

# **Charlie Sharpless**

**Professor of Chemistry at University of Mary  
Washington**

Fredericksburg, VA, US

Dr. Sharpless specializes in environmental science.

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## **Biography**

Which environmental processes control oil degradation and the fate of other water contaminants? That's a question to ask Charles Sharpless, professor of chemistry at the University of Mary Washington.

Dr. Sharpless teamed up with scientists from the Woods Hole Oceanographic Institution and University of California in the summer of 2015 for a research cruise that aimed to collect oil samples in the Gulf of Mexico. The results of the cruise will clarify the role of solar degradation in the fate of oil in marine systems.

The whole project focuses on gaining a better understanding of what environmental processes control oil weathering rates, the aging of oil from crude to tar in the environment.

Dr. Sharpless' research interests include photochemistry in natural and engineered systems, the chemistry of humic substances, environmental analysis, and fate and remediation of anthropogenic pollutants, particularly pharmaceuticals and other organic contaminants in streams and rivers, and spilled oil and biofuels in marine ecosystems.

His research has been supported by grants from the National Science Foundation, the U.S. Environmental Protection Agency, Research Corporation, and the Virginia Academy of Sciences. His work has been published in several peer-reviewed publications including Environmental Science Technology, Aquatic Sciences, Water Research, and the Journal of Environmental Engineering and Science.

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## **Industry Expertise**

Research, Education/Learning, Training and Development

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## **Areas of Expertise**

Photochemistry in Natural and Engineered Systems, Chemistry of Humic Substances, Environmental Analysis, Environmental Science, Oil Spills, Drinking Water Treatment, Wastewater Treatment, Water Chemistry

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## **Education**

**Duke University**

Ph.D. Post-Graduate Studies

**The Johns Hopkins University**

B.A. Undergraduate Studies

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