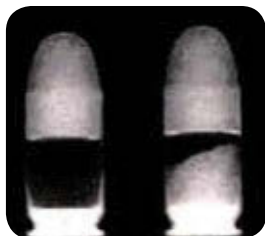


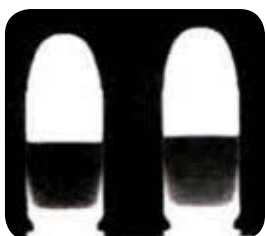
Neutron Radiography

High Throughput Radiography Without a Reactor

Neutron radiography and tomography are proven techniques for the nondestructive testing of manufactured components in the aerospace, energy, and defense sectors. Like X-rays, when neutrons pass through an object, they provide information about the internal structure of that object. Neutrons are able to pass easily through high density metals and provide detailed information about internal, low density materials. This property is extremely important for a number of components that require nondestructive evaluation including engine turbine blades, munitions, spacecraft components, and composite materials.



Neutron Image
Ammunition



X-RAY Image
Ammunition



Neutron Image
Ammunition



Camera Image
Ammunition

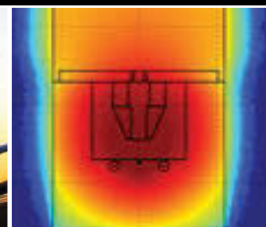
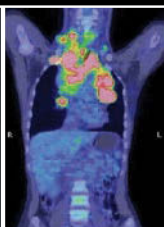
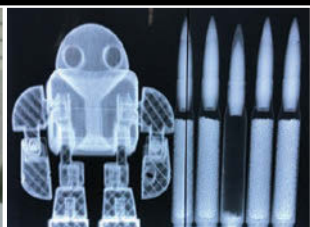
Benefits:

- Neutron radiography allows for investigation of low density material attributes of composites and other materials where other NDT methods do not suffice.
- Phoenix's neutron source is the first compact, electronic source to provide the strength necessary for neutron imaging.
- The source offers similar throughput and image quality to neutron radiography performed at user facilities with greater accessibility, an easier regulatory environment, and at a lower cost.



PHOENIX NUCLEAR LABS

BUILDING THE WORLD'S STRONGEST COMMERCIAL NEUTRON GENERATORS



Phoenix Nuclear Labs delivers the world's most powerful commercial neutron generators – PNL has delivered systems with neutron yields up to 3×10^{11} DD n/s. PNL's solution utilizes a microwave ion source and a deuterium, tritium, or mixed species target. Targets are available in either self-loading solid or gaseous form, providing significantly increased neutron yields and lifetimes of up to 10 years for both the target and the source.

Capabilities formerly available only with a nuclear reactor or a radioactive source are now possible in-house with a PNL neutron generator. At PNL, we are providing nuclear technology for the betterment of humanity.



Neutron Generator