

Minutes of the IUVESTA STD meeting
ECM 123
Hyundai Hotel, Gyeongju, Korea
Saturday August 20th, 2016

1. Opening

The STD Director David Ruzic opened the meeting at 14:15. According to the Agenda, a short welcome was followed by the attendance, in the attachment. Note: vote has the STD Director, Scientific Secretary, Education Chair, Miran Mozetic and the 9 division chairs, 7 present in the room, means there were 10 votes possible.

2. Attendance

Members: David Ruzic, Christoph Eisenmenger-Sittner (Sec. General and TFD vice), Mariano Anderle, Lars Montelius, Jean Jacques Pireaux, Francois Reniers, Andrej Vincze, Timo Gans – PST chair, Jay Hendricks – VSTD chair, Maria Carmen Asensio – SSD vice chair, Giacomo Cecone – BID chair, Christian Teichert – NSD chair, Leszek Markowski – ASSD secretary, Ivan Petrov – SED chair, Mario Rocca – SSD vice chair, Miran Mozetic – Education chair.

Observers: Greg Exarhos, Martin Wuest, Manfred Leisch, Anouk Galtayries, Alex Shard, Stanislav Novak, Ulf Karlsson, David Sykes, Gyeun Young Yeom, Paolo Manini, Katsuyuki Fukutami, Ute Bergner, Pedro Nascente, Joe Greene, L. Bersier, Yoshio Saito, Milena Damysnova, Nikola Radic, Sidney Cohen, Janez Kovac, Joe Greene, Haining Guo, Jahvaid Ahsam Bhatti, Antonin Fejfar

3. Agenda

The agenda was adopted as proposed.

4. Approval of minutes

The Minutes from the meeting of the STD meeting held in Braga, Portugal during the ECM 122 were posted to the IUVESTA web, no remarks or comments have been received. The minutes are confirmed and the members voted in favour.

5. Divisional reports

Practically all divisional reports are about the forthcoming IVC20 organisational issues and the organisation of the elections for the new triennium. Some other issues are focusing to the conferences being organised this and the next years, consequently related to the IVC and EVC series of IUVESTA. More details are below, selected from the submitted reports to the Sci. Secretary.

APSSD, Leszek Markowszki, - Secretary of the Applied Surface Science Division of IUVESTA

IVC-20 (with ICSS-16, ICN+T 2016, VASSCAA-8, 25th KVS, ITC 2016, ISPB 2016) 22-26 August, 2016, Busan, Korea (South)

The following ASSD members have been nominated for the International Programme Committee of IVC-20: Yongsup Park (Korea) (Chair), Bonnie J. Tyler (UK) (Co-Chair, John Grant (USA), Carlos Jose Tavares (Portugal), Francois Reniers (Belgium), Leszek Markowski (Poland). The Applied Surface Science field is divided into 13 topics and include 1 Keynote and 9 Invited Speakers. The abstract submission is already closed and results in more than 130 oral and poster presentations. More IVC-20 details can be found on the IVC-20 webpage <http://www.ivc20.com/>

SIMS21 - 21st International Conference on Secondary Ion Mass Spectrometry

10-15 September 2017, Kraków, Poland

This conference is organized under the auspices of the Polish Vacuum Society and sponsored by Applied Surface Science Division and supported also by Biointerfaces, Nanometer Structures and Surface Science Divisions. All of them will vote for its endorsement of IUUVSTA. The conference will provide a forum for colleagues from both academia and industries throughout the World to exchange results and new ideas on Secondary Ion Mass Spectrometry and related techniques. The conference will cover advancements of scientific knowledge from fundamentals to applications. Organizers expect around 600 attendances from more than 30 countries from all the World. In conjunction with the Workshop the Short Course Secondary Ion Mass Spectrometry will be held.

Workshop VÁCUO 2016, September 8-10, 2016, University of Minho in Braga, Portugal

The ASSD division of SOPORVAC, Portuguese Vacuum Society, is organizing a Vacuum workshop, VACUO 2016, together with the 20th National Physics Conference. Topics will include Vacuum technology, Applied Surface Science, Thin Film deposition, among others. More details can be found on the workshop webpage: <https://eventos.spf.pt/fisica2016/pt/workshop>

The ASSD co-supported also three other submitted proposals which were already approved for funding by Executive Council Meeting and one which will be discussed and considered for IUUVSTA sponsorship during ECM123:

- **76th IUUVSTA Workshop** "Structure of ultra thin films of oxides on metal surfaces" which will be held in Avila, Spain, July 27-30, 2016 (planned in 2015 but rescheduled for 2016; ASSD is co-sponsoring together with Thin Films, Surface Science, Applied Surface Science, Nanometer Structures Division).
- **Workshop No. 80** entitled "Ultra Low Emittance Light Source Vacuum Systems", will be held in Hsinchu (Taiwan), October 24 □ 28 2016 (submitted by Taiwan Vacuum Society and sponsored by Vacuum Science and Technology Division).
- **Technical Training Course No. 18** entitled "Low Pressure Plasma Processes and Technology", will be held in Boretice, (CZ), May 30 – June 2 2016. (submitted by Czech Vacuum Society).

The short course entitled '**Secondary Ion Mass Spectrometry**' will be discussed and considered for IUUVSTA sponsorship during ECM123. This short course (organized by Jagiellonian University (Poland) under the auspices of the Polish Vacuum Society) will be organized in conjunction with the 21st International Conference on Secondary Ion Mass Spectrometry, SIMS21. It will be held on Sunday, September 9, 2017, just before the beginning of the conference. During this day 5 lectures devoted to fundamental aspects of SIMS are planned to be organized. It is expected that in this course more than 60 participants from many countries will attend. Application for IUUVSTA patronage and financial support with amount of 2 400 Euro have been applied.

Elections of the ASSD officers for the triennium 2016-2019

Applied Surface Science Division for the triennium 2016-2019 counts 29 scientist from 29 countries – 28 members of IUUVSTA and one provisional member from Bulgaria.

Chair: Leszek Markowski (Poland)

Vice Chair: Mladen Petravić (Croatia)

Secretary: Wolfgang Werner (Austria)

BID, Giacomo Ceccone, chair

In this semester the activities of the BI division concerned:

- Organization of elections for next triennium

- Attendance to EVC 14 conference
- Special volumes to appear in Biointerphases Journal
- Support for IUVESTA endorsement for BIO related workshop.

1) Organization of the elections:

- National delegates were informed of the opening of the election period. Since no volunteers expressed their interest in candidatures for the Chair, Vice-Chair and Secretary positions in the division, a candidature stemmed from the previous chairs finally integrating Portugal's representative Dmitri Petrovykh. Since the chairs were involved in the candidature, representatives were invited to send their votes directly to IUVESTA secretaries. Ballots are still to be published.

2) Follow-up of Bio topics in EVC 14 conference.

- The EVC conference included a half day symposium regarding BIO oriented topics. The session was satisfactory including biomolecular and cellular applications. The participation of students and young researchers was welcome.

Out of the symposium, there were numerous talks regarding Bio applications. To cite some of them (not exhaustive list) Bioapplications of Vacuum science and technology were mentioned from the opening plenary talk by John S Colligon (introducing aspect of biomaterials modification) to individual contributions (advanced biosensing using graphene field effect transistors by Jiri Cervenka). The outcome represents an improvement with respect to previous EVC13 but leaves still a place for progress in view of the current expansion of Bio related topics.

3) Reminder to the BID members of the call for papers on Nanoparticles Interfaces to be published as Focus Issue on the AVS journal Biointerphases. (Deadline for submission: September 1 st , 2016). Additionally, another special issue has been agreed with Biointerphases journal with contributions to the BID session at the IVC 20 in Busan.

4) On Behalf of Prof. Leszek Markowski (President of the Polish Vacuum Society), BID supported the request for the endorsement of the Workshop on Secondary Ion Mass Spectrometry (SIMS21), which is planned to be held next year in Krakow/Poland (10- 15/09/2017).

EMPD, on behalf of Ivana Capan, A. Vincze informed about the elections to the division for the next triennium with the results:

Division elections for the triennium 2016 – 2019

A)

1. Ivana Capan (Chair)
2. Detlev Grützmacher (Vice Chair)
3. Reinhard Schwarz (Secretary)

B)

1. Ivana Capan (Chair)
2. Muhammad Aslam (Vice Chair)
3. Reinhard Schwarz (Secretary)

Final results are: 10 votes for A, 4 votes for B

Activities regarding the IVC-20: Student Award Applications

NSD, Christian Teichert, chair:

The OFFICERS of the NS Division are:

Chair:	Christian Teichert, Austria
Vice-chair:	Sidney R. Cohen, Israel
Secretary:	Ana Cristina Gomes Silva, Portugal

Activities:

Workshops and Schools

- 1) All reports on 14th IUVESTA School on "**NANO – OPTICS. From principles to basic research and applications**" held from April 11 - 15 2016 at the International Iberian Nanotechnology Lab (INL) in Braga, Portugal have been submitted in due-time by the main organizer Ana Cristina Gomes Silva, Universidade Nova de Lisboa, Portugal (Secretary of NSD). The Report for STD has already been presented at ECM 122 immediately after finishing the school in Braga.
- 2) The NSD supports together with SSD the proposal for a Summer school on "Physics at Nanoscale" on June 5-10 2017 in Devet Skal, Czech Republic submitted to ECM 123 by Antonin Fejfar, Czech national representative in NSD.

International Conferences on Nanoscience + Technology (ICN+T).

3) **Future ICN+T meetings:**

i) The ICNT-2016 will be held in Busan, Korea, in Aug. 22-26 2016 as part of IVC-20. All national representatives of the NSD are involved in the steering committee (46 members). They were asked to suggest keynote and invited speakers. They selected from 61 suggestions (rather well distributed) one more keynote speaker and 37 speakers (only two female) who will present in the NS/ICN+T 2016 sessions. Finally, the steering committee members evaluated 348 abstracts submitted. So far, we do not know the number of contributed talks and posters that will be held at ICN+T-2016 in Busan. These numbers will hopefully be presented by the chair of the ICN+T steering committee, Prof. Young Kuk, Seoul National University, at the steering committee meeting to be held on August 23rd during IVC-20/ICN+T-2016 in Busan.

Due to financial and other reasons, less than 10 national representatives announced their attendance at the IVC-20/ICN+T-2016

ii) ICNT 2018 will be held in Brno, Czech Republic. The main organizers Tomas Sikola, University of Technology Brno and CEITEC, and Antonin Fejfar, Institute of Physics, Czech Academy of Sciences, Prague, will present the current status of preparation of this event at the steering committee meeting in Busan.

Date of the conference will be July 22 – 27 2018.

iii) The future of the ICN+T meetings will be discussed in the meeting in Busan. The NSD has not yet been informed by Young Kuk whether he received bids for a potential ICN+T 2020.

iv) IUVESTA-NSD informed the chair of the steering committee meeting to put on the agenda at the meeting in Busan a re-thinking about the decision of having ICN+T only every six years together with IVC. Also, we will point once more to the selection criteria for plenary and invited speakers proposed earlier by IUVESTA members in the committee and will ask for a better involvement of the committee members in the selection process.

International Vacuum Conferences (IVC).

4) **IVC-20**

International Scientific Committee Nanometer Structure Division/ICN+T 2016:

From the NSD, the following colleagues served in IVC-20 International Scientific Committee, topic Nanometer structures:

Christian Teichert, (Chair of the NSD), National Representative for Austria

Sidney Cohen, (Vice-chair of the NSD), National Representative for Israel

Ana Silva, (Secretary of the NSD), National Representative for Portugal

Hideaki Kasai, National Representative for Japan

Antonin Fejfar, National Representative for Czech Republic, he will be involved in the organization of ICN+T 2018.

Margit Zacharias, National Representative for Germany

Committee Chair: In-Whan Lyo (Korea), Co-Chair: Christian Teichert (Austria)

The committee chairs voted on student awards at the end of July.

PSTD, Timo Gans, division chair

The division has had an active and productive triennium. Summaries of activities are given in the individual divisional reports for ECM-118, ECM-119, ECM-120, ECM-121, and ECM-122. Below are some specific highlights:

- The division supported and participated in the IUVSTA sponsored 'International School on Lasers in Materials Science – Laser Engineering of Surfaces and Coatings – LESC' held in Italy 2014.
- The division developed the concept for the IUVSTA sponsored workshop on 'Sheath Phenomena in Plasma Processing of Advanced Materials' successfully held in Slovenia 2015. It was a joint workshop with the Electronic Materials and Processes Division.
- The division supported and participated in the IUVSTA sponsored workshop 'New horizons in oxynitride thin films from synthesis to applications' held in Portugal in 2015.
- The Chair of the division delivered an invited talk on 'Recent Highlights and Trends in Plasma Science and Technology' at the IUVSTA Highlight Seminar during AVS held in San Jose in 2015.
- The division supported and organised the IUVSTA sponsored Technical Training Course on 'Low Pressure Plasma Processes and Technology' held in Czechia in 2016.

An important part of activity has also been the preparation of the divisional programme for the IVC-20 in Korea. Details of the final programme are available at http://www.ivc20.com/sub02_1.php.

SED, Ivan Petrov, division chair, informed about:

Main Activities of IUVSTA-SED

- Active email discussion among all SED members
- Meeting of SED members at several conferences (AVS, ICMCTF, ICTF)
- Organizing IUVSTA workshops
- Organizing IUVSTA schools
- Putting together the Surface Engineering Program at IVC-20

SED Program Committee for IVC-20

Ivan Petrov [petrov@illinois.edu] - chair

Jeon Geon Han [hanjg5445@gmail.com] - co-chair

Javier Barriga [javier.barriga@tekniker.es]

Eiji Kusano [kusano@neptune.kanazawa-it.ac.jp]

Jörg Patscheider [Joerg.Patscheider@empa.ch]

Kostas Sarakinos [kostas@ifm.liu.se]

Peter Schaaf [peter.schaaf@tu-ilmeneau.de]

SSD, Maria Carmen Asensio, division chair informed about the IVC 20 programme, and the proposals evaluation for the STD part of the ECM 123.

TFD, Andrej Vincze on behalf of A. Tagliaferro informed about the upcoming events, the ICTF 2017, which will be held in New Delhi, India in November 2017 and about the IVC 20 program, which includes also the TFD.

Quote from the delivered TFD report:

1. Elections

- *For the triennium 2013-2016*, the election procedure was initiated with a call to the country representatives to submit their vote. This call was repeated twice. 15 (out of 25 votes) were received. All members supported the candidacy of the-chair (A. Tagliaferro) and the secretary (D. Depla) of the previous triennium (2010-2013) to continue their function. For the vicechair, there were two candidates (P. Hovsepian and A. Maqsood). P. Hovsepian was elected. An overview of the members in 2013-2016 is given the end of the report.
- *For the triennium 2016-2019*, the election procedure was started with a call for representatives. D. Depla expressed his interest to continue his function as secretary. Two candidacies were received for chair (or alternatively vice-chair) : F. Frascassi (It.) and P. Hovsepian (GB.). 18 (out of the 27 votes) were received. The members supported the candidacy of the secretary (D. Depla) to continue his function. Both colleagues interested in the function as chair received the same number of votes (9). After a short discussion among F. Frascassi, P.Hovsepian and D. Depla, F. Frascassi was proposed to become chair of the TFD, and P. Hovsepian vice-chair. The TFD agreed with this proposal.

2. International conference of Thin Films (ICTF)

In November 28th 2013 the vacuum societies, represented by the TFD members, were invited to bid for the venue of ICTF-17. One bid was received by the Indian Vacuum Society(IVS) (representative Dr. Aswal) on January 30th 2014. After distribution of the bid by the IVS, the division members were invited to comment on the bid. Based on the input of the division members the secretary of the TFD sent on April 25th 2014 a list with questions. The response of the IVS was received May 1st 2014. The response was distributed among the division members with the request, if needed, to comment it. No further comments were received. The voting procedure was initiated on May 6th 2014. As the number of responses was too low to make a final decision, the call for votes was repeated on June 4th 2014. 15 votes (of 26 possible votes were received). Three email addresses didn't function anymore.

Thirteen members approved the bid, two members abstained. Based on this outcome, the TFD officially informed the IVS that the bid was approved. The IUVSTA general secretary was informed, and on July 28th 2014 the general secretary sent a conformation letter to Dr. Aswal, representative of the IVS. The conference general Chairman is Dr. Arwal. Initially the BARC (Mumbai) was suggested as venue. However, for practical reasons it was agreed to change the venue to NPL in Delhi. The conference will take place mid November 2017 (13-17 November). A meeting was organized on 21 March 2016.

VSTD, Jay Hendricks, division chair

Quote form the VSTD report delivered by J. Hendricks

Due to changes and reorganization of the divisional structures of IUVSTA, VSTD is now a larger committee currently consisting of 28 members and representing 28 countries! As chair, I welcomed this change and invited more participants into the work that we do as a committee, and engage a wider audience from which we draw new ideas for VSTD.

VSTD has developed goals for the next triennium been defined and were circulated to the members. Goals for the triennium included:

- Serve as an international communication “hub” that connects vacuum science and technology scientists around the world.
- Program development of IVC-20 VSTD (Busan, Korea 2016).
- Organize call for European Vacuum Conferences (EVC) proposals and selection.
- Organize call for Workshops in Vacuum Technology.
- Organize call for education and Schools in Vacuum Technology.

6 and 7. Proposals of Workshops and School, approval

WS 1	SurfCat: From Surface Science to Green Catalysis	Santa Margherita Ligure/ Italy	April 9 -12, 2017	Mario Rocca
WS 2	Novel smart materials with applications in health and energy	Buenos Aires/Argentina	Oct 22 - 25, 2017	M. C. Asensio
WS 3	IUVSTA Workshop on Response of biological materials to plasma treated medium	Rogla/Slovenia	March 12 - 16, 2017	T. Gans/ M. Mozetic

The STD director D. Ruzic shortly introduced the proposals to the STD. The WS 2 proposal were suggested to move to the discussion of the ECM 125 in Slovenia, because it is planned to happen in next year, so the discussion in March 2017, should be sufficient.

As the first the WS 1 proposal were presented by M. Rocca, and after the presentation the STD members and other observers asked about WS details, financing and invited speakers selection.

Similarly the WS 3 was presented by T. Gans and M. Mozetic, again with discussion about the financing and possible impact.

The STD director suggested to have also the School proposal presentation, which was presented by A. Fejfar. The discussion was oriented to the school location, financing.

The voting was realized by secret voting, 7 division representatives and the Educational committee chair and the STD director and Scientific Secretary has votes (10 votes).

The ballots were counted by the Secretary General, and the results are the following:

WS 1, Italy	3 supportive and 7 abstain vote
WS 3, Slovenia	10 supportive and 0 abstain vote
Sch 1, Czech Republic	10 supportive and 0 abstain vote

According the results the STD will propose a IUVSTA Workshop on Response of biological materials to plasma treated medium to be held in Rogla, Slovenia to the ECM 123 for final approval as the 81st IUVSTA workshop.

School proposal of Czech republic, yes 10 votes, no against and no abstention, so the proposal will hold the number 16, and will be the 16th IUVSTA school.

The 16th IUVSTA school is proposed to be the school in Devet Skal in Czech republic in June 5 – 10, 2017 proposed by A. Fejfar with the title IUVSTA International Summer School on Physics at Nanoscale.

According the results the STD will propose the school for International Summer School on Physics at Nanoscale to be held in Devet Skal in Czech republic to the ECM 123 for final approval as the 16th IUVSTA school.

The Short course entitled Secondary Ion Mass Spectrometry, was discussed and recommended to the STD by the Education Committee previously to be supported by 2500 Eur.

8. Endorsement requests

SIMS 21	Krakow/Poland	September 10 - 15, 2017	L. Markowski
ITFPC 2017	Nancy/France	October 23-27, 2017	A. Galtayries
Simdalee 2017	Pula, Sardinia/Italy	September 2017	Ch. Eisenmenger-Sittner

Endorsements were given after a short presentations and introductions for all.

9. Any other business

No requests.

10. Closing remarks

The chair D. Ruzic closed the STD 17.42 local time.

Motion to Adjourn

Recorded by A. Vincze, Scientific Secretary, August 20, 2016