

SINE2020 General Assembly

Bilbao, 28 June 2019

WP 2 Dissemination

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1. Objectives

Dissemination as a key activity in SINE2020:

- to promote the results of the project
- to demonstrate the scope of the experimental techniques

2. Work carried out

- *Task 1* Tools and material for internal and external communications
- *Task 2* Fostering collaboration between WPs
- *Task 3* Scientific and public outreach

The screenshot shows the SINE 2020 website homepage. At the top left is the SINE 2020 logo. Below it are login fields for 'User Name' and 'Password', with links for 'Log in', 'Lost Password', and 'Register'. A navigation menu includes 'ABOUT', 'R&D ACTIVITIES', 'INDUSTRY', 'TRAINING', and 'NEWS AND MEDIA'. A 'Search' box is located in the top right. The main content area features a 'News' section with the headline 'Science & Innovation with Neutrons in Europe in 2020' and a sub-headline 'Latest news'. Below this are three news items: 'Neutrons for the Biotech Industry video!', 'Neutrons for Residual Stress Measurements', and 'Deuterated polymers for neutron techniques'. Each item includes a date, a short description, and a 'read more' link. To the right is an 'Events' section with a list of upcoming events: 'SINE2020 General Assembly' (27. May 2019 - 29. May 2019), '1st Bilbao Neutron School' (17. June 2019 - 19. June 2019), and 'Innovative Simulation Tools, Shielding and Instrumentation 2019 (ISTI2019)' (29. June 2019). Below the events is a 'Publications' section with an Open Access icon and text stating that all scientific peer-reviewed publications from H2020-funded projects must be available in open access. A 'Quick Access EU Funding Statement' section features the EU flag and text indicating that project funding from the European Union's Horizon 2020 research and innovation programme is acknowledged. At the bottom, there is a 'Tweets by @EUNeutron' section with a Twitter icon and the text 'EU Neutron'. Callout boxes on the left and right point to these various sections: 'Internal' points to the login area; 'Videos' points to the 'Neutrons for the Biotech Industry video!' article; 'Industry events' points to the 'Neutrons for Residual Stress Measurements' article; 'The Road to the ESS' points to the 'The Road to the ESS' article; 'Events' points to the 'Events' section; 'Publications and Software' points to the 'Publications' section; 'Quick access EU Funding Statement' points to the 'Quick Access EU Funding Statement' section; and 'Social media' points to the 'Tweets by @EUNeutron' section.

Internal

Videos

Industry events

The Road to the ESS

Events

Publications and Software

Quick access EU Funding Statement

Social media

Dear colleagues,

The 16th edition of our *Inside SINE2020* newsletter will bring you the following news:

News of SINE2020:

- General Assembly 2019 in Bilbao, Spain. REGISTER NOW!
- The Road to the ESS: We've visited Portugal, Spain, France, Italy, Hungary, Czech Republic.
- Work package 8 E-tools Satellite Workshop in St Petersburg
- Workshop IV for Data Treatment in Lund
- Neutrons for Membrane Biophysics School

Calendars

EVENTS in 2019: Meetings, Conferences, Conventions and Exhibitions

The Neutronsources.org events calendar is regularly updated and can be found [here](#)

April 2019

Adverts

ISIS Neutrons and Muon Source is a world leading centre for multi-disciplinary research at the Rutherford Appleton Laboratory near Oxford. Staffed by the UK Science and Technology Facilities Council, our suite of over 30 neutron and muon instruments give unique insights into the properties of materials on the atomic scale.

- Over 2000 user sites: solid state physics, ML, environmental engineering, catalysis, cultural heritage and food research
- Extensive expertise and user support
- Innovative training/engagement programmes

Developing the skills of the user community with over 1200 PhD students starting each year.

[www.isis.stfc.ac.uk](http://isis.stfc.ac.uk)

<http://sine2020.eu>

Industrial case studies (WP4)

METALLURGY

ALLOY AGEING



Understanding the structure of aged Ni-Cr based alloys

EDF (Electricity of France) is a major electricity utility company which operates all the nuclear power plants in France.

THE PROBLEM TO SOLVE:

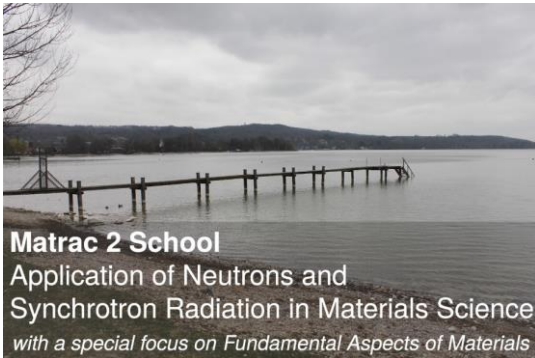
The integrity of some Pressurized Water Reactor (PWR - Fig.1) components can be affected by thermal ageing. EDF aims to identify this Ni-alloy ageing in the early stages.



A STEP TOWARDS THE SOLUTION

Quantitative evaluation of the degree of order (at the atomic level) within the Ni-alloy samples is important to identify thermal ageing. Neutron diffraction is the only technique that provides quantitative analysis by measuring the intensity and width of super-lattice peaks in the alloys. This technique is non-destructive and does not add

General website tidy-up



Matrac 2 School
Application of Neutrons and Synchrotron Radiation in Materials Science
with a special focus on Fundamental Aspects of Materials

Neutrons for the Biotech Industry
28-29 March 2019
Zaragoza

Videos and reports on WP10, WP3 and WP4 events

Publications 2019

SINE2020 Publications

Maarten Mulder, Xuesong, X. Li, Mohammad M. Nazim, Robert M. Dalglish, Bei Tian, Marten Buijse, John van Wunnik, Wim.G.Bouwman
Systematically quantifying oil-water microemulsion structures using (Spin-Echo) Small Angle Neutron Scattering
▼ *Colloids and Surfaces A* 26 April 2019

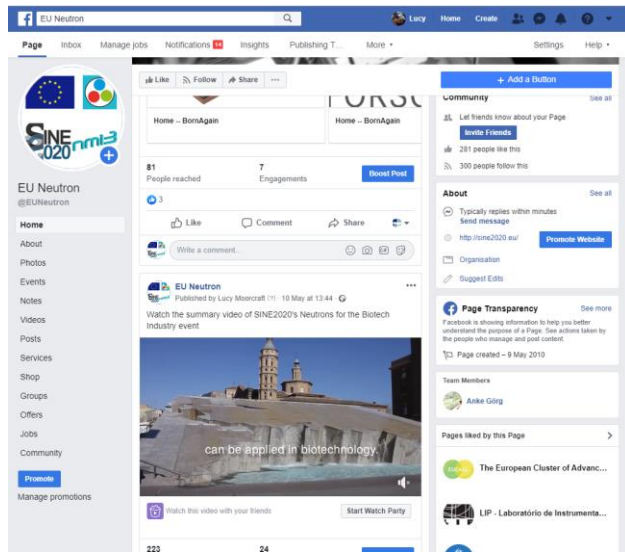
Niki Baccile, Elisabeth I. P. Delbeke, Martha Brennich, Chloé Seyrig, Jonas Everaert, Sophie L. K. W. Roelants, Wim Soetaert, Inge N. A. Van Bogaert, Kevin M. Van Geem, and Christian V. Stevens
Asymmetrical, Symmetrical, Divalent, and Y-Shaped (Bola)amphiphiles: The Relationship between the Molecular Structure and Self-Assembly in Amino Derivatives of Sophorolipid Biosurfactants
▼ *J. Phys. Chem. B* 19 April 2019

Valeria Nele, Margaret N. Holme, Ulrike Kauscher, Michael R. Thomas, James J. Douthett, and Molly M. Stevens
Effect of Formulation Method, Lipid Composition, and PEGylation on Vesicle Lamellarity: A Small-Angle Neutron Scattering Study
▼ *Langmuir* 12 April 2019

Julie B. Hipp, Jeffrey J. Richards and Norman J. Wagner
Structure-property relationships of sheared carbon black suspensions determined by simultaneous rheological and neutron scattering measurements
▼ *J. Rheology* 9 April 2019

Social media

Facebook



EU Neutron Facebook Page: 300 people

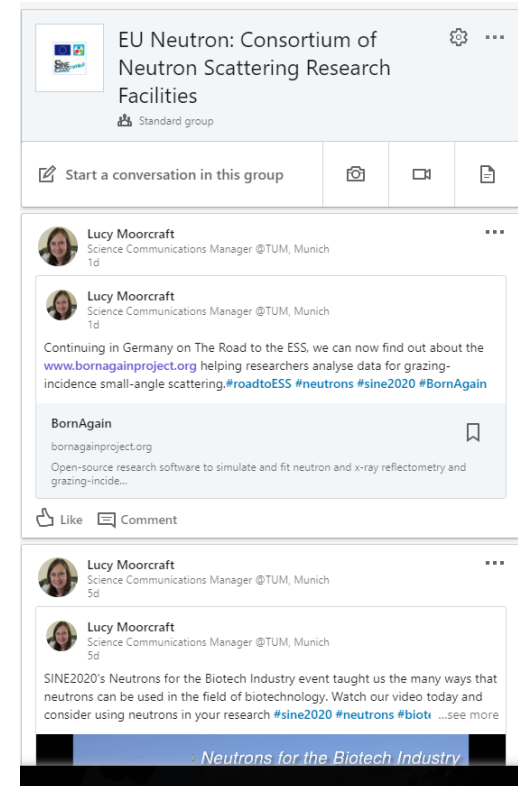
EU Neutron Twitter: 847 Followers

EU Neutron LinkedIn page: 118 members

Twitter



LinkedIn



Youtube (158 subscribers)

The Road to the ESS



■ 12 months, 12 countries

Portugal

Spain

France

Italy

Hungary

Czech Republic

Germany



France

SINE2020 Partners: [ILL](#), [CEA/LLB/CNRS](#)

Scientist Spotlight: [Irène Joliot-Curie](#)

Hosted [Data Treatment's Workshop II](#) at ILL in Grenoble, 24-25 April 2017.

Hosted [SYNERGI 2019](#) in Lyon on 1st April 2019.

Industrial Case Study: [EDF](#)

Contribution – *E-learning and Schools* [Advanced Neutron Schools](#)

Contribution – *Data Treatment* [Mantid at ILL](#)

Contribution – *Detectors* [Micromegas Detectors](#), [Microstrip Gas Chambers](#)

Contribution – *Chemical Deuteration* [Deuteration of Biomolecules](#)

Contribution – *Crystal Growth* [Methods for large protein crystal growth for neutron protein crystallography](#), [Using high magnetic fields](#)

French Women in Science: [Virginie Simonet](#) and [Marie Plazanet](#)



Spain

SINE2020 Partners: [ESS-Bilbao](#), [ICMA](#)

Scientist Spotlight: [Blas Cabrera Felipe](#)

Will be hosting our final [General Assembly 2019](#) in Bilbao

Hosted SINE2020's [Neutrons for the Biotech Industry](#) event in Zaragoza.

Feasibility test with Spanish company Tryo Aerospace. Read all about the aims of [SINE2020 and Industry](#).

Contribution – *Sample Environment*: [MC Simulations at ICMA](#) to improve simulation of the signal-to-background ratio.

Contribution – *Instrumentation: E-tools*: [Simulating Laminar Shielding Concepts](#)

Spanish Women in Science: [Arantxa Arbe](#)



Portugal

SINE2020 Partner: [LIP Coimbra](#)

Scientist Spotlight: [Egas Moniz](#)

Hosted our first [General Assembly in Coimbra](#)

Hosted the [Neutrons: Cradle to Grave](#) workshop for *E-tools*, the work package looking at neutron experiment simulations.

Contribution – *Detectors*: [Resistive Plate Chambers](#), [RPCs – How they work](#), [RPCs: Results so far](#)

Portuguese Women in Science: [Maria Paula Marques](#) and [Susana Teixeira](#)



Germany

SINE2020 Partners: [HZB](#), [HZG](#), [MLZ/TUM](#), [FZI](#)

Scientist Spotlight: [Otto Hahn](#)

Industrial Case Study: [Haldor Topsoe](#)

Contribution – *Chemical Deuteration* [Deuterated polymers](#)

Contribution – *Data Treatment* [BornAgain](#)



Czech Republic

SINE2020 Partner: [NPI](#)

Scientist Spotlight: [George Placzek](#)

Hosted the [Sample Environment meeting in November 2018](#).



Hungary

SINE2020 Partner: [MTA EK](#)

Scientist Spotlight: [Leo Szilard](#)

Industrial Case Studies [Neutrons for building a car](#) and [Novozymes](#).

Contribution – *Schools* co-ordinating the [Introductory Neutron Schools](#)

Contribution – *Industry* including performing feasibility study measurements and helping at Industry events like the [Automotive Expo](#)



Italy

SINE2020 Partner: [University of Parma](#)

Scientist Spotlight: [Enrico Fermi](#), [Emilio Segre](#)

Hosted the [2018 General Assembly in Parma](#)

Hosted [Data Treatment's Workshop III](#).

Contribution – *Data Treatment* [Muon Spin Rotation and Relaxation Spectroscopy](#), [Computational modeling for muon spectroscopy](#), [Atomic Modelling for Data Treatment](#)

Italian Women in Science: [Laura Bassi](#) and [Giovanna Fragneto](#)

Thank you to...

Luis Margato, Javier Campo, Miguel Magan, Caroline Boudou, Catarina Espirito Santo, Alain Menelle, Ashley Jordan, Martin Boehm, Peter Willendrup, Eddy Lelièvre-Berna, Thomas Rod, Zoe Fisher, Trevor Forsyth, Tobias Schrader, Marialucia Longo, Roberto De Renzi, Krishna Batchu, Giovanna Fragneto, Bruno Guerard, Verena Reimund, Miguel Gonzalez, Jürgen Allgaier, Joachim Wuttke, Julian Oberdisse, Adel Len, Marc Thiry, Jan Saroun, Klaus Pranzas, Nicola Kampner, Nigel Rhodes, Hanna Wacklin-Knecht, Anna Leung, Peixun Li, Kun Ma, Erik Schooneveld, Davide Raspino, Paul McIntyre, Graham Burgess, Mark Kibble, Steve Cottrell, Chris Goodway, Linda Udby, Oliver Bogojevic and *all of you who will be helping me in the future...*

...for explaining, editing, correcting, chasing-up people, providing images, telling me about their events, responding to my emails and answering all my questions!

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Neutronsources.org

Your entry into the neutron world

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- News
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- Resources
- Calendar

Welcome to Neutronsources.org

Neutrons are produced at large research infrastructures. Researchers use them to look inside materials. With neutrons one can e.g. look inside a car engine, investigate drug delivery, see how plants uptake water, get insights into the development of superconductors.

This website aims to provide information about neutron facilities and neutron research worldwide. Get to know:

- [What are neutrons](#)
- [Neutron scattering history](#)
- [Women in Science](#)
- [Proposal deadlines](#)
- [Jobs](#)

Get in touch

If you are from a neutron facility and would like to send your latest highlights please email us at info@neutronsources.org.

Mailing list

To be informed of neutron-related activities and developments please subscribe to the neutron sources [mailing list](#).

Tweets by @NeutronSources

Neutron Sources Retweeted

EU Neutron @EUNeutron

Continuing in Germany on The Road to

15.05.2019
ILL, France

Towards a new era for backscattering spectroscopy

Today, in a collaboration financed by Germany's Federal Ministry of Research, the ILL and the Friedrich-Alexander University (FAU) Erlangen-Nürnberg have taken a major stride towards the construction of a GaAs-based ...

[» read more](#)

1 2 3

08.05.2019 From:ILL, France

Scientists explore the unknown behaviour of gold nanoparticles with neutrons

Researchers investigate new interactions between gold nanoparticles and cell membranes. Gold nanoparticles have a range of biomedical applications and are an important tool for drug delivery. Factors such as temperature and membrane charge are revealed to play a key role – findings that will help scientists better predict how gold nanoparticles behave within the body.

[» read more](#)

08.05.2019 From:ILL, France

No dark side to neutron decay

Precise measurements at the ILL of beta asymmetry rule out neutron decay into exotic dark matter particles.

Last year, scientists became rather excited when they thought they might have found evidence for the production of dark matter particles from experiments measuring the

Neutron community:

- Jobs,
- News
- Women in Science
- Proposal deadlines, beam operating times
- Events
- History

3. Impact

SINE2020 website

Between GA Parma and now:

- 6787 visits, 17357 page views of which 12891 unique
- 2min 45s average visit
- People from all over the world
- Popular sections are News and Media, Calendar, About and

The Road to the ESS

- MSGCs and Crystal Growth most read articles!

■ Facebook

Most popular posts

- Neutrons for the Biotech Industry video and event
- Matrac 2 Neutron School
- SYNERGI 2019
- Germany: MLZ and FZJ
- BNC case study

Twitter

3. Impact

Month	Impressions	Link clicks	Retweets	Likes	Top Tweet
May 1st-16 th	34.2K	31	22	34	Biotech video
April	18.2K	53	40	75	SYNERGI 2019
March	23.9K	69	63	78	Biotech event
Feb	14.5K	82	38	55	Italy: Fermi
Jan	13.2K	43	38	41	SINE2020 and Industry
Dec	7.7K	41	19	36	Women in Science profile
Nov	8,9K	28	17	35	CETS2019 and RPCs
Oct	5.4K	21	12	20	The Road to the ESS
Sept	7.6K	40	26	43	Case studies
Aug	2.3K	4	0	0	(15 new followers)
July	6.5K	37	13	39	Task Completed
June	8.1K	13	12	18	Matrac 1

CORDISwire → www.phys.org

Free Email Addresses: Web base... German with Jenny | Member D... The Road to the ESS - About - S... Home - Neutronsources... EU Neutron - Home... Resistive plate chambers as neut...

https://phys.org/news/2019-03-resistive-plate-chambers-neutron-detectors.html

PHYS ORG Topics

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MARCH 13, 2019

Resistive plate chambers as neutron detectors

by CORDIS

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Holographic imaging of electromagnetic fields using electron-light quantum interference 19 MINUTES AGO 0

Study finds open cluster NGC 2682 at least two times larger than previously thought 49 MINUTES AGO 1

Bumps on peacock spider make dark spots super-dark 58 MINUTES AGO 0

Single-atom nanozymes MAY 14, 2019 1

Millihertz quasi-periodic oscillations detected in the X-ray binary EXO 0748-676

3:49 PM 5/15/2019

- <https://phys.org/news/2019-03-resistive-plate-chambers-neutron-detectors.html>

3. Impact

- Website is a record of what SINE2020 has achieved.
- Videos, case studies etc that can be used to market and showcase neutrons, the ESS, the achievements of the project for a long time to come.

The final few months...

- More articles
- More data collection
- I NEED YOUR HELP!!!