



## Science@ifpen

Written on 01 June 2012



15 minutes of reading



News

Fundamental Research

Climate, environment and circular economy

CO<sub>2</sub> capture, utilization and storage

Renewable energies

Biofuels and e-fuels

Responsible oil and gas

Fuels



"Catalysis" and "separation" are key skills for environmentally friendly innovation in the

refining and chemicals sectors. The combination of **catalytic** steps and **separation of products** leads to the development of innovative, more energy efficient processes with better yields and limits the production of **by-products**. This has a major impact if we consider that 80% of the products we use have undergone one or more catalysis and/or separation steps at some point in their manufacture.

Thanks to its expertise in these fields, IFPEN has become an internationally renowned player: it is consistently one of the world's top publishers and patent filers in the areas of **catalysis by sulfides** or **zeolites synthesis**, for example. It thereby makes an active contribution to the development of processes in new fields, such as **biofuels**, **bio-sourced chemistry** or **CO<sub>2</sub> capture**. This influence is illustrated in this issue of Science@ifpen through a selection of

news items taken from recent publications that are the fruit of collaboration with academic partners.

We hope that you enjoy this issue.

**Denis Guillaume**, Director, Catalysis and Separation Division

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## Summary:

- Chemistry goes down to the woods
  - **Amines** are experiencing high throughput screening
  - **MOFs**: a building kit
  - Quantum calculation to break the **code of catalysts**
  - **Iron** is best
  - **Syngas** purified on **Zinc**
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Issue 9 of Science@ifpen

01 June 2012

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