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Resilience of Double Tube Hybrid Neutron Detectors TREVOR JEX, Brigham Young University, NUCLEAR GROUP BYU TEAM — Both cadmium and lithium-glass are excellent neutron-detecting materials. However, the combination of these two materials in one detector has the possibility of even further enhancing the efficiency and effectiveness of a single detector. Such advances present an opportunity to eventually increase the effectiveness of neutron detectors at US borders detecting illicit nuclear material. Though the research is still in infancy and requires further substantiation, the possibilities of increased detection efficiency as well as the knowledge gained about detection geometry and data analysis far outweigh any challenges.

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