



Government Agency Perspectives: NASA

Lattice Confinement Fusion

Advanced Research Projects Agency – Energy (ARPA–E) Workshop on
Low-Energy Nuclear Reactions (LENR)

October 21–22, 2021

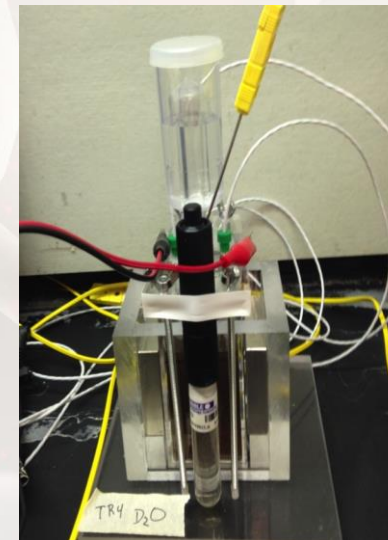
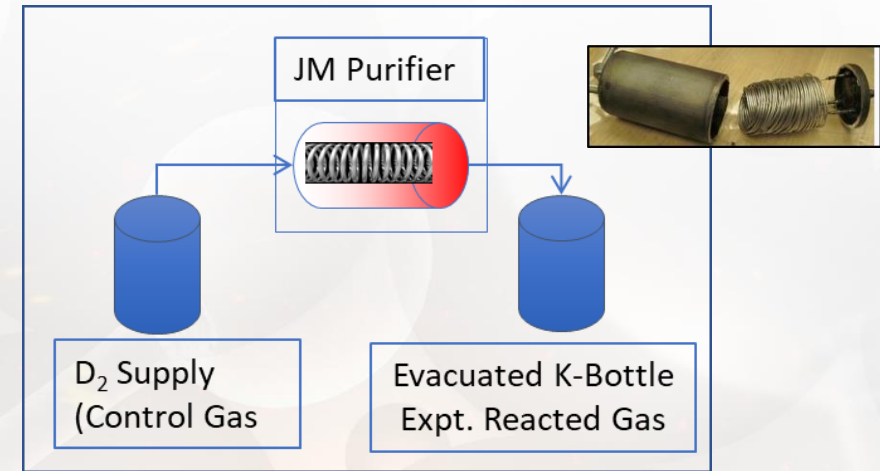
Mr. Leonard Dudzinski

Chief Technologist, Planetary Science Division, NASA

NASA Summary of LENR Activities



- LENR Research Activities Span Wide Range of LENR Triggering Methods
 - All activities involve lattice of atoms, type of trigger, and high concentration of loaded deuterium
- Gas Cycling
 - Palladium-Silver (PdAg) lattice
 - Cycling of D_2 gas triggers reactions in the lattice
 - Produced anomalous heat events
- Electrolytic Wet Cells
 - Platinum lattice in heavy water (D_2O)
 - Application of electric current triggers reactions
 - Produced excess heat



NASA Summary of LENR Activities



- LENR Research Activities Span Wide Range of LENR Triggering Methods
 - All activities involve lattice of atoms, type of trigger, and high concentration of loaded deuterium
- Electron and X-ray Beam Irradiation
 - Titanium lattice loaded with deuterium (TiD_2)
 - Electron and x-ray beam triggers reactions
 - Evidence of neutrons and tritium produced
- Plasma Reactor
 - Nickel foam disks and silicon spacers stack
 - Plasma and gas cycling triggers reactions
 - Produced excess thermal power, helium, and tritium
- Gamma Ray Irradiation
 - Erbium lattice loaded with deuterium
 - Gamma beam triggers d-d fusion
 - Produced evidence of fusion neutrons

