

China to Participate in the European X-ray Laser Project XFEL

November 25 2005

Within the framework of the meeting of the international XFEL Steering Committee in Berlin, today two representatives of the People's Republic of China's Ministry of Science and Technology signed the Memorandum of Understanding for the European X-ray laser project XFEL. "China's plan to participate in the XFEL X-ray laser project documents the great importance of the XFEL beyond European boundaries" declared the chairman of the DESY Board of Directors Professor Dr. Albrecht Wagner.

The XFEL opens up completely new possibilities for the vast field of structural research. It will generate extremely brilliant, ultra-short X-ray pulses with laser-like properties and offer entirely new research conditions for the natural sciences and industrial users. Researchers will be able to literally film molecular and atomic processes and take snapshots of the atomic details of materials and biomolecules. This will lead to fundamental insights in a wide range of natural sciences - from physics and chemistry to materials science, geological research, and the life sciences. For industrial users, the new facility will for instance provide interesting opportunities for the development of new materials in the nanoworld.

Since the beginning of 2005, apart from China, the ministries of science from Denmark, France, Germany, Great Britain, Greece, Hungary, Italy, Poland, Russia, Spain, Sweden and Switzerland---by joining the Memorandum of Understanding---declared their intention to participate in the preparations for the construction and operation of the XFEL.

Currently they are preparing the agreement for the foundation of a European XFEL research center; the signing of the agreement is anticipated for the coming year. Together with the Netherlands, Slovakia and the European Union, which are present as observers, the signatory countries form the international XFEL Steering Committee.

On the basis of a recommendation by the German Science Council, the German federal government decided in February 2003 to realize the planned X-ray laser XFEL (where X stands for X-ray and FEL for free-electron laser) as a European joint project at the research center DESY. This research facility, which will be unique in Europe, is to take up operation in 2012. The costs for the XFEL amount to 908 million Euro (including the estimated development of price levels until 2012). Germany (government and federal states) will bear approx. 60 percent; the rest is to be contributed by the partner countries.

Source: Deutsches Elektronen-Synchrotron (DESY)

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