

**Unmet Needs for Mercury Capture from Coal-Derived Flue Gas**

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Mercury is a neurotoxin, and can accumulate in the food chain. The United States Environmental Protection Agency recently issued the Clean Air Mercury Rule (currently under review), regulating the mercury emissions from coal-utilizing facilities such as coal-burning power plants. The capture of mercury by activated carbons is the most well developed technology for flue gas application.

Many technologies are being developed for the control of mercury emissions from coal-fired power plants. These methods employ sorbents, catalysts, scrubber liquors, flue gas or coal additives, combustion modification, barrier discharges, and ultraviolet radiation for the removal of mercury from flue gas streams. An overview of the technologies for mercury capture from coal-derived flue gas will be provided. The unmet needs for mercury control will be highlighted. These needs include improved sorbent-flue gas contact, concrete-friendly activated carbons, poison-resistant catalysts and sorbents, continuous measurement of mercury, scrubber additives, and additional byproducts research.