



Union Internationale Pour La Science, La Technique et Les Applications du Vide
International Union for Vacuum Science, Technique and Applications
Internationale Union für Vakuum Forschung, Technik und Anwendung

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IUVSTA Communications Committee Co-Chair



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The 101st IUVSTA workshop on high performance SIMS instrumentation and machine learning / artificial intelligence methods for complex data will be held between 19 and 24 of May 2024 in Maresias, Brazil.

Scope: Secondary ion mass spectrometry (SIMS) is at an exciting juncture with innovation in ion beams and high-resolution mass analysers with higher than ever confidence in molecule identification. The high-resolution data provides new challenges for advanced data analytics. The 101st IUVSTA workshop will provide a unique opportunity to engage the community on three themes:

- Novel mass analysers (design & applications)
- Novel ion beams (design & applications)
- Machine learning & artificial intelligence.

The workshop will include invited lectures from experts as well as panel discussion and interactive sessions to encourage collaboration and exchange. The number of delegates is limited, and the venue has been selected to provide an ideal environment for discussion.

Key dates

01/01/2024 Abstract submission opened

01/03/2024 Abstract submission deadline

15/02/2024 Registration opens

01/02/2024 – 01/04/2024 Abstract decision notifications

For more information visit:

<https://www.npl.co.uk/events/101st-iuvsta-workshop>

IUVSTA NEWS BULLETIN

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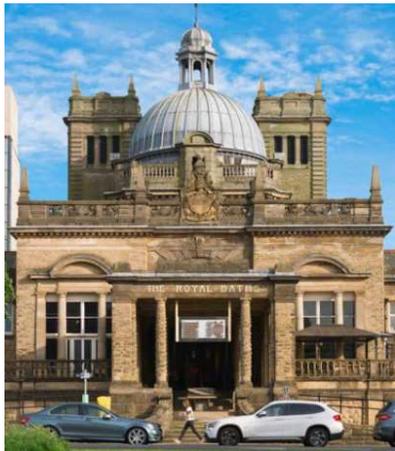


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We are pleased to invite you to participate in this joint conference that brings together:

- the 17th European Vacuum Conference (EVC-17)
- the 37th European Conference on Surface Science (ECOSS-37)
- the 13th Vacuum Symposium UK (VS-13)
- the RGA User meeting



The conference covers all IUVSTA topics:

- Applied Surface Science
- Bio Interfaces
- Electronic Materials & Processes
- Nanometer Structures
- Plasma Science & Techniques
- Surface Engineering
- Surface Science
- Thin Films
- Vacuum Science & Technology



IOP Institute of Physics

BVC

Endorsed by the International Union for Vacuum Science, Technique and Applications (IUVSTA) and the British Vacuum Council (BVC), and organised by the Institute of Physics (IoP).

Harrogate is a beautiful small town in North Yorkshire. It has many hotels, restaurants, places to visit, beautiful nature; located within 20-mins from the historical city York (a city of a long history starting from Roman time through Viking's toward modern time).

Key Deadline Dates:

Abstract submission: 03/03/2024
Early registration: 19/04/2024
Registration: 31/05/2024
Mini-Symposia submission 29/02/2024





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IOP Institute of Physics

BVC

We are pleased to invite you to participate in the 103rd IUVSTA workshop on New Horizons of NEG Thin Film Applications as a satellite program to the 17th European Vacuum Conference and the 37th European Conference on Surface Science



Scope: The workshop aims to bring together the principal researchers currently working on the development, characterisation and practical applications of non-evaporable getter (NEG) coatings and NEG coated vacuum vessels in accelerators as well as in other vacuum systems. It will also allow to discuss a few closely related problems with various surface coatings and treatment for UHV/XHV applications such as low secondary electron yield (SEY) coatings, low outgassing coating and treatments, etc. The workshop will provide an opportunity the exchange of knowledge and experience between those who study and use the vacuum properties of NEG and NEG coated vessels as well as those who prepare NEG films, surface physicists and manufacturers.



The Workshop is organised by Accelerator Science and Technology Centre (UKRI/STFC Daresbury Laboratory, UK) with support of International Union for Vacuum Science, Technique and Applications (IUVSTA) (www.iuvsta.org), Institute of Physics (IoP) (www.iop.org) and commercial sponsors.

York is the beautiful historic town in North Yorkshire, a city of a long history starting from Roman time through Viking's toward modern time, which is great for visiting. It has a large number of hotels, restaurants, places to visit, beautiful nature.

Key Deadline Dates:

Deadline for abstract submission 18th March 2024
Notification to abstract authors 31st March 2024
Deadline for early registration fee 26th April 2024

<https://iop.eventsair.com/newhorizons2024>





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Registration is open for the 100th IUVSTA workshop, Ludwigsburg, Germany, October 27-31, 2024.

Scope: A specific goal of the workshop is to nucleate and promote research and development on the implementation of the **Sustainable Development Goals** (SDGs) adopted by the United Nations in 2015 into surface engineering and thin film deposition, with a particular focus on the SDG 12 'Responsible Consumption and Production'. This IUVSTA workshop is supported by the [German Vacuum Society](https://www.dvg.de/) (DVG) and with the scope of presumably 40 to 60 participants ideally suited to foster discussions and create awareness of the economical, societal and environmental impact of vacuum process technologies, materials and products. Moreover, this workshop represents the first activity of the recently established **IUVSTA working group on sustainability**. Hence, it should provide a forum for all divisions of the Union and is expected to cause the identification of ideas, challenges and concepts within the IUVSTA communities, which will ultimately lead to reduced footprints.

The key scientific areas of the workshop are:

- Process purity
- Coating purity
- Chemically simple, but microstructurally complex coatings
- Accelerated materials design.

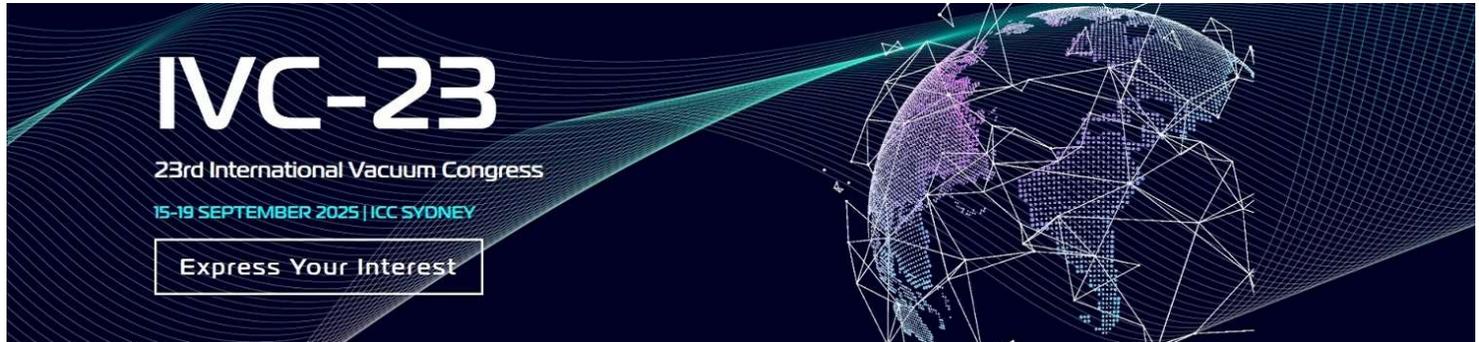
Abstracts can be submitted by email to iuvsta100@mch.rwth-aachen.de until June 7, 2024

For a **list of invited speakers** and further information visit:

<https://www.iuvsta100.rwth-aachen.de>



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From the President of the Vacuum Society of Australia (VSA)

Welcome to IVC-23

The International Vacuum Congress is IUVSTA's (the International Union of Vacuum Science, Technique, and Application) main meeting that has been held every three years (more or less) since 1959! The meeting sees around 1200-1500 participants and has a vibrant exhibition of around 80-120 vendors. It brings together the entire community of scientists, engineers, teachers, sales people, industrialists that work in areas that are connected directly with, or are heavily influenced by, the science and technology of vacuum.

The meeting has become a hub and celebration of the enabling of modern technology, from medical and food technologies and science, through to quantum computing, and space flight (for example current plasma thrusters for deep space flight). The congress can be seen therefore as the thread that pulls together some of the most important scientific developments and many of the exciting technologies being worked on in Australia and abroad.

Please subscribe to our mailing list, and/or follow this website. Don't forget to check us out on the VSA website, and our social media sites, for updates on the congress, and our VSA activities.

Dr Anton P.J. Stampfl,
President Vacuum Society of Australia
IUVSTA Scientific Secretary
Chair IVC-23, Sydney 15-19 September 2025

<https://ivc23.org/>



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2024 / 2025 IUVSTA Calendar

2024

- 101st IUVSTA Workshop on High performance SIMS instrumentation and machine learning / artificial intelligence methods for complex data.** May 19-24 2024, Maresias, Brazil
 - EVC-17, European Vacuum Conference / ECOSS-37 37th European Conference on Surface Science,** June 17-21 2024, Harrogate, UK
 - 103rd IUVSTA Workshop on New Horizons of NEG Thin Film Applications,** June 24-27 2024, satellite of EVC-17, York, UK
 - 100th IUVSTA Workshop on How sustainable are thin films and thin film processing? Pathways towards responsible surface engineering,** Oct 27-31 2024, Ludwigsburg, Germany
- ICMCTF'24,** May 19-24 2024, San Diego CA, USA
 - 2024 Spring Meeting of the European Materials Research Society (E-MRS),** May 27-31 2024, Strasbourg, France
 - 10th Symposium on Functional Coatings and Surface Engineering,** June 2-5, 2024 Montreal QC, Canada
 - PSE 2024 19th International Conference on Plasma Surface Engineering,** Sep 02-05 2024, Erfurt, Germany
 - 24th International Conference on Secondary Ion Mass Spectrometry,** Sep 8-13, 2024, La Rochelle, France
 - 2024 Fall Meeting of the European Materials Research Society (E-MRS),** Sep 16-19 2024, Warsaw, Poland
 - 12th Vacuum and Surface Science Conference of Asia and Australia (VASSCAA-12)** Oct 14-17 2024, Taipei, Taiwan
 - AVS 70th International Symposium & Exhibition,** Nov 03-08 2024, Tampa FL, USA

2025

- IVC-23, International Vacuum Congress 15-19 Sep 2025,** Sydney, Australia
- AVS 71st International Symposium & Exhibition,** 21-26 Sep 2025, Charlotte NC, USA

More information: www.iuvsta.org



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IUVSTA endorsed conference:



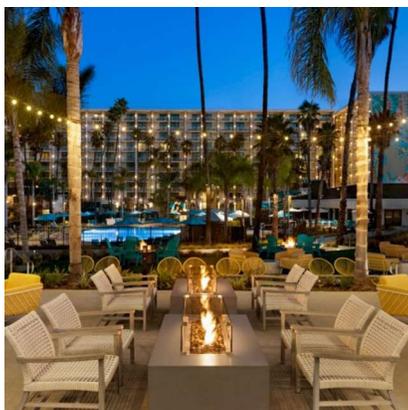
Conference Overview & Highlights

“Surface Engineering for Sustainable Development”

The 50th International Conference on Metallurgical Coatings and Thin Films (ICMCTF 2024) will be held at the Town & Country Resort, San Diego, California, USA, from May 19-24, 2024. ICMCTF is the premier international conference in the field of thin film deposition, characterization, and advanced surface engineering, promoting a global exchange of ideas and information among scientists, technologists, and manufacturers. ICMCTF 2024 technical sessions will have an overarching theme that emphasizes materials, processes, and applications relevant for sustainable development and will include a related Topical Symposium. We also hope to see many of the major leaders of the conference to mark the 50th anniversary. The Conference includes more than 90 high-profile invited speakers, in over 40 sessions, across technical symposia, plenary and keynote lectures, short courses, an awards program, and daily social networking events. A major exhibition of equipment, materials, technical literature, and new technologies is a key part of the conference. Attendees from all over the world come to present their findings, exchange ideas, share insights, make new friends, and often establish collaborations. The Conference typically draws 700 attendees. Abstracts and Awards Nominations Deadline: November 15, 2023. Watch for call for late breaking abstracts in mid-December.

Plenary Speaker: Yury Gogotsi, A.J. Drexel Nanomaterials Institute, Dept. of Materials Science and Engineering, Drexel University, USA, “Engineering 2D MXene Surfaces for Functional Films and Coatings”

Exhibit Keynote Speaker: Samuel Chiu, Senior Technical Director, Applied Materials, Taiwan and Vice Chair, IC Committee SEMI Taiwan, “Material Innovations and Challenges of Thin Films and Plasma Applications for 3 nm Node and Beyond”



Program Chair: Johanna Rosén, Linköping University, Sweden

General Chair: Jyh-Wei (Jeff) Lee, Ming Chi University of Technology, Taiwan

For information on the conference symposia and session visit: www.icmctf2024.avs.org

**Call for Late News Abstract
Deadline: February 22, 2024**



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IUVSTA endorsed conference: 10th Symposium on Functional Coatings and Surface Engineering (FCSE-2024) Montreal, QC, Canada, June 2-5, 2024.

The FCSE-2024 is organized by RQMP and the St. Lawrence Chapter of the AVS. The symposium is endorsed by IUVSTA, AVS, SVC, Prima Quebec, and is hosted by Polytechnique Montréal and Université de Montréal.

The 2024 vintage edition will particularly focus on the following themes:

- Thin films with tailored optical, mechanical, tribological, electrical, thermal and other functional properties
- Vacuum and non-vacuum deposition processes, process control and diagnostics
- Plasma processes and plasma-surface interactions
- Thin film systems for passive and active optical filters with enhanced durability
- Modeling and predictive tools for processes and coating system performance
- Protective tribological coatings with enhanced wear, scratch, abrasion, erosion, oxidation and corrosion resistance, hydro- and icephobicity and other functionalities
- Characterization methods: microstructure, composition and functional properties
- Thin film materials and systems for optical, optoelectronic, aerospace, outer-space, energy-control, biomedical, micro-system, sensor, energy and other applications
- Residual stress in films and coatings – origin, assessment and mitigation
- Surface and interface engineering approaches for the control of adhesion, stress and environmental stability
- Life cycle analysis for surface engineering solutions



The technical program consists of **invited lectures, contributed oral presentations, posters, and a table-top exhibit** with numerous networking opportunities. To acknowledge the excellence of the student posters, **three awards** will be provided by AVS, SVC and Prima Quebec.

The symposium features **two full day short courses** on “Plasma deposition” and “Stress evolution”. During the final day, the program will include **three full day hands-on workshops** focusing on

“Mechanical and tribological testing”, “Optical characterization and reverse engineering using spectroscopic ellipsometry”, and “Surface analysis”.

The deadline for abstract submission is February 14, 2024.

For more detailed information, please consult: www.fcse-montreal.ca

Symposium Chairs: **Prof. Ludvik Martinu** (ludvik.martinu@polymtl.ca)

Prof. Jolanta E. Klemberg-Sapieha (jsapieha@polymtl.ca)



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Conference organized by the French Vacuum Society



The French Vacuum Society is pleased to announce the **24th International Conference on Secondary Ion Mass Spectrometry (SIMS-24)** to be held on **September 8-13, 2024**, at the Espace Encan Conference Center in the city of La Rochelle, France.

IMPORTANT DATES

1st February 2024	Call for papers
1st February 2024	Registration opening
15 April 2024	Deadline for early bird rate
30 April 2024	Deadline for submission
15 June 2024	Authors notification
1st July 2024	Program online
31 July 2024	Deadline for regular rate
15 August 2024	Deadline posters submission

For information: <https://www.sims-24.com/>



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RBAV

Revista Brasileira de Aplicações de Vácuo

e-ISSN 1983-4047



Message from the Brazilian Vacuum Society

Pedro Nascente <nascente@ufscar.br>

Dear researchers, we would like to publicize the Brazilian Journal of Vacuum Applications (Revista Brasileira de Aplicações de Vácuo, ISSN 1983-4047), which has open access, is free of publication charge, and publishes complete papers with original results or review papers in the following themes:

- Materials Characterization;
- Surfaces and Interfaces;
- Thin Films;
- Lasers;
- Metrology;
- Optoelectronics;
- Microelectronics;
- Instrumentation;
- Space Technology;
- Vacuum Technology;
- Vacuum Metallurgy.

The journal is indexed by CAPES and receives and publishes papers in continuous flow with DOI, in either English or Portuguese. It should be mentioned that the papers are peer reviewed and are checked regarding language and format before publication.

For more information and paper submission, access the site:

<http://www.sbvacuo.org.br/rbav/index.php/rbav>



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Conference organized by the American Vacuum Society

Overview

The AVS Pacific Rim Symposium on Surfaces, Coatings and Interfaces (PacSurf 2024) will be held on the Big Island of Hawaii from December 8-12, 2024. This conference is being organized by AVS with a Steering Committee composed of representatives from Australia, Canada, China, Japan, Mexico, New Zealand, the Philippines, South Korea, Taiwan, and the United States. Symposium attendees will interact during morning and evening sessions, including plenary, invited, and contributed presentations. The main topics for PacSurf 2024 will be focused on the latest advances in **Biomaterial Surfaces and Interfaces, Nano and 2D Materials, Renewable Energy and Energy Storage, and Thin Films and Surface Modification**. We will have morning and evening technical sessions with the afternoons free for other activities and discussions.

The conference will be held in the Waikoloa Beach Marriott Resort and Spa on the Big Island of Hawaii. We are confident you will benefit by attending PacSurf 2024 and networking with the other attendees.



Abstract Submission Deadline: August 9, 2024, Opens May 15, 2024)

<https://pacsurf2024.avs.org/>



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**The 17th International Symposium on
Sputtering & Plasma Processes**

ISSP2024

A new dawn of sputtering & plasma processes
towards sustainable development

02-05 July 2024 | Kyoto, JAPAN

organized by *The Japan Society of Vacuum and Surface Science*

Abstract Submission Deadline:
~~January 19, 2024~~
Extended to February 29, 2024

Conference organized by the Japan Society of Vacuum and Surface Science

Overview

The International Symposium on Sputtering and Plasma Processes (ISSP) was established in 1991. The 1st symposium was held in Tokyo, and the main subject was “Reactive Sputtering”. It was the time, some new approaches to improve deposition rate and stability of the reactive sputtering process were started to be addressed. Since then, the symposium has been held biennially. At each symposium, the current topics and trends concerning sputtering and plasma processes have become the main focus and such topics have been discussed intensively. This time, we focus on discussion towards sustainable developments. Here are the subjected areas of ISSP2024;

- Fundamental of Sputtering and Plasma Processes
- Sputtering and Plasma Process Technologies
- Pulsed Sputtering and HiPIMS
- Fundamentals of Thin Films Growth
- Functional Thin Films and Advanced Coatings
- Applied Research and Industrial Applications

Important Deadlines

Abstract Submission: February 29th 2024

Author notifications: March 29th 2024

Early-bird Registration via website: June 7th 2024

<https://www.issp-jvss.org/>