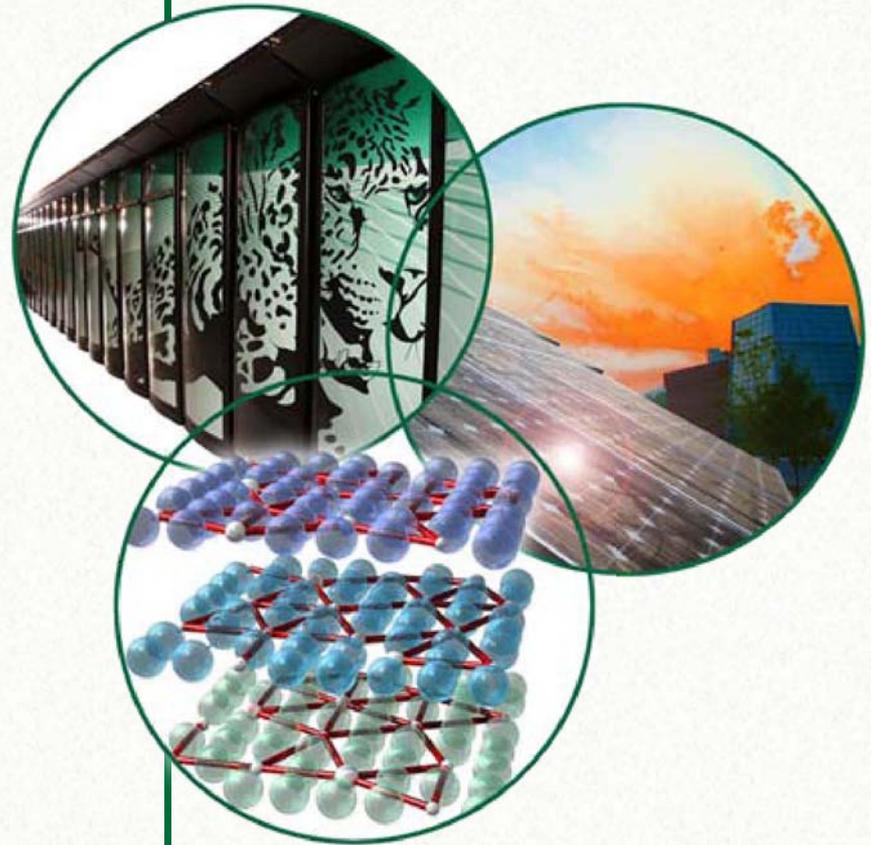


Neutron Imaging of Diesel Particulate Filters Poster 3

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Spallation Neutron Source
Oak Ridge National Laboratory

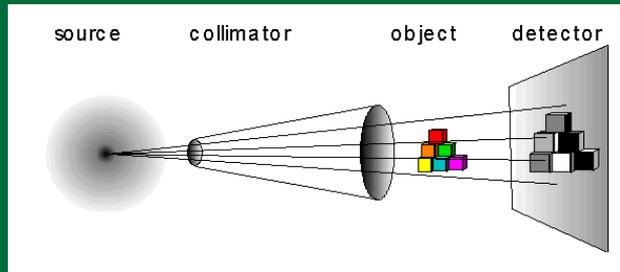
Andrea Strzelec, C. Stuart Daw
Fuels, Engines and Emissions Research
Oak Ridge National Laboratory

David E. Foster, Christopher J. Rutland
Engine Research Center
University of Wisconsin-Madison



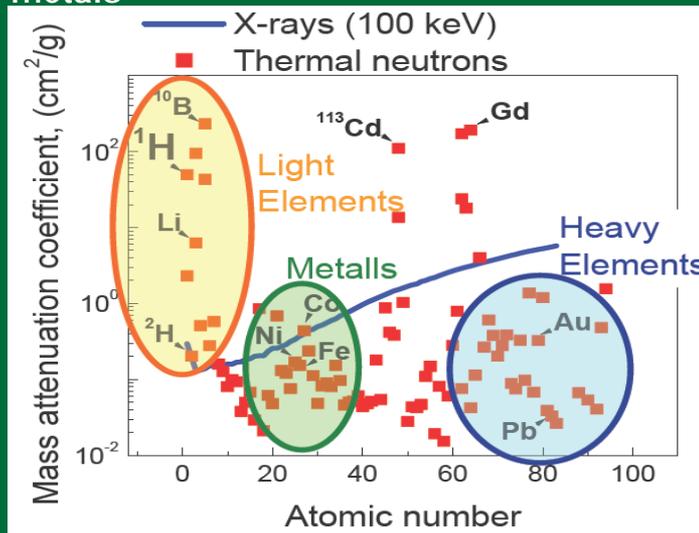
What is Neutron Imaging?

Non-invasive, non-destructive technique based on attenuation of the neutron beam.



Neutrons interact with nuclei and their scattering power does not vary in any regular way with atomic number.

Neutrons can see through thick materials such as metals



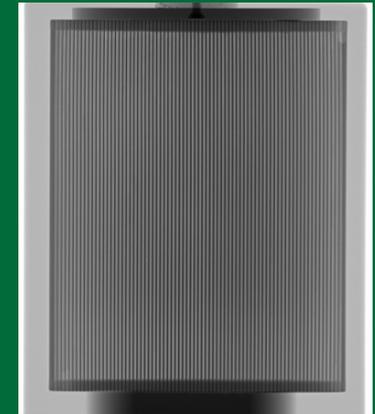
Courtesy of E. Lehmann and N. Kardjilov

NI of Cordierite Particulate Filters

Photograph and Neutron Radiograph

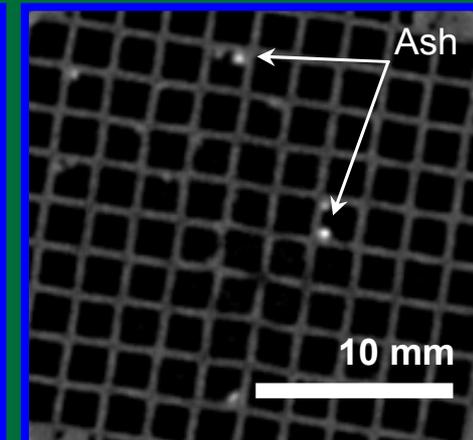
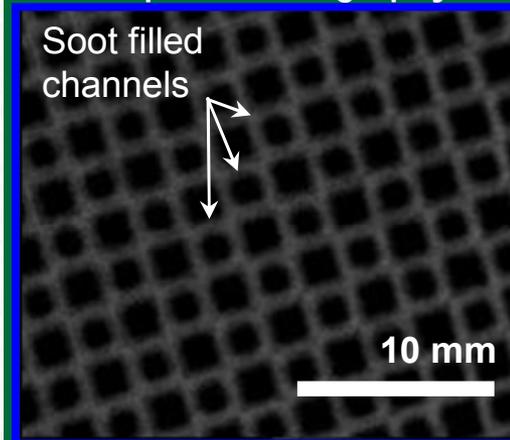


5.66" x 6" Cordierite DPF



Neutron Data

Soot and Ash loading in DPFs visible with neutron computed tomography



P3 poster