Imaging of Diesel Particulate Filters using a High-Flux Neutron Source

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P-14
October 4, 2011

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U.S. DEPARTMENT OF ENERGY

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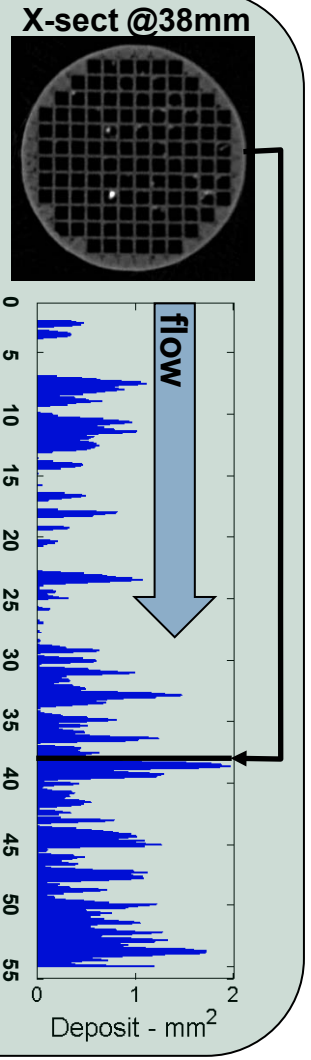
Detailed images of deposits identified inside automotive DPFs using neutrons

- The development and implementation of non-destructive, non-invasive neutron imaging techniques will improve the understanding of advanced vehicle technologies
  - Diesel Particulate Filter (DPF) research to improve understanding with goals of improved fuel efficiency in application
- Tomographic approach employed to analyze cross sections of research-sized DPFs
- Combined image enhancement employed to quantify location of localized high contrast particulate

Localized particulate quantified as function of length along DPF



Washcoat identified in the front quarter of a catalyzed DPF on the exit channels.