





Written on 01 November 2007 15 minutes of reading  
News

- Fundamental Research
- Climate, environment and circular economy
- CO2 capture, utilization and storage
- Sustainable mobility
- IC powertrains
- Responsible oil and gas
- Fuels
- Basins and reservoirs modeling and simulation



The **Grenelle Environment Forum** has strengthened awareness of the need to cut emissions

of greenhouse gases and atmospheric pollutants.

This second issue of Science@ifp highlights scientific advances that will contribute to this. For example, **low-temperature combustion** in the new diesel engines reduces both the **fuel consumption** and the **particulates emissions** of automotive vehicles. Again, the **molecular modelling** tools developed by IFP and its academic partners are contributing to knowledge of the phase equilibriums relevant to the **storage of CO<sub>2</sub>** in underground reservoirs.

As the other items show, in order to ensure a smooth energy transition, IFP also continues its work to improve oil technologies in exploration, production, and refining, which will remain essential to ensuring our energy supplies for a long time to come.

**Philippe Ungerer**, Scientific Director

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## Summary:

- Looking below **diapirs**
- **NMR** goes into the well
- **Fluidized-bed reactors**: optimizing the reaction zones
- **Optimizing complex systems**
- **Cut pollution** by controlling valves
- **Thermodynamics**: from nano to macro



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Issue 2 of Science@ifpen  
01 November 2007

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