

### R&D Status of SOFC in KIER

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KIER has a patent for the proprietary design of anode-supported tubular SOFC. Based on this design, we are now developing two types of anode supported tubular SOFC and flat-tubular type SOFC. The present foci of our research group are the improvement of single cell performance which involves the enhancement of the materials properties, current collecting method and cell preparation process. In addition, we are concentrating on the fabrication of compact stack module by modifying a design of fuel & air chamber and enhancing the performance of unit cell.

Based on this proprietary anode-supported tubular SOFC stack techniques, we have developed a brazed tubular cell, 1kW class anode-supported flat tubular SOFC stack, and 1kW class anode-supported tubular SOFC stack for APU application.

In addition, we are planning to perform a research on the improvement of long-term stability, stack compactness, and will fabricate and characterize a 2kW class anode-supported flat tubular SOFC stack.