

Modern Catalysis in Fine Chemical Transformations

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Now a mature technology, catalysis in its different areas and applications plays an important role in the synthesis of many Pharmaceutical, Agrochemicals and Fine Chemical materials. Despite its maturity, the technology is still evolving.

Changing IP landscapes, new technology developments and innovative applications of older catalysts have a profound impact on the design and optimisation of a chemical synthesis. Thanks to advancements in cross-coupling, hydrogenation and biocatalysis, it is now possible to develop sustainable processes that were not accessible just a few years ago.

Developing catalytic processes is not only a technical problem. The real challenge is to develop the most cost-effective solution to a problem. With multiple catalytic options available today, exploiting the complementarity between different catalytic technologies, for example chemo- and bio-catalysis, can become the key to success.

Examples of how catalysis can be applied to the development of complex chemistries will be shown together with considerations on IP, supply chain and costs.