

**Clariant Chemistry Day Basel 2018**

Poster abstract

**Catalysts for Production of Ammonia and Methanol as Building Blocks for Chemical Energy Storage**

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Energy storage is a critical issue in a future hydrogen economy. Ammonia and methanol are among the top candidates when it comes to efficient energy storage. The energy consumption of ammonia synthesis can be reduced by operating at lower temperatures and pressures, a challenge that can be overcome by highly active catalysts. Clariant offers catalysts based on Wuestite  $\text{Fe}_{1-x}\text{O}$ , which are considerably more active than conventional magnetite-based catalysts. With a combination of experimental methods and novel computational approaches, Clariant has taken up the challenge of developing new catalysts for even lower temperatures and pressures.