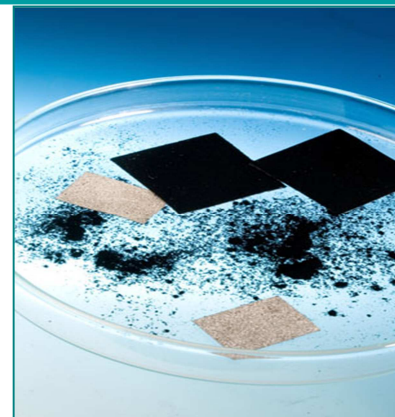


10010

A CATALYST

Acta 10010 is a material designed to show outstanding performances for decomposing pure ammonia at low temperatures. Though designed for decomposing pure ammonia it greatly performs also with diluted ammonia containing streams. It offers high performances coupled with excellent thermal and chemical stability. It could consequently operate in a wide range of experimental conditions.



Composition

Standard composition: Promoted 8.5 wt. % ruthenium loading supported on alumina; Custom ruthenium loadings would be also available upon request.
 Standard form: Spheres, 0.6 mm diameter;
 Additional forms: Available as powder. Other shapes and dimension would be available upon request.

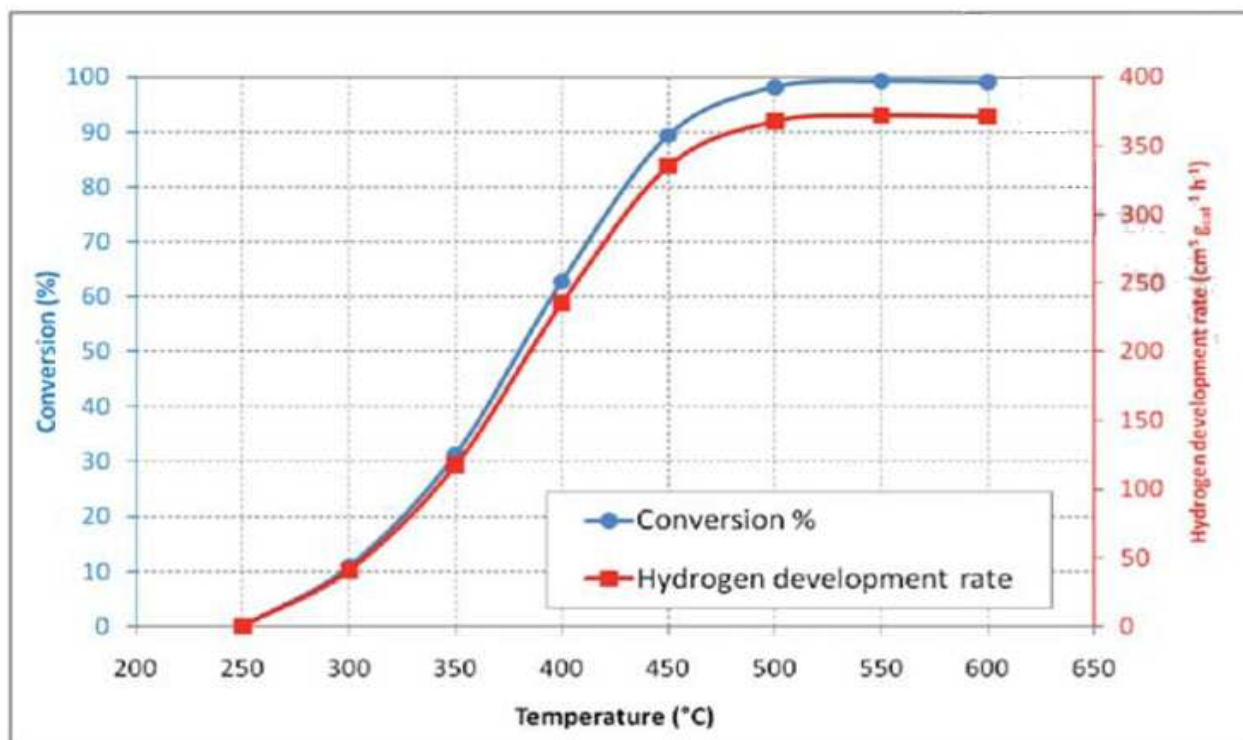
Catalyst activity

Typical conversion vs. temperature plot for a Acta 10010 catalyst tested at GHSV = 15000 h⁻¹ is showed in the figure below. Though Acta 10010 catalyst works usually at low temperature, it retains the below reported activity profile even after long exposition at 800°C under pure ammonia flow.

Physical properties

Performance in Fuel Cell

Packing density: 0.98 kg L⁻¹;
 Mechanical stability: shape and size preserved after a 50 Hz sweep test (20h);
 BET surface area: 113 m² g⁻¹;
 Pore volume: 0.30 cm³ g⁻¹;
 Pore size distribution: 4.3 nm;



Acta S.p.A.

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