

## **How Low Can You Go? Exploring Lowest Detection Limits of Respirable Crystalline Silica**

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Millions of workers in the United States are exposed to harmful respirable silica dust every year. As a measure to further protect workers, OSHA recently reduced the permissible exposure limit (PEL) for the industrial workforce. Workspaces from many different industries will need to be recertified and monitored to ensure compliance with this new rule.

The amount of crystalline silica in a volume of air can be quantified by following the analytical method described in NIOSH 7500 in which X-Ray diffraction is finally used to detect and quantify different phases of crystalline silica that are considered hazardous.

In this poster, we use a Bruker D8 ENDEAVOR equipped with the unique energy discriminating LYNXEYE XE-T to achieve detection limits for respirable silica never before seen in a laboratory instrument.