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Showcasing research from the Richards, Trewyn & Vyas Research Groups, School of Chemistry, Colorado School of Mines, United States.

Light-driven interfaces for polyfluoroalkyl substances (PFAS) detection and destruction

The Richards, Trewyn, and Vyas research groups at the Colorado School of Mines are developing innovative methods for per- and polyfluoroalkyl substance (PFAS) remediation. By integrating materials science, organic chemistry, and computational tools, they aim to create the next generation of PFAS degradation materials. This article highlights recent advancements in light-driven technologies for PFAS detection and destruction. New developments in photocatalysis are improving the efficiency of degrading these persistent chemicals, while plasmonic materials are proving effective for detecting PFAS, especially as detection targets become lower and harder to measure. Key features that contribute to the success of these materials are also discussed to guide future developments.

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See Brian G. Trewyn, Shubham Vyas, Ryan M. Richards *et al.*, *RSC Appl. Interfaces*, 2024, **1**, 833.





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