

ACOM Seminar

Open ambient air quality data access through
OpenAQ and indoor-outdoor chemical relationships
from household cleaning activities

Colleen Rosales

OpenAQ

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Link: <https://operations.ucar.edu/live-acom>

ABSTRACT

In the first part of this talk, indoor radical chemistry initiated by cleaning products such as bleach and pine-scented products, leading to secondary particle formation, is explored. While sophisticated instrumentation was used to measure the primary emissions, radicals, intermediates, and ultrafine particles, measurements on criteria pollutants such as ambient ozone and NO_x, which usually come from the outdoors and make their way indoors, are essential to the mechanisms and are also important inputs to a chemically detailed model, the results of which are compared side by side to the measurements. The model is also explored to figure out best practices with respect to ozone levels and air exchange rates. During the second part of the talk, open data availability of criteria pollutants such as ozone and NO_x, as well as other air pollutants, via the online platform OpenAQ will be discussed. OpenAQ is the largest open-source online platform for real-time and historical air quality data worldwide, with over 44 billion measurements in 53,000 locations aggregated in one platform. Different use cases and ways to access that data in OpenAQ (such as the *Explorer* and API) will also be discussed.