Minutes of the IUVSTA STD meeting ECM 126 Expo Hotel, Sofia, Bulgaria Saturday September 30, 2017

1. Opening

The STD Director David Ruzic opened the meeting at 14:30. According to the Agenda, a short welcome was followed by the attendance, in the attachment. Note: vote are present by the STD Director, Scientific Secretary, Education Chair, Miran Mozetic and the 9 division chairs, from which 7 are present in the room, so 10 votes are possible.

2. Attendance

Members: David Ruzic, Christoph Eisenmenger-Sittner (Sec. General), Mariano Anderle, Lars Montelius, Anouk Galtayries, Francois Reniers, Andrej Vincze, Deborah O'Connell (rec. secretary), Leszek Markowski - ASSD, Ana Silva – NSD chair, Deborah O'Connell – PSTD chair, Ivan Petrov – SED chair, Fumio Komori – SSD vice chair, Francesco Fracassi – TFD chair, Jay Hendricks – VSTD chair, and Miran Mozetic – Education Committee chair.

Observers: Joe Greene, Anton Stampfl, Jörg Patschneider, Daniel Verniere, Sylvie Bourgeois, Maja Buljan, Enrico Maccallini, Haining Guo, Francesco Tabares, Martin Wuest, Manfred Leisch, Katsuyuki Fukutami, Gyeun Young Yeom, Marceli Juni Ferreira, Timo Gans, Par Omling, Ute Bergner, Dietrich Zahn.

3. Agenda

The agenda was adopted as proposed.

4. Approval of minutes

The Minutes from the meeting of the STD meeting held in Rogla, Slovenia during the ECM 125 were posted to the IUVSTA web, no remarks or comments have been received. The minutes are confirmed and the members voted in favour.

5. Divisional reports

APSSD, Leszek Markowszki, - Chair

1. SIMS21 - 21st International Conference on Secondary Ion Mass Spectrometry, 10-15 September 2017, Kraków, Poland (http://sims.confer.uj.edu.pl/)

This conference was supported by IUVSTA and the Polish Vacuum Society and sponsored by the Applied Surface Science Division, and also supported by others IUVSTA Divisions (Biointerfaces, Nanometer Structures and Surface Science). Was fully successful and collected over 400 participants. One day before the conference (on Sunday, September 9, 2017) a IUVSTA Short Course was also organized (entitled: "Short course for new ideas on Secondary Ion Mass Spectrometry and related analytical techniques"). The course was devoted to recent advances and details of operation of Secondary Ion Mass Spectrometry. The language of the course was English. Each tutorial lasted 80 minutes and consisted of a general presentation (no more than 50 minutes) followed by, or interwoven with extended discussion (at least 30 minutes). Top notch experts presented their lectures (1. Alex Shard, National Physical Laboratory, England - "The meaning of SIMS and how to collect useful data"; 2. Arnaud Delcorte, Université de Louvain, Belgium - "SIMS: Understanding the impact"; 3. Daniel J. Graham, University of Washington, USA - Digesting the Alphabet Soup of Multivariate Analysis"; 4. Birgit Hagenhoff, TASCON, Germany - "Mastering the Art of Sample Preparation"; 5. Fred Stevie, North Carolina State

University, USA - "Depth Profiling") to teach about details of operation of the technique itself as well as about currently hottest subjects of SIMS. The IUVSTA financial support related to this course has been given with amount of 2 400 Euro (10 352.4 PLN at the moment of money transfer arrival at the conference account - 28.02.2017). All expenses were done in this currency. Among 74 attendants 27 young persons were support by a regular amount of 300 PLN and in the case of five participants, who were not able to pay any fee, a full short course fee was covered from the IUVSTA Grant (450 PLN). Additionally, the Organizers have also sponsored participation of two next participants.

2. VACUO 2017 Workshop, July 21, 2017, Instituto Pedro Nunes, Coimbra, Portugal

The VACUO 2017 Workshop, organized by SOPROVAC, aims to bring together national and international experts in a more intimate meeting that promotes discussion on deposition, materials synthesis and characterization techniques using vacuum technologies. The 2017 edition was held on July 21, at the Pedro Nunes Institute, organized by the Laboratory of Tests, Wear and Materials (LED & Mat-IPN) in collaboration with SOPORVAC. The topics of the Workshop have been focused on functional coatings for the industry, with applications in the field of solar, automotive, decorative, biomedical, vacuum technology, and fundamental research. The program consisted exclusively of 8 invited talks regarding applied surface science, thin films, vacuum technology and applications. 45 people were present and the workshop was a success. This event was posted on the SOPORVAC

website: www.soporvac.pt

New events

1. 10-th Symposium on Vacuum based Science and Technology, November 28-30, 2017, in Kolobrzeg, Poland (http://svbst.tu.koszalin.pl)

The Symposium already traditionally offers a forum for presentation of recent research results and discussion on topics related to vacuum based science and technology. Within the scope of the Symposium are:

- * Plasma physics and techniques
- * Vacuum science and techniques
- * Protective coatings and thin films
- * Characterization of surfaces and thin films
- * Thin films for solar cells and sensors
- * Plasma based surface treatment technologies

* New trends and concepts in plasma based deposition processes - HiPIMS technology 100 attendances are expected. Also manufacturers and sales companies offering vacuum equipment, measurement and control systems as well as components for vacuum based science and technology were invited to exhibit their products and promotion materials at the Symposium. Two IUVSTA Officers are invited speakers: prof. Joseph E. Greene and prof. Ivan Petrov. Also during Symposium a short presentation of IUVSTA will be given by prof. Lars Montelius -IUVSTA President or by prof. Anouk Galtayries - IUVSTA President-elect.

2. The ASSD co-support (together with Nanometer Structures, Thin Films and Surface Science divisions) an IUVSTA Workshop "Nanoscale Oxides systems in Physics and Chemistry" which will be held in Ávila, Spain (July 1-5, 2018).

3. Twentieth International Summer School on Vacuum, Electron and Ion Technologies (VEIT 2017), 25 – 29 September 2017, Sozopol, Bulgaria

The 2017 edition of The International Summer School on Vacuum, Electron and Ion Technologies (VEIT) is the 20th in a series of events organized with the aim to act as a forum for

interchange and dissemination of knowledge and ideas on the latest developments in electron-, ion- and plasma-assisted technologies. It is a major scientific event and a meeting place for young scientists and distinguished speakers and experts from around the world focusing on the state-ofthe-art scientific developments with emphasis on both the physics and the engineering aspects of these technologies which have become important research tools and production processes. The topics of the school include:

*Thin films deposition

*Surfaces and thin films processing and analysis

*Coatings for advanced applications

*Plasma-surface interaction and plasma diagnostics

*Modeling and computer simulation.

The scientific program will include 3 tutorial topic reviews, 4 topic lectures and 25 progress reports. Contributed papers are also solicited and will be presented mainly in 3 poster sessions and 12 oral presentations. VEIT 2017 is jointly organised by: Institute of Electronics, Bulgarian Academy of Sciences, Sofia, Bulgaria Dutch Institute for Fundamental Energy Research (DIFFER), Eindhoven, The Netherlands.

4. The ASSD co-support also proposal of IUVSTA Workshop on "Nanoporous materials for green energy conversion and storage", which will be submitted by the IUVSTA Surface Engineering Division. The workshop is planned to be held in Austria in fall 2018.

BID, Miguel Manso, chair, Anouk Galtayries

In this semester the activities of the BI division concerned:

- Resubmission of a COST proposal

- Elaboration of a first draft for a Workshop proposal

- Organization of the Biointerfaces session at RIVA-X

- Other minor activities.

1) Resubmission of a COST proposal:

- A new proposal for a COST action has been submitted to ERC. The new proposal narrowed the topic concerned by the action to the use of plasmas, ion beams and neutralized particles in vacuum to therapeutic or diagnostic biomedical applications, whether in direct applications or through the modification of materials or support to fabrication of devices. Further inputs consisted in the reinforcement of vincula with biomedical institutions and the industrial sector. The outcome of the evaluation is expected for April 2018.

2) Elaboration of a first draft for a Workshop proposal.

- The BID has been working through its vice-chair Giacomo Ceccone in the preparation of a proposal for an IUVSTA WORKSHOP. It will concern the preparation of biological samples for their observation/analysis in vacuum equipment. It will be chaired by Paulina Rakowska(NPL, UK) and take place in Poland. The Workshop proposal is now finalized but needs smalladjustments from the budget point of view (financial losses). For this reason, it will be submitted for the next ECM meeting. 3) The chair of BID has collaborated in the organization of the RIVA-X conference and in particular in the promotion of the Biointerfaces session. The final program counts with one invited talk and 6 contributed talks in a monographic session. Additional efforts have been granted to finding funding for prizes. Best poster funding has been provided by MecWins and best oral presentation by the AVS journal Biointerfaces.

4) a.The BID supports the organization of the School on Nanophotonics submitted by the Nanometer Structures Division.Potential speakers for a Nanobiophotonics session in this school were suggested.b. The BID has also confirmed the will to contribute to proposing names of potential invited/keynotelecturers for the next IVC. c. BID has submitted the reviewed biointerfaces section for the IUVSTA vision article.

EMPD, Ivana Capan, chair, Andy on behalf of her

- 1) Very active (e-mail) discussions regarding the IUVSTA endorsement requests
- 2) Activities about IVC-21, 2019; Program Committee

NSD, Ana Silva, chair:

Workshops/Conferences/Schools

Ana G. Silva, Chair of NDS division, will propose an IUVSTA International School on "Nano-Optics" to be held in February 18-22, 2019, in International Iberian Nanotechnology Laboratory (INL), Braga, Portugal, http://inl.int/. The school will be presented in ECM 126, in Sofia, by Ana G Silva, chair of NSD division. The Organizing Committee will be Christian Teichert (vice-chair of NSD division), Jana B Nieder (local organizer) and José Ferreira (of SOPORVAC). The scientific committee will be Lars Montelius (General Director of INL) and Sidney Cohen (Secretary of NSD division. National representative members of NSD division will be invited to the Scientific Committee. The School is sponsored by the IUVSTA Surface Science division (SSD) and Bio-Interfaces division (BID).

The Israel Vacuum Society holds the IVS 35th Annual Conference & Workshop this year on Sep. 10 and workshop on Sep 11 with session devoted to Nano http://www.ivs.org.il/Meetings-and-workshops-35th Nanomaterials: Advanced Fabrication and Characterization. Nanoelectronics and Spintronics. In addition, several sessions have a strong nano-component to them, including: energy and sustainability, photonics and plasmonics, ALD and ALE, surface doping, surface characterization tools and organic monolayers.

Regarding the workshop on "Surface Micro-Spectroscopy and Spectro-Microscopy: Nano-Characterization of Electronic Interfaces and Related Transport Phenomena", to be held 2nd - 5th September 2018 and followed by a one-day general symposium of the Israel Vacuum Society, on Thursday, organized by Sidney Cohen from Weizmann Institute, Israel, the initial invited speakers have been secured for the workshop. Together with the conference unit at the Weizmann Institute, the local arrangements have been made, and the official website will open in early fall.

Ryszard Czajka member of NSD division, national representative of Polish Vacuum Society, his organizing the IWAN 13th (Interregional Workshop on Advanced Nanomaterials) http://iwan13.put.poznan.pl/ to be held on 15-16 November 2017 in Poznan, Poland, under auspices of Polish Vacuum Society.

SCIENTIFIC SPONSORING

1) The NSD division sponsors the Workshop on "Nanoscale Oxides systems in Physics and Chemistry" proposed by the Spanish Vacuum Society (ASEVA), to be held in July 1-5, 2018 in Ávila, Spain the chair of the proposed workshop is Geoff Thornton of University College of London (UCL).

2) The NSD division sponsors the Short Course on "Nano-Bioengineering for Medicine" proposed by Bruno Silva from International Iberian Nanotechnology Laboratory (INL) http://inl.int/ to be held in May 7-18, 2018 in Braga, Portugal. The course will be presented in ECM 126, in Sofia, by Ana G Silva, chair of NSD division.

International Conferences

ICN+T 2018

ICNT 2018 will be held in Brno, Czech Republic. The main organizers are Tomáš Šikola, University of Technology Brno and CEITEC, and Antonín Fejfar, Institute of Physics, Czech Academy of Sciences, Prague, date of the conference will be July 22 - 27 2018. Regarding ICNT + 2018 organization, Tomas Sikola reports that the company selected for the congress management, C-IN (www.c-in.eu), has already prepared the web pages of the conference with their assistance. At the same time the work on defining the program committee will start. It is planned to select the plenary/key lecturers by September, most of invited speakers by November.

IVC-21

NSD division circulated within the NSD member societies asking for suggestions regarding invited and plenary speakers to be suggest to organizers of IVC-21.

Education

NSD division supports and announced the IUVSTA webinars, promoted by Anouk Galtayries, through different research institutions, Universities and within IUVSTA.

Other Activities

Yves Huttel, member of NSD division, national representative of Spain, Institute de Ciencia de Materials de Madrid, has been elaborating a national list of groups in Nanometer Structures in Spain. The list is already significantly long and can be made public upon request.

Ana G Silva, chair of NSD division, was visiting Faculty of Technical Physics from Poznan University of Technology, in May this year, by invitation of Ryszard Czajka member of NSD division, national representative of Polish Vacuum Society.

PSTD, Deborah O'Connell, division chair

Satoshi Hamaguchi, Osaka University, is organizing an IUVSTA funded workshop on 'Plasmabased Atomic Layer Processes', to be held in December 2017, in Okinawa, Japan. All details can be found on the conference website

http://officepolaris.co.jp/JSPP2017/IUVSTA17Workshop/. Organization is going very well. Early registration deadline is October 6th 2017.

The 20th International Summer School on Vacuum, Electron, and Ion Technologies (VEIT 2017) was held just before this meeting in Sozopol, Bulgaria from 25th – 29th September 2017.

The Spanish Vacuum Society and the Portuguese Vacuum Society are organizing a joint meeting of the 'Iberian Vacuum Conference, RIVA' between October 4th and 6th 2017 in Spain (http://asevaconferences.com).

The 11th Asian-European International Conference on Plasma Surface Engineering (AEPSE 2017) was held in September 2017, in Jeju Island, Republic of Korea (<u>http://www.aepse2017.org</u>).

The Central European Symposium on Plasma Chemistry (CESPC) was held from September 3rd to 7th 2017 in Sveti Martin, Croatia (http://cespc7.org).

There will be an AVS Focus Topic on 'Plasmas Processing for Biomedical Applications' at this years AVS in Tampa, Florida in October 29th to November 3rd 2017. This Focus Topic will also continue at next years AVS in Long Beach, California, October 21-26, 2018.

JVST A are accepting articles for a 'Special Issue: Atmospheric Pressure Plasmas: Chemistry & Material Interactions', with a deadline on January 22nd 2018. (<u>http://avs.scitation.org/pbassets/</u>files/publications/jva/JVSTA_Flyer_Special_Issue_APPCMI.pdf).

SED, Ivan Petrov, division chair

The division is working on 83rd and 95th IUVSTA workshops both in September 2018, and will be presented the details on the preparations of the workshop.

Thank to the early start of the Swedish hosts of IVC21 our division is in active discussions on our program for IVC 21.

SSD, F. Komori division vice chair

The main involvement of the SSD during this last semester is associated to the ECOSS scientific meeting. This was the 33rd edition of this well know Surface Science European Conference held between 27th August and 1st September / 2017 in Szeged, Hungary. The meeting was very convivial and quite high scientific level with 357 participants from 29 countries attended the 33rd ECOSS conference and enjoyed the excellent presentations and meaningful discussions. The six-day program covered 314 presentations including 7 plenary, 28 invited and 5 keynote lectures, moreover, 177 oral talks divided in 5 parallel sessions and 97 posters organized in two sessions. More details can be found in the enclosed report of the meeting prepared by Prof. András Berkó, Chair ECOSS-33 MTA-SZTE RKFK Research Group of the Szeged University.

The SSD is also keep in close contact to the chairs in charge of the next VASCAA and IVC conferences.

Finally, the SSD has partially participated in still informal discussions together with the IUVSTA Educational Committee in order to organize in the near future Short courses and Schools in countries not related yet to the IUVSTA.

TFD, Francesco Fracassi, div. chair

The report was focused to the ICTF17, which was organized as the main event of this division. Confirmed speakers as 83 persons were confirmed for 17th International conference on thin films (ICTF-17 under following categories:

- Key note Speaker: 1 (Speaker: Prof. David Cahen)
- Evening Lecture: 1 (Speaker: Prof. K.L. Chopra)

• Plenary Speakers: 4 (Speakers: Prof. Ivan Schuller, Prof. Ronan McGrath, Prof. S.B. Krupanidhi and Prof. Norbert Koch)

• Invited Speakers: 77 (as per list given on conference website www.ictf2017.in) Talk schedule:

- Key note talk will be held in inaugural function on November 14, 2017
- Evening Lecture will be held on November 15, 2017
- Plenary talk will be held in the morning session of all four days (November 14-17, 2017).

• Invited talk will be delivered by speakers in four parallel sessions on all four days starting from November 14, 2017 to November 17, 2017.

Abstract received 350 (+) abstracts for oral and poster presentations.

Review of these abstracts were carried out considering originality of the work, scientific merit, clarity of presentation, conclusion adequately supported by data etc.

- Oral Presentation: 98 (uniformly distributed across the theme)
- Poster: 246 (two sessions, on November 14 & 16, 2017)

Invited talks and oral presentations are distributed among following 10 Nos. of sub-themes: Sub-theme Name

- Theme 1 Metrology & Measurement
- Theme 2 Growth & Modeling
- Theme 3 Composite & Multilayer
- Theme 4 Nano-structured
- Theme 5 Materials
- Theme 6 Organic & Carbon
- Theme 7 Magnetic
- Theme 8 Opto and Nano-electronics
- Theme 9 Solar Cell
- Theme 10 Applications

Short courses:

- There will following two conference workshops on November 13, 2017:
- (1) Thin Films & Coating Technology: Science and Industry
- (2) Thin film solar cells

200 Nos. participants are expected (100 each)

In addition Springer author workshop for Ph.D students is arranged on November 17, 2017.

Abstract book

Short abstract book will be printed & extended abstract will be published by IVS

Conference Proceedings

Peer reviewed conference papers will be published in special issues of

1. Elsevier - "Vacuum"

2. AVS - "Journal of Vacuum Science & Technology B" (JVST B)

3. Springer conference proceedings as book volume(s) [selected papers of plenary/invited speaker]

VSTD, Jay Hendricks, division chair

The last six months have seen much activity with the final stages of EVC15 program planning being completed and the call for abstracts being launched. EVC15 program will highlight a special session on IUVSTA turning 60. The program planning for IVC21 is ramping up, with the formation of the vacuum science and technology division developing its committee, planning session calls and selection of invited speakers being completed this fall. The committee will also be looking for potential short course offerings that will accompany IVC21 that have a vacuum technology focus. By Oct. 15th 2017, a session call list for IVC21 will be uploaded along with suggested invited speakers. A call is being made for any new and emerging technologies in VST to create new sessions. Progress has been made on paper based on the last highlight seminar series with it currently being reviewed at NIST. VST continues to call for and accept applications for workshops, schools, and technical training. For the current six-month period, no new applications were received. These workshops and schools offer a terrific opportunity for member nations to engage with IUVSTA and applications will continue to be sought. Our VST group continues to be active in ISO and national standards. Jay Hendricks was appointed to the AVS recommended practices committee for AVS. This give an opportunity to work across the ISO, ASTM and National Metrology Institute (NMI) standards. Recent activity in ISO is Nov 28 there will be a joint meeting with the European project EMPIR 16NRM05 "Ion Gauge". This project is performing research towards development of an ionization gauge suitable to be standardized. The meeting will take place at PTB in Berlin Germany, Nov. 28th. The 5th international CCM meeting was held in Pereira Colombia in May 2017. The highlighted new technology was methods of realizing the pascal using optical methods. The Quantum SI is a big push at NMI's especially NIST and workshop is being held at the BIPM to coordinate world efforts in development in this fast moving area. This concludes the executive summary of the report.

6. Reports on the WS and Schools held before the ECM126, short reports were mentioned in the frame of the division reports.

7. Proposals of Workshops and School, approval

The STD director D. Ruzic shortly introduced the current situation (already decided during the previous ECM) of the WS and Schools, as they appear in the IUVSTA web.

The new proposals, which were delivered to the Scientific Secretary was introduced to the STD. All proposals were suggested to present and then vote in one round with secret ballots.

As the first, the WS proposal to be held in Avila, Spain with a title Nanoscale Oxides systems in Physics and Chemistry to be held in July 1-5, 2018 was presented by F. Tabares. After the presentation the STD members and other observers asked about WS details, financing and information about the costs of the accommodation in the conference place, and also the financial budget was shown and explained by F. Tabares. The Ws proposal requests 6000 eur IUVSTA support. Despite the communication to the presenting person and the proposer prof de Segovia the presentation was not really easy to accept.

As a second, A. Silva the proposed School was introduced. The Nano-Optics school should take place in Braga, Portugal to be held in February 18 - 22, 2019. As a school, it might be the same title, what is our case. The scientific content is clear, financing were presented and this proposal requests 6000 eur IUVSTA support.

The third proposal for presentation is the School, which was moved from Short course/Education Committee to the STD. This School with a title Nano-BioEngineering for Medicine to be held in Braga, Portugal in May 2-5, 2018 and then continues by May 7-18, 2018 with hands on and training at the INL. After the presentation a discussion was formed. The comments from the BID were concern of adding to the organizing committee members from BID. The length of the short course was discussed. The BI as division was not informed about the proposal, and also because the topics are very close to the BI Division, should be essentially a co/organizer.

The voting was conducted by secret ballot, 7 division representatives and the Educational committee chair and the STD director and Scientific Secretary have votes (10 votes in total).

The ballots were counted by the STD Director and STD Scientific Secretary, and the results are the following:

WS in Avila, Spain School in Braga, Portugal in 2019 School in Braga, Portugal in 2018 7 supportive, 3 against and 0 abstain vote 10 supportive, 0 against and 0 abstain vote 6 supportive, 3 against and 1 abstain vote

For continue the numbering, the Scientific Secretary suggest a chronological order for the schools:

According the results the STD will propose a IUVSTA Workshop on Nanoscale Oxides systems in Physics and Chemistry to be held in Avila, Spain in July 1-5, 2018 to the ECM 126 for final approval as the 86th IUVSTA workshop with financial support of 6000 EUR.

WS in Avila, Spain

7 supportive, 3 against and 0 abstain vote

According the results the STD will propose a IUVSTA School with title Nano-Bio Engineering for Medicine to be held in Braga, Portugal in May 2-5, 2018 and then continues by May 7-18, 2018 with hands on and training to ECM 126 for final approval as the 17th IUVSTA school with financial support of 2000 EUR

School, Braga/PT in 2018

6 supportive, 3 against and 1 abstain vote

According the results the STD will propose a IUVSTA Nano-Optics school which should take place in Braga, Portugal to be held in February 18 - 22, 2019 to ECM 126 for final approval as the 18th IUVSTA school with financial support of 6000 EUR

School Braga/PT 2019

10 supportive, 0against and 0 abstain vote

Regarding the reporting to be done after a workshop, a new system with an online form was suggested, the IUVSTA president will suggest the questions to be answered, and should be done with the reports too. To help with this, a model scientific report will be distributed as an example. It will be from a WS in 2008, on HIPMIS written by J. Colligon.

8. Endorsement requests

3 endorsments requests were discussed shortly and as a package were accepted.

JVC 17 Olomouc 2018, CZ, as a part of the traditional endorsed conferences by IUVSTA

IWAN13 2017 Poland, <u>http://iwan13.put.poznan.pl/</u> 13th Interregional Workshop on Advanced Nanomaterials, (IWAN13).

The IWAN is an informal meeting of scientists mainly from institutions located in Poland, Germany and Czech Republic working in the fields of advanced nanomaterials, and in general, in the field of nanoscience and nanotechnology.

The workshop provides a unique opportunity to set up collaborations for research and education, benefiting in short distances between partners and making thus optimal use of available infrastructures in the area. It also represents the good opportunity for the students to present their own oral contributions in front of international scientific forum.

Symposium on Vacuum Based Science and Technology, 28-30 Nov 2017 Kolobrzeg, Poland

The **10th Symposium on Vacuum based Science and Technology** is organized by the <u>Faculty of Technology and Education</u> and <u>Koszalin University of Technology</u> under auspices of the <u>International Union for Vacuum Science</u>, <u>Technique and Applications</u>, <u>Polish Vacuum Society</u>, <u>German Vacuum Society</u>, <u>Clausius Tower Society</u> and in collaboration with the <u>BalticNet PlasmaTec</u>.

The mission of the Symposium is to provide a forum for presentation and exchange of research results and expertise in the field of vacuum and plasma science.

After already nine successful meetings organized alternately in Poland and Germany our goal is to continue and foster cooperation within the vacuum and plasma science community.

The symposium topics will be addressed by invited lectures of internationally recognized scientists.

Conference Topics

- Plasma physics and techniques
- Vacuum science and techniques
- Protective coatings and thin films
- Characterization of surfaces and thin films
- Thin films for solar cells and sensors
- Plasma based surface treatment technologies
- New trends and concepts in plasma based deposition processes HiPIMS technology

They were accepted, and then after the ECM meeting will the organizers be informed. The Communication chair (I. Petrov) is allowed to use the information in the IUVSTA bulletin (news or flash news).

9. New business

The question of the IUVSTA **highlight seminar**, where and when it will be the best to have:

ECM 128 proposal in **Brazil** and ECM 128 proposal in **Australia** are willing to held the Highlight seminars too.

Welch Award Proposal

The STD director sketches a possible way for the Welch award support, way of finances to get from the family to the successful winner. This award will be reorganized and hopefully be given in 2018, maybe also with the presence of the family member (possibly in Geneva during the EVC 15).

New members of the Welch committee was formed by volunteers, M. Wuest has the list, and maybe still searching for some people, based on the scheme by Martin Wuest.

10. Closing remarks

The chair D. Ruzic closed the STD 16.56 local time.

Motion to Adjourn

Recorded by A. Vincze, Scientific Secretary, October 1, 2017