



## Duplex Accident Tolerant Coating For Nuclear Fuel Rods

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### The Invention

A method is described for forming duplex layers including an interlayer and a corrosion resistant boundary layer on a nuclear fuel rod cladding tube for use in a water cooled nuclear reactor. The method includes forming, by thermal deposition or physical vapor deposition, on the exterior of a substrate, an inner interlayer with Mo, Ta, W or Nb or other particles, and forming, by thermal deposition or physical vapor deposition, on the interlayer, an outer corrosion resistant layer with particles selected from the group consisting of Cr, a Cr alloy, and combinations thereof. The interlayer prevents eutectic formation between the corrosion resistant layer and the substrate.

### Additional Information

#### For More Information About the Inventors

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#### Tech Fields

- [Materials & Chemicals : Composites](#)

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