



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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## Report on ECM 140, ACMarriott Hotel, Burgos, Spain

**Christoph Eisenmenger-Sittner (christoph.eisenmenger@ifp.tuwien.ac.at)**

The 140<sup>th</sup> Executive Council Meeting of IUVSTA (ECM 40) and the meetings associated therewith took place from Friday, September 29<sup>th</sup> to Saturday, September 30<sup>th</sup>, 2023 at the ACMarriott Hotel in Burgos, Spain. Before the formal events, like committee sessions and the session of STD, the delegates had the opportunity to attend the International Conference on Thin Films 2023 which was held at the Evolution Forum Burgos. In this excellently equipped conference center, about 170 conference delegates had the possibility to obtain information on the newest developments in the field of thin films and surfaces. For the online part of the ECM, the delegates were invited to join via a ZOOM teleconference, while on-site delegates were attending the meeting in the facilities of the ACMarriott Hotel Burgos. The President, François Reniers, started the meeting. Thereafter the Secretary General, C. Eisenmenger-Sittner in collaboration with the Recording Secretary, Ana G. Silva checked the attendance to determine the Quorum. This was confirmed to be 80%, so ECM 140 was found to be safely quorate.

In his opening statement the president François Reniers highlighted the lively discussions at ECM 139 in Brussels, which took place during the meeting and also at the visit of IMEC. He wanted to thank sincerely BELVAC, the Belgian Vacuum Society, for having sponsored this event.

Between ECM 139 and 140, the Union went back to its core business: workshops, schools, TTC, webinars. In addition, IUVSTA was also involved in the YBSSD, and the president wanted to thank the past president and Martin McCoustra for their continuous efforts in this matter. This one-year event is now transformed into a decade, and it is expected that IUVSTA to be still involved.

Since COVID, habits of people have changed, and it is challenging for colleagues and societies who take the (financial) risk of organizing meetings in general and ECMs in particular. Understanding the financial risk of organizing ECM, the Union is on the way to modifying the guidelines and suggests that, by default, all ECMs go hybrid, with the organizers not being responsible for booking hotel rooms. Also, ECMs should be linked to a scientific event. In the case that no good bid is selected, then the ECM will be fully virtual. However, we all agree that we continuously must think about the best format for scientific and IUVSTA business meetings in an always changing world.

The number of IUVSTA activities has been increasing steadily which shows the vitality of the Union which will make it necessary to diversify the income of the Union by integrating companies into the Union through a special status. This will prevent the necessity to dig into IUVSTA funds too deeply which may, in the long run, hamper the support of the scientific and educational activities of the Union.

As a conclusion, IUVSTA is in good scientific and educational health. It went over COVID, and there are pragmatic ideas for the future, and, finally through the new division on sustainability, IUVSTA will contribute to a better future for everybody.

After this positive statement of the President, the Treasurer, Arnaud Delcorte, presented the finance and budget reports for the ongoing year 2023. He highlighted the impact of the financial crisis in the IUVSTA investments between 2021 and 2022 while expecting a stable situation during 2023. Also, the status of the member society subscriptions was presented, as well as the provisional budget of 2024. Finally, the Treasurer, presented some notes on investments ending by welcoming any advice from the members. All questions from the members were clearly answered.

After the presentation of the sound finances of the Union, the Scientific Director, Katsuyuki Fukutani, reported on the meeting of the of the Scientific and Technological Directorate (STD) and also gave personal view on the tasks of STD for the current Triennium. Within the STD meeting the IUVSTA Scientific Divisions presented their activity reports, reports on



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past Workshops and Schools and the status of existing proposals. In conclusion of the STD meeting three proposals for Workshops, were presented and discussed.

All votes on the new proposals for Workshops were performed as an open vote within ECM. The proposals were:

- the Workshop entitled "High Resolution SIMS instrumentation and AI methods for complex data", to be held in Sao Paulo, Brazil, May 2024, approved as the 101<sup>st</sup> IUVSTA Workshop.
- the Workshop entitled "Ultra-clean vacuum, why, how and how to measure", Delft, Netherlands, to be held end of January or beginning of February 2025, approved as the 102<sup>nd</sup> IUVSTA Workshop.
- the Workshop entitled "New Horizons of NEG Thin Film Applications", York, United Kingdom, 24th -27th June 2024, as a satellite event to EVC-17/ECOSS-37, approved as the 103<sup>rd</sup> IUVSTA Workshop.

ECM 140 then continued with committee reports. Jay Hendricks, Chair of the Long-Range Planning Committee (LRPC) presented some several ideas concerning the future of the Union. Ivan Petrov, Chair of the Communications Committee focused his presentation on the IUVSTA website encouraging and asking to all the division chairs to update the information on their respective division's website. Carlos Tavares, Chair of the Congress Planning Committee, a list of the IUVSTA workshops, schools, conferences, and congresses planned for 2023 to 2025. Anton Stampfl, the Chair of IVC-23 presented a very detailed report on the preparation of IVC-23. Timo Gans, Chair of the Awards and Scholarships Committee, gave an overview on the several types of IUVSTA awards and scholarships: Welch Award, EBARA Award, Elsevier Travel Award, and the IUVSTA Prizes for Science and for Technology and on their current status.

Moving on in the agenda, the next item was the selection of the venue of ECM 141. One bid of the British Vacuum council was received in which it is proposed to hold ECM 141 in conjunction with EVC-17/ECOSS-37 from June 21-22 2024 in Harrogate (UK). Although this date is way between the usual time when ECMs are usually held (early spring and early fall), the bid was discussed because especially in respect to the fact that is linked to two important conferences of the Union. After the presentation of the bid by Oleg Malyshev a secret online ballot was organized by the Recording Secretary, Ana G, Silva in collaboration with the Secretary General, Christoph Eisenmenger-Sittner. The bid was accepted with a significant majority by the Executive Council. Therefore, the next hybrid ECM will be organized by the British Vacuum Council (BVC), from June 21-22 2024 in Harrogate (UK). However, to be formally able to ratify the budgets of 2023 and the proposed budget of 2024, a fully virtual ECM 141 will be held with the 9<sup>th</sup> Annual General Meeting (AGM 9) in late February/early March 2024. This fully virtual meeting will have a skeleton agenda including the discussion of proposals for Workshops, Schools, Technical Training Courses and Short Courses and AGM 9. The Meetings scheduled for 2023 will therefore be: ECM 141: fully virtual, late February/early march 2025 (the exact date will be announced in due time by the Secretary General) and ECM 142, from June 21-22 2024 in Harrogate (UK).

Within the final item of the agenda, "Any other Business", two events were unanimously endorsed by the Union, the 10<sup>th</sup> International Symposium on Functional Coatings and Surface Engineering (FCSE-2024), June 2 – June 5, Campus of the University of Montreal, Montreal, QC, Canada and the 50<sup>th</sup> International Conference on Metallurgical Coatings and Thin Films (ICMCTF 2024), May 19 – May 24, 2024 Town & Country Resort, San Diego, California; USA.

As, after these endorsement requests, there was no other competent business, the IUVSTA President, François Reniers, expressed his gratitude to all members which contribute to the success of IUVSTA and ECM 140 was closed.



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## 19th International Conference on Thin Films, Burgos, Spain, Sept. 26 - 29, 2023

The 19th International Conference on Thin Films, ICTF2023, took place at Forum Evolution congress center in Burgos, Spain, September 26th - 29th, 2023, fifty-four years after the first of this conference series held in Boston, Massachusetts, US. The conference, endorsed by the Thin Film Division of the International Union for Vacuum Science, Technique and Applications (IUVSTA), was organized by the Spanish Vacuum Society (ASEVA) as a joint event with the Iberian Vacuum and Applications Conference (RIVA).

The conference was structured as a series of topical sessions that covered many aspects related to thin film scientific research and technology. We had contributions on the following topics: Thin film growth simulation; Advanced methods for thin film growth; Advanced thin film analytical techniques; Wetting control through thin film and surface functionalization; Thin films and surfaces in biological applications; Thin films in energy harvesting and storage; Plasmonic and photonic sensors based on thin films; Protective, hard and tribological coatings; Photo-, electro-, thermo-, gas-chromic and luminescent coatings; Thin film catalysts for the energy transition; Thin films for optoelectronics, nanoelectronics, and spintronics; Organic/polymeric thin films, organic electronics; Magnetic, piezoelectric thin films; Thin film for vacuum and space applications; Beyond thin films: low dimensional materials; Industrial application of thin film technology; Thin film ices in space; Cultural heritage surface and coating analysis.

We are very grateful to our invited plenary speakers, Prof. Akhlesh Lakhtakia (Pennsylvania State University, US), Ph.D. Ana I Borrás (ICMS-CSIC, Spain), Prof. Jiri Homola (Institute of Photonics and Electronics, Czech Academy of Science, Czech Republic), and Prof. Mar García (ICMM-CSIC, Spain) for their inspiring and enthusiastic lectures on architecting thin film morphology, functional applications of nanostructured surfaces, plasmonics for label-free optical biosensing, and novel 2D freestanding materials, respectively. They strongly contribute to the scientific success of the conference sharing their knowledge on several topics that merged nowadays high-performance functional coatings, with basic thin film research.

During the conference, 17 invited keynote lectures, about 90 orals (3 parallel sessions) and 40 posters were presented, ensuring a broad and interesting scientific program for about 170 participants (31% women) from twenty-two different countries (51% from Spain). In addition, a satellite technical course was given by Prof. Sven Tougaard.

Conference funding was shared between conference fees (73%), commercial exhibition (22%) and sponsors (5%). Special thanks for the financial support generously granted by ICMM-CSIC. We also thank the Spanish association of synchrotron radiation users (AUSE) for supporting the ICTF-AUSE posters awards. We had winner poster “Langmuir-Blodgett films of plasmonic semi-shells for biomedical applications” by Alejandro Hernández Medel and four runner-up prizes “Doping impact on thermal and electrical properties of transparent ZnO and TiO<sub>2</sub> thin films for thermoelectric applications” by Joana Ribeiro “Black TiO<sub>2</sub> Integration on an IBC Silicon Wafer for Simultaneous Solar Energy and Green Hydrogen Generation” by Dennis Berends, “Computational approach to menthol – decanoic acid NADES lining 2D-materials towards CO<sub>2</sub> capture and separation purposes” by Sara

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Rozas Azcona and “Morphology, structure and chemical composition of  $\text{Cs}_3\text{Bi}_2\text{I}_9$  thin films deposited by different techniques for energy harvesting and storage” by Paola Katherine Jejen Sali.

We also thank Elsevier for financial support for travel grants to three young PhD students, Ayse Aygul Ergurhan from Eskisehir Technical University, Turkey, Kaushik Baishya from Brno University of Technology, Czech Republic and Ritu Verma, from The Czech Academy of Sciences, Czech Republic.



The organization of an ICTF conference is a challenge and takes much time and effort. We sincerely thank the International Program Committee for their valuable support identifying outstanding plenary and keynote speakers that were invited to participate in the scientific program of the conference, the Local Organizing Committee that helped setting the logistics of the event, the panel in charge of selecting the posters awards, the session chairpersons, volunteers' students helping with microphones at oral sessions, the staff people of Forum Evolution congress center, and very specially

our secretariat office lead by Ms. Analia Pérez for the work carried out with enthusiasm and competence.

Finally, we want to mention the remarkable social event linked to the conference: the guided tour to the Archaeological Sierra de Atapuerca Sites, where we learnt about the human remains of Homo Antecessor, about 800.000 years old, just before our splendid conference Dinner at the NH Collection Palacio de Burgos.

All the aspects of the conference (scientific, technical, and social) contributed to the success of ICTF2023 event and to keep alive the flame of the spirit of this conference series.

ICTF2023 Conference Chairs:

**Francisco YUBERO** ([yubero@icmse.csic.es](mailto:yubero@icmse.csic.es))

**Irene PALACIO** ([i.palacio@csic.es](mailto:i.palacio@csic.es))

*Spanish National Research Council (CSIC, Spain)*



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## Report on the 36<sup>th</sup> edition of the European Conference on Surface Science (ECOSS-36)

**Dr Maxime Le Ster** ([maxime.le.ster@fis.uni.lodz.pl](mailto:maxime.le.ster@fis.uni.lodz.pl))

The 36th edition of the European Conference on Surface Science ([ECOSS-36](#)) was held at the Vienna House by Wyndham Andel's in Łódź, Poland between Aug. 28<sup>th</sup> and Sept. 01<sup>st</sup> 2023.

This edition gathered a total of 470 participants, corresponding to an increase of 150 attendees compared to the previous edition. This number is highly encouraging, indicating that participation is now reaching levels typical of the pre-pandemic. The conference, beyond the large attendance, was a success, both on scientific and on social program terms.

The welcome reception was held on Sunday 27<sup>th</sup> of September at the Izrael Poznańki Palace, footsteps away from the conference venue. The reception was very well appreciated by the participants thanks to the wonderful architecture of the building offering a glimpse into Łódź's rich historical significance. The social program also offered guided walking tours on different themes (art, industrial history, and multicultural heritage tours) as well as a classical concert held at the Arthur Rubinstein's Philharmonic on the Tuesday 29<sup>th</sup> of August.



**Chair Pawel Kowalczyk opening ECOSS-36**



**Nobel Prize in Physics laureate (1985) Prof. Klaus von Klitzing during his plenary lecture**

Seven plenary talks were delivered during the week by world-renowned experts in the field of surface science, including the opening talk by Nobel laureate (Physics, 1985) prof. Klaus von Klitzing on Monday 28<sup>th</sup>, August. Also worth noting, the discoverer of MXenes prof. Yury Gogotsi (h-index: 219) gave an inspiring plenary lecture on the last day of the conference. In addition, 26 invited talks by leading experts in their own fields, as well as 14 mini-symposia keynote speakers and 11 mini-symposia featured speakers were given. The topics covered a large array of surface-science related themes: 2D materials, catalysis, electrochemistry, energy materials, ion-surface interactions, oxides, magnetism, and many others. One of the main additions of ECOSS-36 was the



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Lively poster session



During parallel sessions

introduction of *mini-symposia*, consisting of parallel sessions organized and catered by an expert in the field, typically focusing on more specialized surface science topics (14 mini-symposia were held, on topics ranging from surface astrochemistry to water interfaces; the complete list can be found [here](#)). There were up to 6 parallel sessions, in addition to the [PCAM school on surface science](#) also held on site. Also, "[Surface Science Toolbox 2023](#)" – an IUVSTA School on surface science techniques was organized by the Applied Surface Science Division just before ECOS-36 on 23–26 August 2023 in Poznań, Poland.



Concert at the Arthur Rubinstein's Philharmonic



Awards ceremony

This year, IUVSTA sponsored a short course given by John T. Grant, "X-ray photoelectron spectroscopy". John Grant contacted us shortly after, and unfortunately for personal reasons we could not complete the arrangement. The ECOS organization team would still like to thank IUVSTA for their financial support despite the cancellation of the short course.



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## 20<sup>th</sup> IUVSTA School on Vacuum Gas Dynamics: from Theory to Practical Applications

17-21 September 2023, Porquerolles island, France, <https://www.iuvsta-school-2023.com/>

**Irina Graur Martin, Oleg Malyshev (oleg.malyshev@stfc.ac.uk), Felix Sharipov**

The 20<sup>th</sup> IUVSTA School was organised in the framework of the IUVSTA educational program on 17-21 September 2023 in Porquerolles island. The School was designed for scientists, engineers and post-graduate students who apply rarefied/vacuum gas dynamics in their everyday work but are not experts in this field. The main objective of the School was to educate and train the participants in applying vacuum gas dynamics and also to fill the gap between the complicated theory and practical needs.

The event has been co-chaired by Prof. Felix Sharipov (Brazil), Dr. Oleg Malyshev (UK) and Prof. I. Graur Martin (France), who was also the local Organiser. The School speakers (lecturers) included the three chairs as well as Dr. Karl Jousten (Germany), Dr. Roberto Kersevan (Switzerland) and Prof. Dimitris Valougeorgis (Greece). The School was sponsored by IUVSTA and had 37 students which came from eight European countries as well as from USA and Pakistan. 17 participants are from research institutes/centers, 16 from universities and 7 from the companies/industry, so in total from 25 different organisations with most of them being Ph.D. students and vacuum scientists/engineers, while about 7 are senior engineers or group leaders. The School audience was diverse concerning the scientific background and interests of the participants in accordance with the organisers objectives. This diversity was very stimulating, triggering interesting questions to the lecturers during the sessions and coffee breaks, making however, the lectures' presentations quite challenging in order to cover all questions and needs.







## **School topics**

Totally 10 Lectures and 8 Practical Sessions were presented covering many topics in the field of Vacuum Gas Dynamics. The theoretical part was focused on kinetic theory, kinetic models, and gas-surface interaction. The modeling and simulation parts covered the Discrete Velocity method (DVM), Test Particle and Direct Simulation Monte Carlo methods (TPMC and DSMC), while the experimental part was focused on methods of measurements and standards in vacuum systems and vacuum metrology. The part related to applications was on vacuum gas dynamics in pipes, pumps, gauges, small and large vacuum systems (networks, accelerators) using Molflow software based on TPMC, numerical codes based on DSMC and discrete velocity methods as well as diffusion modeling.

An interesting part of the School was the Practical Sessions where the students were requested to solve specific problems and exercises related to the material of the lectures. These Sessions were running in-parallel in two groups supervised by two lecturers at the same time to help the students more effectively and to intensify the interaction between students and lecturers.

All material related to the Lectures and Practical Sessions had been uploaded to the School website about two weeks before its start and all registered participants had (and still have) access to it in order to better prepare themselves for all sessions. Updated versions of the Lectures and Practical Sessions have been available for downloading until the end of October 2023.

At the beginning of the event (Monday morning) a short presentation on IUVSTA was given emphasizing on the importance of IUVSTA on educational activities (schools, fellowships, etc.). The duration of all Lectures and Practical Sessions was 1 hour 15 min. with a coffee break of 30 min. between the sessions.

## **School evaluation and concluding remarks**

In the last day of the event questionnaires were delivered and filled by the students. There was a very positive reply by the vast majority of the participants being very much satisfied by the School and saying that they would recommend a similar School to their colleagues. They were also very much satisfied by the scientific level of the lectures finding them comprehensive and interesting. There were some concerns about the practical sessions saying that although they were well connected to the lectures it was difficult to follow and proposing having more time to tackle the exercises and even have some kind of “homework” with further connection with the lecturers. The participants found the 30 min. coffee breaks between the intensive sessions very helpful for discussions and relaxation. A longer duration (5 days) for a future school(s) was suggested (with a half-day on the 3<sup>rd</sup> day to recover from very intense learning).

From the lecturers’ point of view, the feedback was also very positive in spite of the diversity of the audience and the large extent of the material to be covered in short time. Overall, it is considered as a very successful school fulfilling all its objectives.



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## 93<sup>rd</sup> IUVSTA Workshop “Advances in the characterization of surface engineering structures, coatings and thin films”, 15 – 19 October 2023, Seggau, Austria

**Nina Schalk (nina.schalk@unileoben.ac.at)**

The 93<sup>rd</sup> IUVSTA Workshop, originally scheduled for 2021 but postponed due to the COVID-19 pandemic, took place at Schloss Seggau, Austria, from October 15 to 19, 2023. The aim of the workshop was to address significant advances in characterization techniques for nanostructure, composition and properties of surface engineering structures, coatings and thin films within the past decade.

The event featured 15 invited talks delivered by renowned experts in the field, covering a range of topics, including:

- Scanning and transmission electron microscopy based techniques
- In-situ/in-operando studies
- Nano-/micromechanical testing
- Synchrotron X-ray diffraction based techniques
- X-ray photoelectron spectroscopy
- Sample preparation for advanced characterization techniques
- Ion beam-based analysis
- Atom probe tomography



**Participants of the 93<sup>rd</sup> IUVSTA Workshop at Schloss Seggau, Austria**



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In addition to these invited talks, there were 12 contributed presentations, and a vibrant poster session with 15 participants that enriched the scientific program. The workshop received support from seven industrial sponsors (Oxford Instruments, Cemea, Bruker, Rigaku, Dectris, MCL Materials Center Leoben and KLA), most of whom also actively participated in the program. The workshop drew participation from 54 attendees representing nine countries: Austria, Germany, France, Switzerland, Sweden, Luxembourg, Czech Republic, Slovakia, and the USA. Throughout the event, lively discussions unfolded both during the presentations and in the breaks and evenings. Participants lauded the comprehensive overview and insights into the progress and current state of research in advanced characterization techniques for surface engineering and thin films. The workshop received such a positive response that it sparked discussions about the potential for more frequent events focused on advanced characterization techniques.

The scientific program was complemented by a social program with a castle tour and a wine tasting. The attendees had the opportunity to relish the splendid Seggau castle and its picturesque surroundings, with the early signs of autumn bringing mystical fog in the mornings and beautiful sunny afternoons.



**Nina Schalk: workshop opening and IUVSTA presentation**



**Lively poster session**



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## IUVSTA Endorsed conference:

**ICMCTF** 50<sup>th</sup>

**INTERNATIONAL CONFERENCE ON METALLURGICAL COATINGS  
& THIN FILMS | MAY 19-24, 2024, SAN DIEGO, CA**



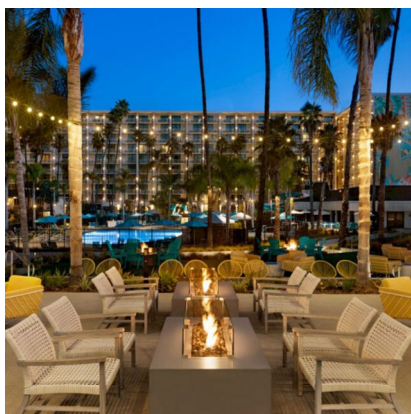
### Conference Overview & Highlights

#### “Surface Engineering for Sustainable Development”

The 50<sup>th</sup> 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](http://www.icmctf2024.avs.org)**



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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 **January 12, 2024**.

For more detailed information, please consult: [www.fcse-montreal.ca](http://www.fcse-montreal.ca)

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

**Prof. Jolanta E. Klemberg-Sapieha** ([jsapieha@polymtl.ca](mailto:jsapieha@polymtl.ca))



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Save the dates:



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/>