

**PROCESS GUIDE**

# Representative Catalyst Ageing Without an Engine

## How does CATAGEN age catalysts without an engine?

Using CATAGEN's patented OMEGA technology, a recirculating gas reactor powered by 100% renewable energy, CATAGEN can replicate your engine out emissions. Using synthetic gases CATAGEN can replicate the engine-out conditions from any engine, offering a valuable insight into catalyst durability with novel fuels, with varying temperatures up to up to 1100°C and a range of flow rates pending on the application. Our processes provide industry leading levels of data quality to help you generate representatively-aged catalysts and meet emissions standards.

## CATAGEN's Process

1



Catalyst hardware arrives for installation. We can adapt any shape or size to fit into the OMEGA. We can instrument the system for temperature and O2 and NOx sensors if required.

2



CATAGEN's approach to catalyst ageing allows for reproducibility of data quality. We use our 30+ years of catalysis experience to help determine ageing conditions along with our partners data inputs.

3



CATAGEN Ageing Metric is used to quantify the ageing experience for comparisons, test design and degradation history.

4



Once the ageing cycle commences, we monitor 24/7 with automated alarms that detect catalyst performance to ensure accurate, repeatable & representative ageing. We help you meet emissions targets faster with 24/7 testing and higher accuracy and flexibility.

5



On completion of the testing, we de-mount the system and send back to our partners the same way it was sent to us to ensure you can mount to your engine without issue.

6



When the tests are complete and results are ready, you will receive an in-depth ageing report detailing the ageing experience of your catalyst, reliable aged catalysts and consistent accurate data which can aid with homologation.