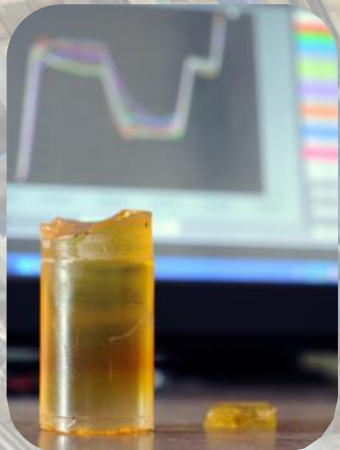


WEST GETS ITS FIRST PLASMA

Alain Bécoulet, IRFM Director, Jérôme Bucalossi, WEST project leader, and all the IRFM staff are pleased to inform you that a first plasma illuminated the WEST vacuum vessel on 14 December 2016 at 6.03pm.

... AND NOW MOVING FORWARD WITH THE RESEARCH PLAN

Final step of the WEST project: in-situ impregnation of the divertor coils



The last crucial milestone of Tore Supra's transformation into WEST has been successfully achieved. One week was necessary for the resin impregnation and the subsequent curing.

After several tests on mock-ups, the impregnation of the upper and lower divertor coils which sit just beneath the plasma facing components was performed on 2 December. 150 liters of a high temperature resistant resin impregnated the conductors over several hours. Then, a three-stage heating cycle (90°C., 120°C. and 170°C.) over several days was used to cure the resin in order to guarantee the electrical insulation of the conductors. The two coils will be powered up to 20kA by two new power supplies provided by our Chinese SWIP partners and recently installed at the IRFM.

The divertor coils are now ready for X-point creation.

Impregnation operation in WEST Torus Hall (resin mixer on the right)

On the way to the first experimental campaign

Systems and plasma commissioning will continue up to February 2017. The new plasma control system is being validated and will be used to develop different magnetic configurations to prepare the experimental campaigns. During this phase most of diagnostics ensuring the plasma control and the wall monitoring system will be made available. The C1 campaign is expected to start in March 2017 and will focus on exploring heat load patterns and H mode transition in the new WEST environment. The C2 campaign (October-December 2017) will allow further characterizing H mode and testing ITER grade plasma facing components under higher heat loads.

Details on <https://westusers.partenaires.cea.fr>

Light painting during final inspection on WEST divertor before vacuum vessel closure.



Institute for Magnetic Fusion Research
DRF/IRFM
CEA Cadarache
13108 Saint Paul lez Durance Cedex France

<http://west.cea.fr>
Contact Newsletter
Sylvie Gibert
sylvie.gibert@cea.fr