impactors

Intellectual Properties:

Our research team has 20 years of research experience and has a deep understanding of the field of aerosol technology.

Contact (do not need to fill out):

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