



## SOLEIL Synchrotron is 10 years old

*Ten years ago, France decided to build a third generation synchrotron called SOLEIL. Since the autumn of 2000 when the synchrotron emerged out of the ground, its first users have benefited from the facilities available to them and some specialists even place SOLEIL at the top of the list of the best synchrotrons of its generation. Today, SOLEIL is still at an early stage in its scientific life but it is already providing results: 10 years, over 1,000 publications, almost 2,500 users per year, 5,000 visitors and... 1 book just published by Le Pommier.*

It was in September 2000 that the decision to build SOLEIL was taken, and in 2001 its founders officially launched the start of the project on the site of L'Orme-des-Merisiers at Saint-Aubin, Essonne. This tenth anniversary was a good opportunity to assess progress and highlight the technical and scientific achievements of this great national project, which has become a symbol of French research and innovation.

A project of this size required the commitment, throughout these ten years, of the leading players: the CNRS and CEA shareholders of SOLEIL, and also the "Région Ile de France", the "Conseil général de l'Essonne" and the "Région Centre", who have provided unwavering support in the building of this ambitious synchrotron, shared by a very large scientific community. The 3D structure of viruses, analysis of the varnish used by Stradivarius on his violins, research on bacteria resistant to antibiotics, using graphene in new electronic components, the development of photovoltaic cells, improving cancer diagnosis... these are all examples of SOLEIL synchrotron's contributions to significant research being carried out here week after week.

In spring 2010, SOLEIL invited Vincent Moncorgé, a photographer, to take up residence for 3 months, and capture images, night and day, of the tangle of forms, places, technological skills and human stories that make up the synchrotron, which were then compiled into a book that has just been published.

Welcome to SOLEIL, 10 years later.

### **NOTE**

Located on the Saclay Plateau in the Essonne department, SOLEIL is the third-generation French synchrotron. SOLEIL is a research centre directed by the CNRS (French National Centre for Scientific Research) and the CEA (French Atomic Energy Commission). The building of this type of facility involves major construction work as well as precision mechanical work. Its purpose is to accelerate bunches of electrons until they radiate extremely bright light covering a very wide range of wavelengths: from infrared to x-ray, with ultraviolet in between. The characteristics of this light (intensity, focus, stability, polarization, etc.) allow scientists to observe matter down to the atomic level and perform experiments that would previously not have been possible, in the interests of fundamental, applied, and industrial research. SOLEIL serves many areas currently of particular interest to the scientific and industrial communities: biology, chemistry, materials science, the environment, physics, Earth sciences, cultural ancient materials. SOLEIL's specifications (operating energy, number of undulators, broad spectrum from infrared to x-ray, brilliance, continuous injection for beam stability to within a micron, etc.) make it competitive at the top level on the international scene.

---

### **CONTACT – Communication Department**

Marie-Pauline Gacoin - 01 69 35 90 15 – 06 72 41 36 37- [marie-pauline.gacoin@synchrotron-soleil.fr](mailto:marie-pauline.gacoin@synchrotron-soleil.fr)

Isabelle Quinkal - 01 69 35 90 06- [isabelle.quinkal@synchrotron-soleil.fr](mailto:isabelle.quinkal@synchrotron-soleil.fr)

Website: [www.synchrotron-soleil.fr](http://www.synchrotron-soleil.fr)

Contact: [webcom@synchrotron-soleil.fr](mailto:webcom@synchrotron-soleil.fr)