USIC

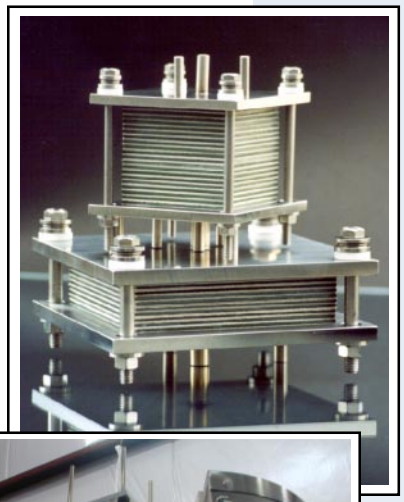
United States Industry Coalition, Inc.

IPP

Initiatives for Proliferation Prevention

National Nuclear Security Administration

Metal Interconnect Materials for Solid Oxide Fuel Cells (SOFC)



- Bipolar plates in planar SOFC stacks separate air and fuel streams, electrically connect adjacent cells
  - Metallic separator plates are desirable for reduced cost, simpler pressure seal design
  - Metal separators must be oxidation resistant and/or oxide scale must be thin and electronically conducting
- Russian experts in alloy design/ development will examine 2 new metal interconnect coatings:
  - Application of spinel to stainless steel
  - Use of custom-made homogenous materials
- Project will cover initial screens, pilot lot manufacturing runs
- Successful post-project commercial stack tests will help meet growing consumer demand for next generation fuel cells

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