

Assemblée Générale de l'Association des Retraités

Grenoble, 25 novembre 2016

La nouvelle équipe vous souhaite la bienvenue



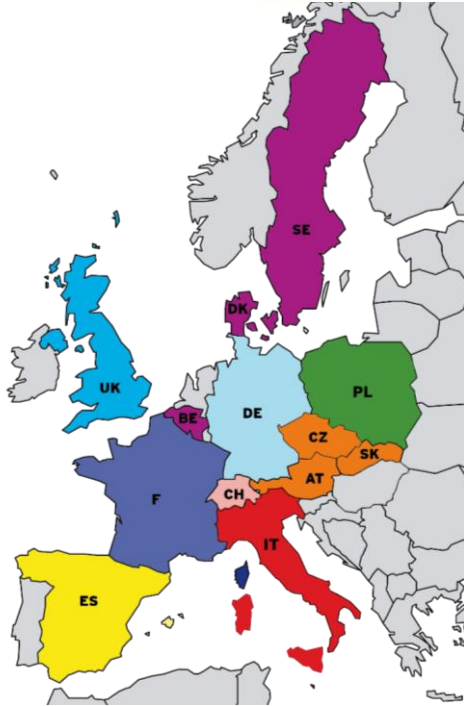
Personalia

Diffraction Groupe Leader

Laurent Chapon is replaced by
Maria Teresa Fernandez-Diaz as
head of the Diffraction Group.



Scientific Members



- **Poland**

- Renewed its membership from 01/06/2016 to 31/12/2018 and increased its contribution from 0,31% to 0,5%.

- **Hungary**

- Currently Hungary is no longer a scientific member of the ILL.
- Management envisages a face-to-face meeting with the Hungarian authorities.

- **Future**

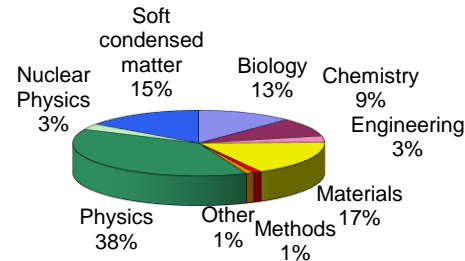
- All contracts have to be renegotiated for 2018.

Current beam time usage

A healthy demand of a bit less than 500 proposals for one cycle

Country	Request days	Request %
AT	46,21	1,48
BE	12,50	0,40
CH	209,10	6,70
CZ	8,71	0,28
DE	863,19	27,64
DK	39,23	1,26
ES	130,96	4,19
FR	810,90	25,97
GB	637,66	20,42
IT	163,97	5,25
PL	44,42	1,42
SE	154,13	4,94
SK	1,52	0,05
Total	3122,49	100,00

Even so we have to wait for the final result of the proposal evaluation we can safely anticipate that overuse by some Scientific Members will be an issue.



The science programme

Probing protective wax films on plant leaves

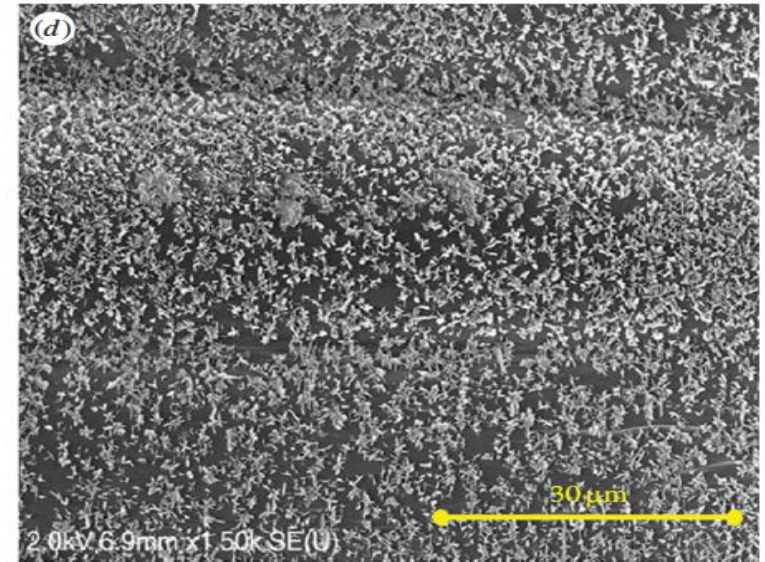
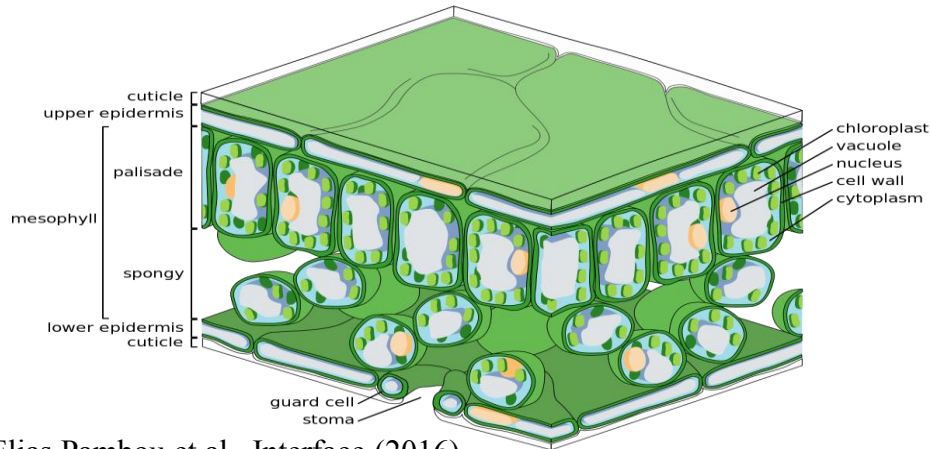
- Plant leaves are covered by a protective film.
- This film is called the cuticle.
- The cuticle is produced by the epidermal cells.
- It consists of lipids and hydrocarbon polymers and is impregnated with wax.
- The wax surface acts as a protective barrier against environmental attacks including pests, and prevents water and nutrient loss.
- The wax surface is also involved in the uptake and transportation of nutrients across the plant surface for plant growth.



The science programme

Probing protective wax films on plant leaves (cuticule végétale)

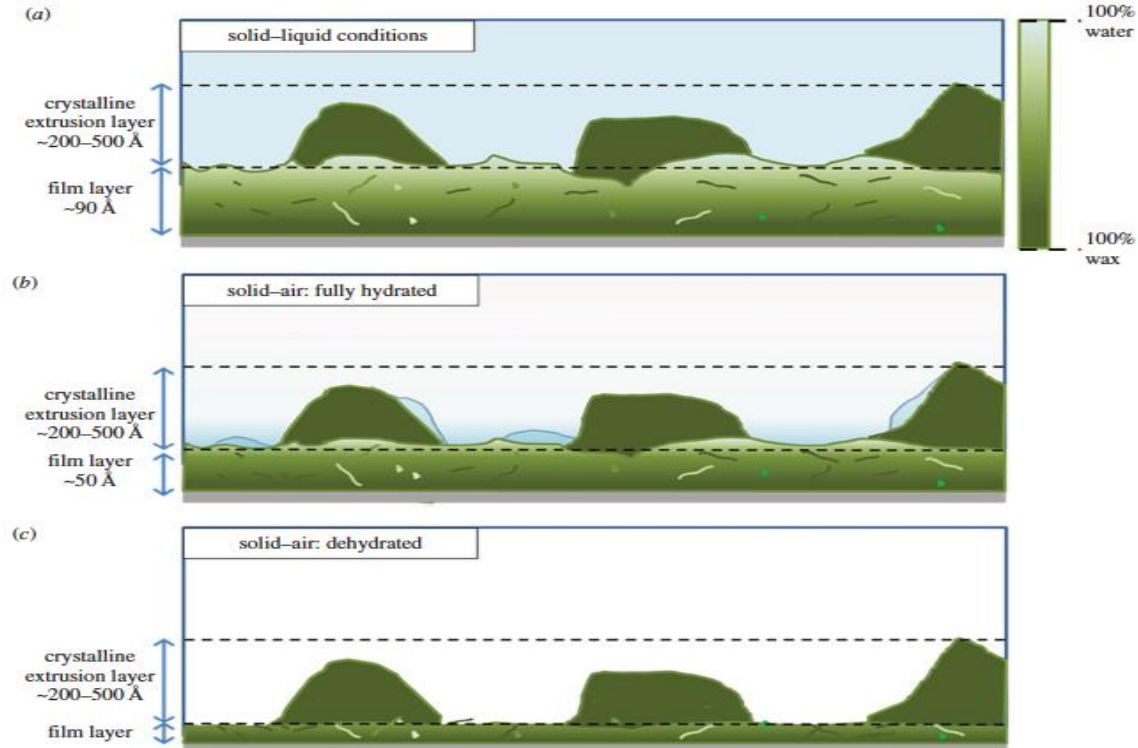
- Understanding the structure and transport properties of the wax film is of great importance for industrial agriculture.
- The results show that artificial films come very close to the natural films.



The science programme

Probing protective wax films on plant leaves

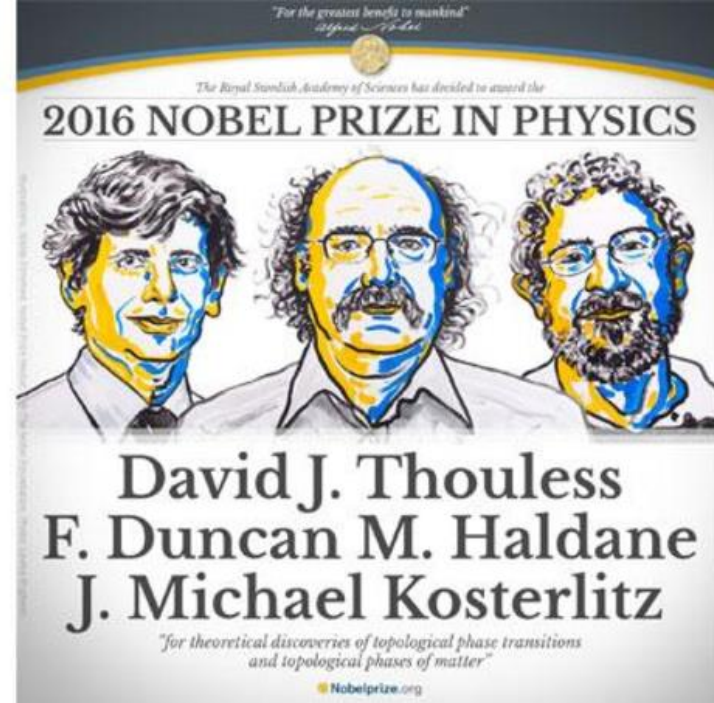
- Solid-liquid and liquid-air neutron reflectometry provides information on film composition and water penetration.
- Experiments were carried out at INTER@ISIS and D17@ILL.
- Off-specular reflectivity gives valuable extra information.
- The a priori impermeable wax film shows surprisingly high water uptake due to its porosity.



ILL's first Nobel Laureate

ILL congratulates Duncan Haldane

- Duncan Haldane was a member of ILL's theory group lead by Ph. Nozières.
- It was during his time at the ILL that he conceived his groundbreaking ideas.
- The experimental verification of the concepts developed by this year's Nobel laureates is at the core of ILL's activity.



Training future neutron users

PhD and trainee programmes are going strong

ILL PhD programme 2016



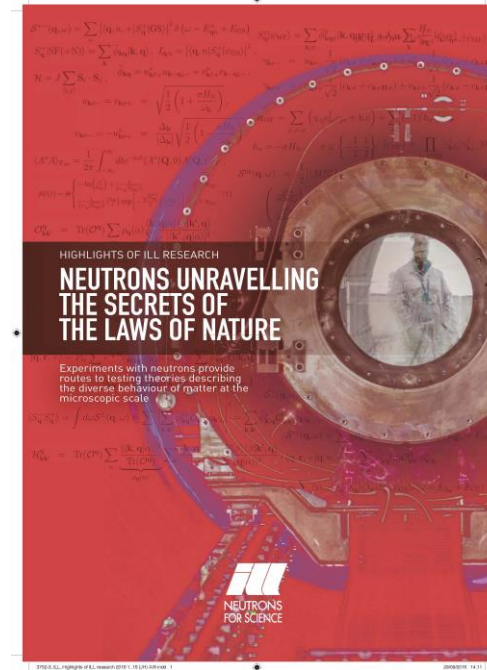
ILL-ESRF Summer School

INSTITUT MAX VON LAUE - PAUL LANGEVIN

Scientific Outreach

ILL celebrates its contributions to the “fundamental laws of nature”

- A new brochure highlights the important contributions of ILL experiments in the investigation of the fundamental relations underlying nature.
- The attribution of the Nobel Prize in Physics to this field comes very timely.



Scientific outreach

International Soft Matter Conference – September 12th -16th



Organised by ILL in collaboration with ESRF, UGA, CEA and CNRS

- **800** submitted abstracts
- **679** participants (**218** students)
- **8** plenary lectures
- **21** keynote lectures
- **116** contributed talks
- **480** posters, **2** sessions
- **36** sponsors

Big showcase for science in soft matter at the epn campus

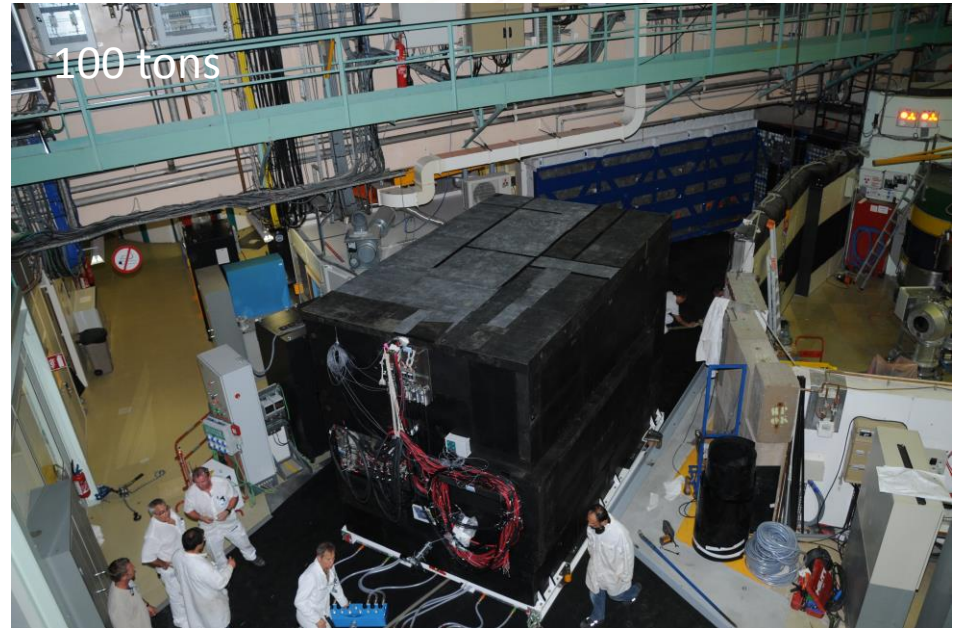


3 awards: EPJE Pierre-Gilles-DeGennes Lecture Prize, Soft Matter Award , IUCr Young Scientist Award

The science programme

Update on projects

- STEREO advances well.
- It consists of a highly efficient detector of a very evasive elementary particle, the neutrino (one out of 10 billion 1 MeV neutrinos hitting the earth is absorbed).



S. Claisse

4.3 Millennium and Endurance programmes

The Millenium Programme enters its final phase

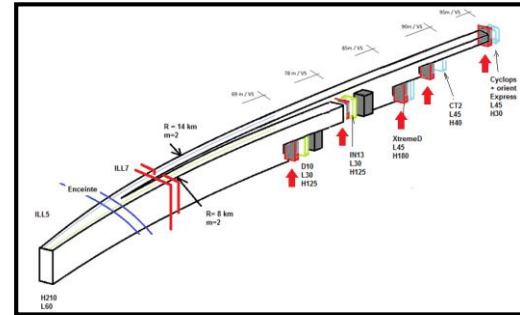
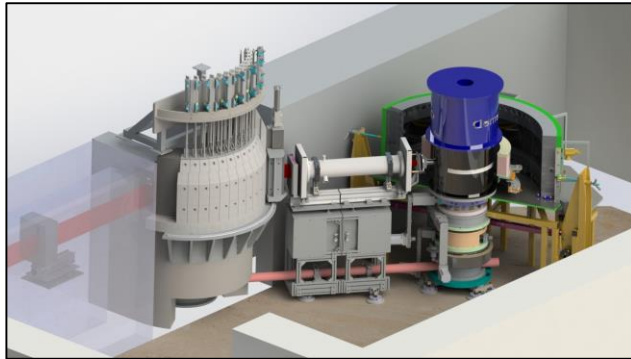
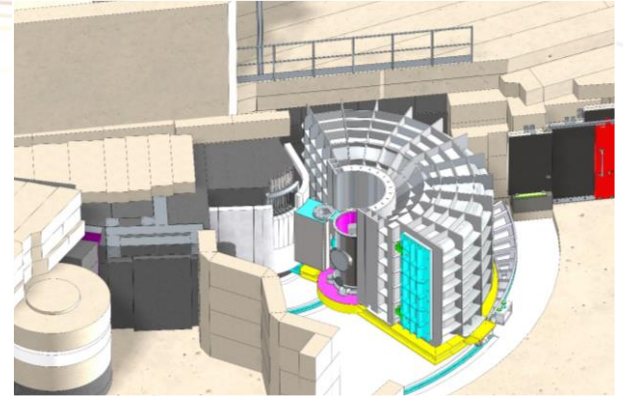
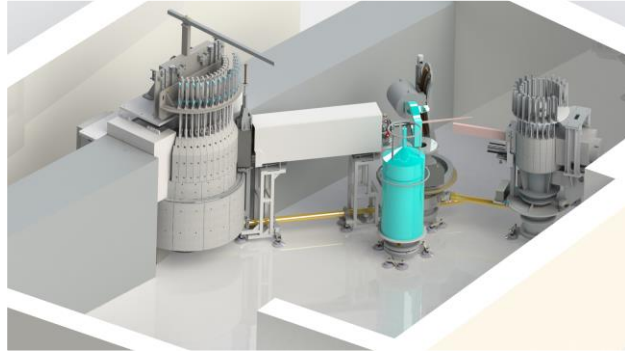


The support and one of the coils of WASP.



Millennium and Endurance programmes

Implementation plan



Reactor operations

The reactor programme for 2016



- The reactor was restarted according to plan on 17 May 2016.
- This restart ended officially the STR programme (although work remains to be done).
- The second cycle has been finished successfully.
- The third cycle has started and will be delivered before the end of the year.

Reactor operations

Major reinforcement work

- In 2016 the ILL has continued improving the safety of its installations in the context of STR.
- This will continue in 2017.



Helmut SCHÖBER – 25 November 2016



Reactor operations

Projects: Preparation of Groupe Permanent

- A successful evaluation by the Groupe Permanent will assure that ILL has the authorization to operate its neutron source for the next 10 years.
- The documents have to be provided for 2 November 2017.

Reactor Operation

Manufacture of fuel elements

- **HEU already received from United States** secures 2 more years of operation.
- **Extension of interim contract** of 03/09/15 under signature at AREVA NP covering:
 - Manufacture of fuel elements RHF 185 to 188 (1 186 k€ each),
 - Manufacture of structural parts of fuel elements RHF 189 to 192 (225 k€ each).
 - The price is unchanged.

NB: reactor operation secured until end of 2018

- **Long term contract**
 - No new developments since the CERCA customers' meeting of March 2016
 - Likely conditions for ILL:
 - Cash advance of several M€ in 2017
 - Temporary price increase for at least 30 fuel elements

Merci beaucoup pour votre attention

The background features a series of colorful lines in shades of yellow, green, blue, and purple that originate from the right side and fan out towards the left. A faint, large, stylized logo is visible in the background, and a solid blue horizontal bar spans the bottom of the slide.

Grenoble, 25 novembre 2016