News

First undulators reach the SwissFEL building

The first undulator frames have arrived at the SwissFEL building. They will take around six months to assemble, after which the finished undulators will be taken to the SwissFEL accelerator tunnel for installation. The undulators are now being assembled and optimised magnetically in the SwissFEL building. The high precision of the undulator components required for a smooth operation does not allow for any change to the materials that the undulators are composed of; the tiniest of temperature fluctuations would already be sufficient. Consequently, the safety entrances and the rooms prepared for the complete assembly are already at the eventual operating temperature of 24 degrees Celsius. The transport container with the undulator frame are being given time to become acclimatised before the container is finally opened.

Read more on: http://www.psi.ch/media/first-undulators-reach-the-swissfel-building

Research highlight

From inside an eggshell

Manuel Guizar-Sicairos et al, Optica 2, 259-266 (2015), DOI:10.1364/OPTICA.2.000259

Tiny voids inside eggshells supply the materials that stimulate and control the shell’s growth. Using a novel imaging technique, researchers from the Paul Scherrer Institute (PSI), ETH Zurich and the Dutch FOM Institute AMOLF have succeeded in imaging these voids in 3D for the first time. In doing so, they lift an old limitation of tomographic images and hope that one day medicine will also benefit from their method.

http://www.psi.ch/media/from-inside-an-eggshell

Researchers from the Paul Scherrer Institute (PSI), ETH Zurich and FOM Institute AMOLF in the Netherlands have developed a method that enables them to produce extremely detailed 3D images of sections of an object with the aid of x-ray light. They used the technique to render visible a network of nanometre-sized holes in the shell of a chicken’s egg, for which only two-dimensional pictures were previously available. The x-ray images were produced at PSI’s Swiss Light Source (SLS).