

Minutes

Fall Business Meeting of the EFC Working Party 4 'Nuclear Corrosion'

September 10, 2025, 15:00 – 15:40

Stavanger, Norway

Written by:

Laure Martinelli & Stefan Ritter

Diffusion:

WP 4 Members & Friends

Roman Bender (EFC Scientific Secretary)

Stefan Ritter (EFC STAC Chair)

Gareth Hinds (EFC President)

Attendees:

Approx. 25 persons.

Apologies for absence received from: Ch. Lilja, M. Schlegel, D. Féron, I. Proriot Serre, etc.

Agenda:

- 1) Opening of the meeting, apologies for absences, approval of the agenda
- 2) WP 4 awards ceremonies
- 3) Approval of the minutes of the 2024 Fall Meeting
- 4) EFC WP 4 internal matters
 - Members and “friends”
 - WP 4 prizes (rules)
 - Call for nominations for the 2026 Coriou Award and Jury selection
- 5) EFC WP 4 publications
 - Books & special issues published or under publication
 - Future publications
- 6) EFC WP 4 past events
 - 6th Nuclear Corrosion Online Seminar
- 7) EFC WP 4 future events (other than EUROCORRs)
 - 7th Nuclear Corrosion Online Seminar
 - LTC 2025
 - ICCPA 2026
 - NuCoSS-27
- 6) EUROCORRs
- 7) Discussion about other WP 4 activities
- 8) Any other business (website, next meeting, EU-projects, etc.)
- 9) Closure

Appendix: Appendix 1) Meeting slides presented by Stefan Ritter.*

*) Document available only on the private space of the EFC WP 4 website, for WP 4 members/friends only.

Executive summary

The EFC WP 4 Fall Meeting 2025 opened with Stefan Ritter sharing the sad news of Digby MacDonald's passing, after which the meeting proceeded. The agenda was presented and approved, and the 2024 minutes were confirmed without amendments.

During the meeting, the WP 4 awards were presented. Ingrid Proriol Serre (CNRS, France) received the Henri Coriou Award in recognition of her outstanding contributions to nuclear corrosion, presented prior to her keynote lecture. Daniel Stein (SCK-CEN, Belgium) was awarded the oral presentation prize for his talk on the effect of dissolved iron and nickel on 316L stainless steel corrosion in liquid lead, while Sebastian A. Skaanvik (Western University, Canada) received the poster prize for his work on copper corrosion in nitric acid. Prizes included an EFC Green Book, a Swiss Army knife, and a monetary award.

Stefan reminded participants that the WP 4 members and friends list is available on the internal website and introduced a form for those interested in joining activities. He reaffirmed the objectives for 2024–2026: facilitating collaboration between European teams and EU-funded programs, promoting scientific exchange on nuclear corrosion topics, and supporting knowledge dissemination through seminars, workshops, and publications. The jury for the 2026 Henri Coriou Award was announced, and nominations are open until February 2026.

Recent publications were highlighted, including a special issue of Corrosion Reviews on EUROCORR 2022, EFC Green Book No. 71 on corrosion modelling, and a special issue of Materials & Corrosion from LTC 2022. Past events included the 6th Nuclear Corrosion Online Seminar in July 2025, attended by approximately 30 participants. Plans for future events were outlined, such as the 7th Nuclear Corrosion Online Seminar in 2026, the LTC 2025 workshop in Japan, ICCPA 2026, and the NuCoSS-27 Summer School in Slovenia in 2027.

Stefan provided a summary of EUROCORR 2025, noting the high-quality nuclear corrosion sessions with 36 oral presentations, five posters, and around 40 participants per session. Upcoming conferences include EUROCORR 2026 in Dublin, featuring joint sessions and an AI-focused workshop, and EUROCORR 2027 in Prague.

Funding opportunities from the EFC of up to €1,000 were discussed, with a proposal to support two young researchers attending NuCoSS-27. Participants were reminded of the WP 4 website as a resource and collaboration tool, and encouraged to submit ideas, events, or publications. The next meeting will take place at EUROCORR 2026 in Dublin. Stefan also noted that 2025 marks the 70th anniversary of the EFC, and that the Nuclear Corrosion WP was among the first WPs created.

The meeting concluded with thanks to participants for their contributions and support, and a reminder to complete the EUROCORR survey to help improve future events. Active participation in WP 4 activities was emphasized as essential to achieving its objectives.

Detailed minutes

Before beginning the meeting, Stefan Ritter shared the sad news of Digby MacDonald's passing. The meeting then proceeded.

1) Opening of the meeting, apologies for absences, approval of the agenda

Stefan Ritter opened the Fall Meeting, welcoming attendees and thanking them for their participation. The agenda was presented and approved as outlined above.

2) EFC WP 4 awards ceremony

The WP 4 honorary medal, the Henri Coriou Award, is presented annually to an expert or group recognized for outstanding contributions to nuclear corrosion. A jury, composed of the Chair and Vice-Chair of WP 4 and three members nominated at the previous Fall Meeting, selected this year's recipient. For 2025, the Henri Coriou Award was given to Ingrid Proriol Serre (CNRS, France) for her exceptional contributions to nuclear corrosion science and engineering. The award, consisting of a medal and diploma, was presented by Stefan Ritter. The CEA's sponsorship of the medal—made of a Ni-base alloy—was gratefully acknowledged. As Ingrid Proriol Serre was unable to stay until the WP 4 meeting, the award was presented on the eve of the working party meeting, prior to her keynote lecture titled: *"Liquid Metal Embrittlement Sensitivity by Lead and Pb-Bi Eutectic of Face-Centered Cubic Metallic Alloys: Austenitic Steels and Complex Concentrated Alloys."*

The oral presentation prize was awarded to Daniel Stein (SCK-CEN, Belgium) for his presentation on: *"Effect of Dissolved Iron and Nickel on Corrosion Behavior of 316L Austenitic Stainless Steel in Liquid Pb."* Stefan Ritter noted the high quality of oral presentations, which made selecting a winner particularly challenging.

The **poster prize** was awarded to **Sebastian A. Skaanvik (Western University, Canada)** for his poster: “Corrosion of Copper in Nitric Acid: Towards Understanding the Degradation Pathway of Used Fuel Containers.”

The prizes for the best oral and poster presentations consisted of:

- EFC Green Book No. 69 (Nuclear Corrosion: Research, Progress and Challenges), sponsored by Elsevier.
- A Swiss Army knife engraved with “EUROCORR 2025” and “WP4: Best Presenter,” sponsored by the EFC.
- €200, sponsored by ZAG.

3) Approval of the minutes of the 2024 Fall Meeting

No comments or corrections were received. The 2024 minutes were approved unanimously.

4) EFC WP 4 internal matters

Stefan Ritter reminded participants that the WP 4 member and friends list is available in the password-protected area of the WP 4 website.

WP 4 members include delegates nominated by national EFC member societies and individuals nominated by the Chair. Those interested in WP 4 activities but not members of a national EFC society are designated as “Friends.” Individuals without a national EFC member society may create a local branch (instructions available on the EFC website).

A contact form is available for participants interested in WP 4, accessible via the QR code on slide 9 of Stefan’s presentation.

Stefan then presented the WP 4 objectives for 2024–2026:

- Facilitate links between European teams and EU-funded programs in nuclear corrosion, with global outreach.
- Encourage exchange of scientific and technical knowledge in nuclear corrosion, focusing on key research areas: waste systems, water reactors, Generation IV, and fusion reactors.
- Promote corrosion science through seminars, workshops, publications, and related events.

Stefan also outlined the composition of the prizes and Coriou Award juries for 2025 and proposed the jury for 2026, including Ingrid Proriol Serre (Coriou Award 2025 recipient), the WP 4 Chair and Vice-Chair, and two additional members (Lydia Laffont and Valentyn Tsisar). Stefan reminded that nominees ranked second and third in the previous year are automatically considered for the following year. Nominations for the 2026 Henri Coriou Award are open until February 208, 2026.

5) EFC WP 4 publications

Stefan Ritter reminded members that EFC-affiliated society members receive a 30% discount on EFC-published books.

Recent WP 4 publications include:

- Special issue of *Corrosion Reviews*: “EUROCORR 2022 – Nuclear Corrosion”.
- EFC Green Book No. 71: *Corrosion Modelling with Cellular Automata*, edited by D. Féron (CEA) and D. Di Caprio (Chimie ParisTech).

- Special issue of *Materials & Corrosion*, Vol. 74, No. 11–12, Nov.–Dec. 2023, mostly open access.

Members are encouraged to propose new publications or Green Book contributions; the WP Chair will support such initiatives.

6) EFC WP 4 past events

Since the last EUROCORR, the 6th Nuclear Corrosion Online Seminar was held on July 3, 2025. Professor Adrien Couet delivered a presentation titled: “*Accelerated Alloy Discovery for Molten-Salt Reactors via High-Throughput Corrosion Testing and Machine Learning.*” Approximately 30 participants attended.

7) EFC WP 4 future events (other than EUROCORRs)

Stefan Ritter highlighted upcoming WP 4 events:

- 7th Nuclear Corrosion Online Seminar: Proposed around Corrosion Awareness Day 2026 or later. Suggested topic: Flow-Accelerated Corrosion. Duration: ~1 hour including Q&A. Other topics or expert suggestions were still welcome.
- 9th Int. Workshop on Long-term Prediction of Corrosion Damage in Nuclear Waste Systems (LTC 2025): Sendai, Japan, November 4–6, 2025.
- ICCPA (European-Chinese Corrosion Conference): July 2026. Conference fees and accommodations covered for nominated attendees (keynote speakers). Proposals can be sent to Stefan.
- Nuclear Corrosion Summer School (NuCoSS-27): June/July 2027, Slovenia. Speaker for the nuclear MIC lecture (previously given by Renate Killian) needs to be selected.

Stefan requested suggestions for other nuclear corrosion events and possible joint sessions with other WPs; no proposals were made.

8) EUROCORRs

Stefan Ritter provided an overview of EUROCORR 2025:

- Nuclear corrosion session: 36 oral presentations and 5 posters, 20–50 attendees per session (average ~40).
- Total registered participants: ~1,200, including 607 talks, 135 posters, and 6 plenary lectures.

Future EUROCORRs:

- EUROCORR 2026: Sep. 6-10, Dublin, Ireland. Regular nuclear corrosion session, plus a proposed joint session: “*Imaging Corrosion: New Frontiers in Materials Degradation Research*”. Special workshop on AI applications in corrosion research to be held Thursday afternoon.
- EUROCORR 2027: Sep. 12-16, Prague, Czech Republic. Regular nuclear corrosion session; proposals for special sessions welcome.
- EUROCORR 2028: approx. Sep. 3-7, Ljubljana, Slovenia. Regular nuclear corrosion session; proposals for special sessions welcome.

9) Discussion about other WP 4 activities

Stefan reminded participants that up to €1,000 can be requested from the EFC to support WP 4 activities (e.g., extra meetings, grants, support for young researchers, publications). Funds cannot be used for special guests or lecturers at EUROCORR.

He proposed supporting two young researchers to attend NuCoSS-27. Other suggestions for WP 4 activities are welcome.

10) Any other business

Stefan highlighted the WP 4 website as a resource for information and collaborative tools, encouraging members to contribute content.

He mentioned European projects related to WP 4, including MEACTOS (completed) and INCEFA-SCALE, and invited suggestions for additional WP 4 meetings.

The next WP 4 meeting will be held at EUROCORR 2026 in Dublin, Ireland. Stefan noted that 2025 marks the 70th anniversary of the EFC (1955–2025) and that the Nuclear Corrosion WP was among the first WPs created.

11) Closure

No further points were raised. Stefan Ritter closed the meeting, sharing a QR code for the EUROCORR survey and encouraging participants to complete it. He thanked attendees for their support and emphasized that active participation is essential to achieving WP 4 objectives. Participants expressed their appreciation for Stefan's commitment and leadership in organizing the meeting.