

Duke develops new UV measurement tool

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Researchers at Duke University's Pratt School of Engineering have developed a new way to measure microbes' exposure to ultraviolet light.

The researchers say their "microsphere dosimeter" tool could bolster efforts to use UV light to improve the quality and safety of U.S. tap water.

The novel technique developed by Karl Linden and colleagues is believed to be the first direct test of how much UV light microorganisms in fluids have been exposed to -- a critical step in validating the use of UV light treatment for preventing the spread of infection through drinking water.

Linden said the new findings offer many fundamental and practical advances for UV reactor evaluation and testing, as well as helping validate and improve the accuracy of mathematical models for estimating the efficiency of water treatment with UV.

The technique is described in the Nov. 15 issue of Environmental Science and Technology.

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