

SOFC technology developed in Australia

Ceramic Fuel Cells Ltd. (CFCL), based in Victoria, Australia, has developed and patented technology for solid oxide fuel cell (SOFC). SOFC comprises a thin sheet of zirconia-based electrolyte, which is coated on both sides with porous electrode materials. When fuel is passed over one side of the sheet and air over the other, a chemical reaction occurs, which involves a flow of negatively charged oxygen ions across this sheet. This creates an exploitable electric current which continues to flow as long as the fuel and air are available.

SOFC is the most efficient fuel cell technology which can reduce both energy costs and greenhouse gas emissions. These cells also produce high-grade heat for cogeneration applications. Some of the benefits offered by CFCL's products include:

- Customer control over generation to ensure power integrity;
- Easy to operate;
- Reliability;
- High-grade waste heat, for heating and cooling;
- High-efficiency operation;
- High-quality power availability;
- Quiet and low-emission operation; and
- Easily connected modular units, to facilitate incremental expansion if required.

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