

Dual Membrane Fuel Cell: From powder to the Testing of a Two-Cells Short-Stack

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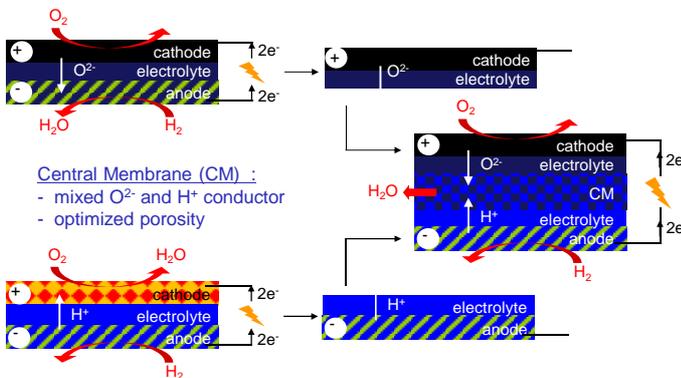
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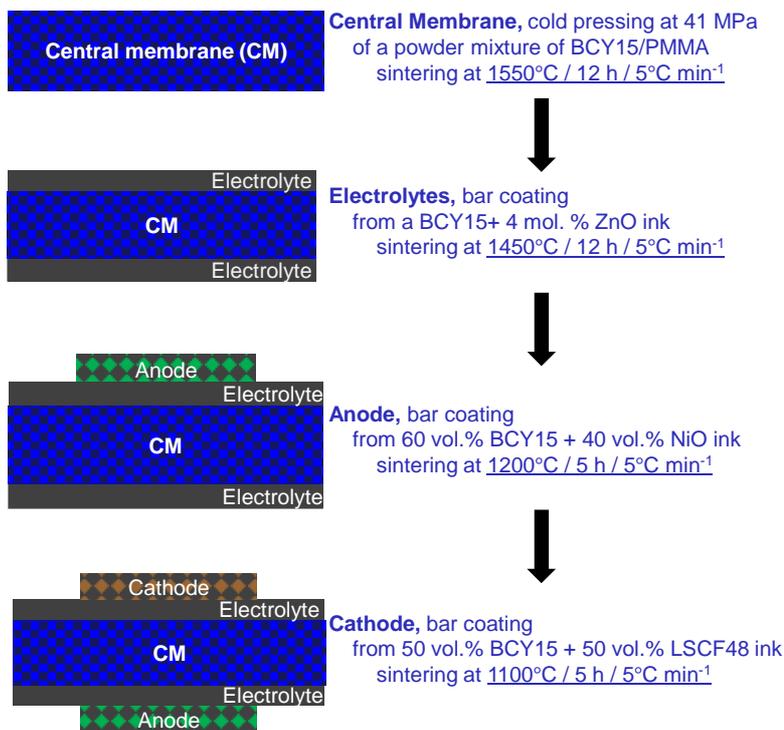
Objectives

- IDEAL-Cell : a breakthrough SOFC technology, efficient, reversible and sustainable
- Fabrication of IDEAL-Cell by standard processes (cold pressing, tape casting, ...) easily transferable to an industrial partner

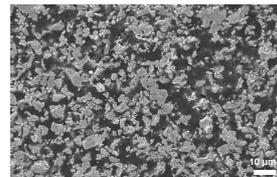
IDEAL-Cell concept



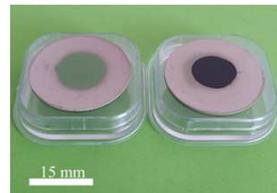
Central membrane supported IDEAL-Cell fabrication



Central membrane supported IDEAL-Cell characteristics

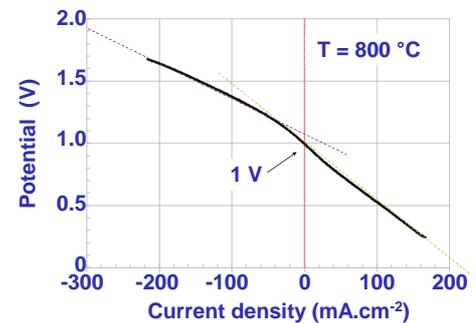


- Around 600 μm thick
- Porosity of 40 vol.%
- Pore size around 5 to 10 μm

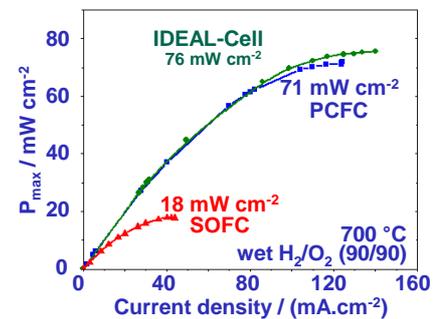


- Electrolytes 20 μm thick
- Anode 50 μm thick
- Cathode 50 μm thick
- Anode porosity of 25 vol.%
- Cathode porosity of 25 vol.%

Electrochemical testing



- Good reversibility : no catalyst or water vapor pressure is required



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