In Situ Measurements of NO, NO$_2$, NO$_y$, O$_3$ from the DC-8

Four sample flows, each employing the chemiluminescent reaction:

$$\text{NO} + \text{O}_3 \rightarrow \text{NO}_2^* + \text{O}_2$$

NCAR 4-Channel Chemiluminescence Instrument

- For NO, reagent O$_3$ is added to the flow of ambient air.
- Photons are counted.
- For NO$_2$ and NO$_y$, first convert to NO.
- For O$_3$, reagent NO is added to flow of ambient air.

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