

## Christian Serre

<b>Date of birth:</b>	August 28, 1970
<b>Nationality:</b>	French
<b>Position:</b>	Research Fellow CNRS at Institut Lavoisier, University of Versailles (France)
<b>Education:</b>	1990–1994 Engineering degree (option Materials Chemistry), Ecole Supérieure de Physique et de Chimie Industrielles de Paris (France) 1996–1999 PhD with Prof. G. Férey “Synthesis, Characterization, and NMR Study of the Formation Mechanism of Titanium-based Micro- and Mesoporous Solids” University of Versailles (France)
<b>Awards:</b>	2000 Postdoc with Dr. C. In-Gerardin, Princeton (NJ, USA) 2006 Bronze Medal of CNRS 2008 Laureate of the ERC starting grants
<b>Current research interests:</b>	Synthesis and structure determination by using X-Ray powder or single crystal diffraction techniques of new porous hybrid crystallized solids, either with a rigid or flexible framework, based on transition metals (Fe, Cr, V etc.) and polycarboxylates or phosphonates; the development of some of their applications, particularly for the search of new porous materials for adsorption or purification of greenhouse gases or for hydrogen storage; the use of hybrid porous solids for biomedical applications such as drug delivery with a controlled release of biomolecules including cytotoxic drug molecules
<b>Hobbies:</b>	Sports and music



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The author presented on this page has recently published his **10th article** since 2000 in *Angewandte Chemie*: “Quasi-Elastic Neutron Scattering and Molecular Dynamics Study of Methane Diffusion in Metal Organic Frameworks MIL-47(V) and MIL-53(Cr)”: N. Rosenbach, Jr., H. Jobic, A. Ghoufi, F. Salles, G. Maurin, S. Bourrelly, P. L. Llewellyn, T. Devic, C. Serre, G. Férey, *Angew. Chem.* **2008**, *120*, 6713–6717; *Angew. Chem. Int. Ed.* **2008**, *47*, 6611–6615.

**My biggest motivation is...** facing a new challenge.

**My favorite subject at school was...** geography.

**When I was eighteen I wanted to be...** a meteorologist.

**The most significant scientific advance of this century has been...** the discovery of the structure of DNA.

**The biggest challenge facing scientists is...** to find renewable and economically viable sources of energy.

**My most exciting discovery to date has been...** the discovery of hybrid crystallized mesoporous solids.

**In my spare time I...** play with my kids.

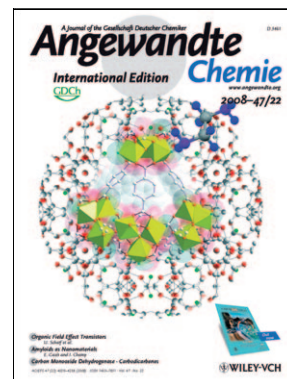
**The secret of being a successful scientist is...** imagination.

**The part of my job which I enjoy the most is...** discussing results with colleagues.

**My favorite composer is...** Johann Sebastian Bach.

### My five top papers:

1. “A New Route to the Synthesis of Trivalent Transition-Metal Porous Carboxylates with Trimeric Secondary Building Units”: C. Serre, F. Millange, S. Surblé, G. Férey, *Angew. Chem.* **2004**, *116*, 6445–6449; *Angew. Chem. Int. Ed.* **2004**, *43*, 6285–6289.
2. “A Hybrid Solid with Giant Pores Prepared by a Combination of Targeted Chemistry, Simulation, and Powder Diffraction”: G. Férey, C. Serre, C. Mellot-Draznieks, F. Millange, S. Surblé, J. Dutour, I. Margiolaki, *Angew. Chem.* **2004**, *116*, 6456–6461; *Angew. Chem. Int. Ed.* **2004**, *43*, 6296–6301.
3. “A Chromium Terephthalate-Based Solid with Unusually Large Pore Volumes and Surface Area”: G. Férey, C. Mellot-Draznieks, C. Serre, F. Millange, J. Dutour, S. Surblé, I. Margiolaki, *Science* **2005**, *309*, 2040–2042.
4. “Role of Solvent-Host Interactions That Lead to Very Large Swelling of Hybrid Frameworks”: C. Serre, C. Mellot-Draznieks, S. Surblé, N. Audebrand, Y. Fillinchuk and G. Férey, *Science* **2007**, *315*, 1828–1831.
5. “Metal-Organic Frameworks as Efficient Materials for Drug Delivery”: P. Horcajada, C. Serre, M. Vallet-Regí, M. Sebban, F. Taulelle and G. Férey, *Angew. Chem.* **2006**, *118*, 6120–6124; *Angew. Chem. Int. Ed.* **2006**, *45*, 5974–5978.



C. Serre has featured on the cover of *Angewandte Chemie*:

Y. K. Hwang, D.-Y. Hong, J.-S. Chang, S. H. Jhung, Y.-K. Seo, J. Kim, A. Vimont, M. Daturi, C. Serre, G. Férey, *Angew. Chem.* **2008**, *120*, 4093; *Angew. Chem. Int. Ed.* **2008**, *47*, 4029.

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