

**Use of Catalysis in Fine Chemical Industry –
From Research to Manufacturing – Case Study**

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Catalysis plays an important role and is widely used in the manufacturing of both chemical intermediates and active ingredients at Syngenta. Catalytic processes involving single phase, two phases as well as three phases liquid-solid-gas are implemented at large scale in several sites of production around the world and particularly at Monthey.

The presentation will cover the main important steps during the research, the development and the industrialisation of a three-phase heterogeneous chemical reaction taking place in the synthesis of a key intermediate of one of Syngenta's fungicide. Catalysts screening, process development as well as chemical reaction engineering aspects, process safety, optimisation and operational challenges at industrial scale will also be covered during this presentation.