

## Components for

#### Solid Oxide Fuel Cell development

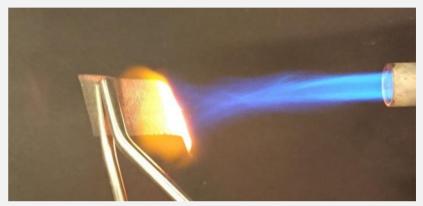
# Platinum M\_Grid<sup>TM</sup>

#### For high operating temperature and wet electrochemistry

At high temperature (>900°C) and for long periods of use (>100h), the ideal cathode current collector, which is known as the gold M\_Grid<sup>TM</sup>, can stick or even melt on the electrodes. For this reason, Fiaxell recommends the use of **platinum M\_Grid<sup>TM</sup>** under these test conditions. **Platinum M\_Grid<sup>TM</sup>** is also an ideal material for room temperature wet electro-chemistry.

#### Platinum M\_Grid™ specifications:

- Material: platinum 99.95 % purity
- □ M\_Grid<sup>TM</sup>: expanded platinum sheet with a fine micro-structure (mesh opening of 0.9 x 1.4 mm and 0.08 mm in thickness; flat rolled for improved electrical contact)
- M\_Grid<sup>TM</sup> is calendered which allows for very low contact resistance compared to a woven mesh
- Robust structure for wet electro-chemistry



With elevated melting point (1768 °C), **platinum M\_Grid™** can be use with SOFC at high temperature (>900°C) and long periods of time (>100h)

### Delivered as raw material or manufactured on request

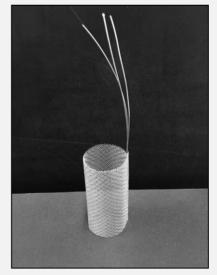
From the rolls, **platinum M\_Grid™** is supplied as disc, rectangle or any shape cut to customer's request. Long lasting electrode current collector are obtained with a double M\_Grid™ layer reinforced with lateral flattened and welded platinum wires that improve the flexibility and robustness. Contrary to woven mesh made with thousands of very fine wires, platinum M\_Grid™ is **one body** structure which prevents **unraveling and fraying**.



**Raw material:** platinum 99.99 %; mesh opening: 0.9 x 1.4 mm; M\_Grid thickness: 0.08 mm; one body structure contrary to woven mesh that often frays



**Platinum M\_Grid™** of diameter 36 mm for 10 cm² surface area electrodes. Lateral flattened Pt wires are welded for robustness, flexibility and long lasting



Platinum basket for wet electrochemistry with double layer of M\_Grid™. Delivered with a taper rod to periodically re-shape it

Our **gold and platinum M\_Grid™**, distributed all around the world are known to be extremely robust, reliable and lasting for years with proper use. Other noble metals **M\_Grid™** are available on request.

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