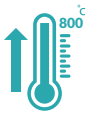
Breakthrough benefits of our process

Standard technology



Energy intensive

Average 8 hours production per batch at high temperatures between 400 and 800 degrees.

Expensive

Expensive equipment, precious metals and high skill workforce.

Low voltage efficiency

Flat electrode surface - low catalytic surface area - low voltage efficiency - less hydrogen produced.

Variable durability and high maintenance cost

3-4 YEARS

Binder used to stick catalysts to substrate. Catalyst layers leaches, cracks and flakes, electrode performance degrades quickly, with average lifetime of 3-4 years.

sparkfuze™

Energy efficient

Low temperatures, production under 1 minute.

Low cost of production

Automated process, off the shelf equipment and lower or no precious metals required.

High voltage efficiency

Very high catalytic surface area = more hydrogen produced with far less electricity.

Very high durability and stable performance

10 YEARS

No binder: Catalyst produced directly into the substrate. Greatly reduced performance degradation, durability tested at 10 years+. Our accelerated degradation tests are carried out in the most demanding conditions.