National Renewable Energy Laboratory
Innovation for Our Energy Future

Impact of Fuel Metal Impurities on Diesel Exhaust Catalysts

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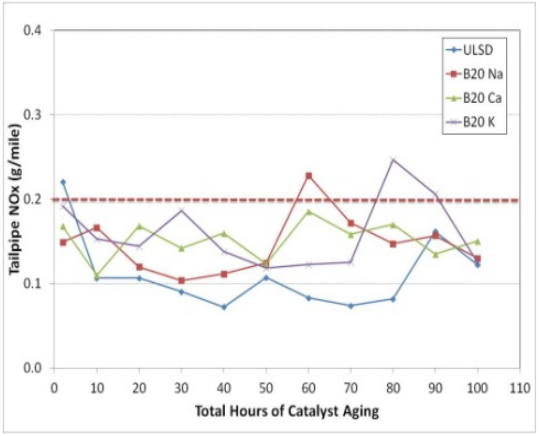
Emissions Testing and Post Mortem Analysis of Aged Catalysts

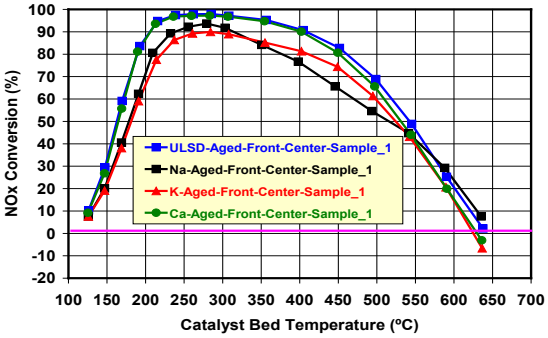
Motivation

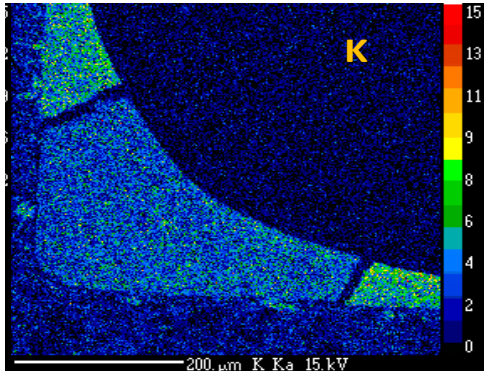
- Concern about the impact of fuel impurities (Na, K and Ca) impact on durability of diesel exhaust catalysts



Approach

- Aged catalysts from a Ford F250 with biodiesel fuel containing Na, K and Ca.
- Emissions measurement conducted after 150,000 miles of aging
- Bench scale reactor experiments investigate performance of DOC and SCR
- Material characterization of DOC, SCR and DPF investigate metal exposure





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