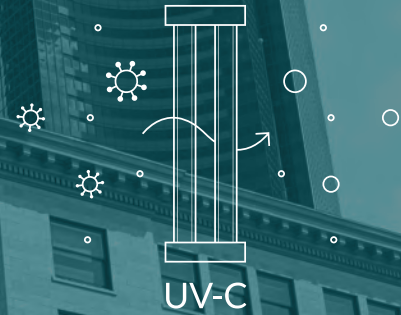


Germicidal UV-C Efficacy Field Measurement & Verification Offerings



Overview

Developed with support from the National Institutes of Health (NIH), SafeTraces' verIDART platform leverages patented DNA-tagged aerosol tracers, which safely simulate the emission, mobility, and exposure to infectious aerosols. DNA tracers serve as pathogen surrogates and challenge agents for measurement and verification of pathogen removal and inactivation mechanisms in support of ASHRAE Standard 241 (Control of Infectious Aerosols) and CDC Ventilation in Buildings guidelines.

UV-Sensitive DNA Tracers

SafeTraces UV-sensitive tracers provide highly accurate quantitative measurement and verification of the germicidal efficacy of UV-C fixtures in real world settings:

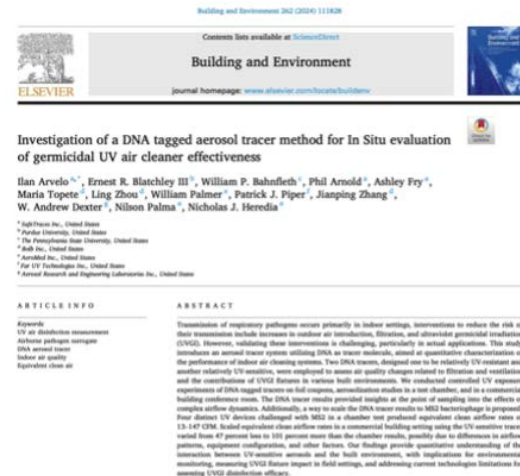
- 7 log 10 measurement bandwidth
- FDA Generally Recognized as Safe (GRAS) DNA tags
- Test results can be dose-scaled to any pathogen of concern and integrated into quantitative microbial risk assessment
- Commission UV-C fixtures to installed performance at code minimum HVAC ventilation rates to maximize energy savings
- Optimize in situ UV-C fixture performance based on room configuration, air distribution, and other local variables

Real World Measurement & Verification

SafeTraces UV-sensitive DNA tracers provide valuable measurement and verification in a variety of real world settings:

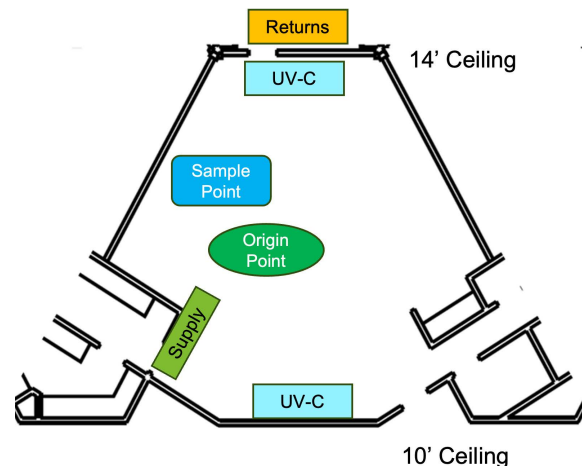
- Healthcare
- Senior living
- Schools
- Workplaces
- Critical infrastructure

SafeTraces Tech Backed by Peer-Reviewed Research



Ilan Arvelo (SafeTraces), et al., *Building and Environment*, Vol. 262, 15 August 2024, "Investigation of a DNA tagged aerosol tracer for In Situ evaluation of germicidal UV air cleaner effectiveness"

Measurement & Verification in School Classrooms



UV Off eACH	UV On eACH	UV Off Occupancy	UV On Occupancy
4.79	8.02	18	29

Field measurement and verification demonstrated a 3.23 eACH benefit (MS2 dose-scaled) provided by two UV-C fixtures in a school classroom. Test results supported ASHRAE Standard 241 by quantifying appropriate occupancy levels.