

Application Form for the Organization of an IUVSTA Workshop

TITLE OF THE WORKSHOP: IUVSTA Workshop on Plasma-assisted conversion of gases for a sustainable future

VENUE: Cerklje na Gorenjskem, Slovenia, EU

DATES (NB workshops should normally be 4-5 days in length): 3rd – 7th December 2023

PRINCIPAL THEMES/TOPICS:

Key challenges for the next decades are green technologies, a circular economy, and preventing global warming. Of particular interest is the development of technologies for synthesizing useful compounds from stable gases which are widely available, for example, carbon dioxide, nitrogen, methane, and water vapor. Classical methods have matured, so no breakthrough is expected. Plasma methods have been proved as promising for synthesizing useful chemicals, and numerous groups worldwide reported encouraging results in scientific literature. However, none of the scientific achievements have been adopted for industrial use because there are serious technological obstacles.

The proposed workshop will enlighten major challenges in the plasma-assisted conversion of stable gases. The invited participants will present recent advances in this scientific niche and a frank evaluation of technological obstacles. Both the conversion rates and the energy efficiency will be tackled. The gas-phase reactions may not provide appropriate yields of useful compounds at acceptable energy efficiency, so scientists who attempt to combine plasma and surface reactions using advanced nano-catalysts will be welcome. The invited participants will be selected from major groups worldwide and will discuss both theoretical evaluations and experimental results. The workshop will enable a current state of the art and will provide directions for further scientific and technological activities.

Workshop structure: The workshop will last 5 days (Sunday – Thursday). The participants will arrive at Ljubljana airport and be escorted to the workshop hotel. The accommodation will include the full board and the networking in the evenings. The hotel is isolated so that the participants will be available for formal and informal discussions during the workshop. The scientific program will consist of oral presentations in the mornings and thorough debates in the afternoons. Both invited speakers and regular attendees (including students from the invited speakers' research organizations) will be invited to disclose posters for the entire period of the workshop. The formal poster session is scheduled in the evenings for optimal networking. The number of invited speakers is limited to about 20 in order to have ample time for discussions. IUVSTA contribution will be spent on subsidizing the accommodation of participants.

IUVSTA SCIENTIFIC SPONSORING DIVISIONS:

Plasma Science and Technologies Division

NAMES AND NATIONALITIES OF ORGANIZERS (not more than 4, which must include at least one IUVSTA Divisional Committee member; please identify the Main Organiser and provide their full contact details):

Main Organizer: Prof. Dr. Alenka Vesel, President of Slovenian Vacuum Society, Jozef Stefan Institute, Jamova cesta 39, 1000 Ljubljana, Slovenia. Phone +386 1 4773405, fax +386 1 4773440, mobile +386 41 331443, Email: alenka.vesel@ijs.si

Chair of scientific committee: Prof. Dr. Satoshi Hamaguchi, IUVSTA chair of Plasma Science & Technologies Division, Osaka University, Japan. Phone: +81-6-6879-7913, fax: +81-6-6879-7916 Email: hamaguch@ppl.eng.osaka-u.ac.jp

NAMES AND NATIONALITIES OF LIKELY INVITED SPEAKERS (in alphabetical order):

1. **Jean-Paul Booth, Paris, France**
2. **Hong Young Chang, Daejeon, Korea**
3. **Wonho Choe, Daejeon, Korea**
4. **Deborah O'Connell, Dublin, Ireland**
5. **Maria Dinescu, Bucharest, Romania**
6. **Christian Day, Karlsruhe, Germany**
7. **Timo Gans, Dublin, Ireland**
8. **Vasco Guerra, Lisbon, Portugal**
9. **Satoshi Hamaguchi, Osaka, Japan**
10. **Chin Oi Hoong, Kuala Lumpur, Malaysia,**
11. **Kersten Holger, Kiel, Germany**
12. **Masaru Hori, Nagoya, Japan**
13. **Josmin Jose, Tiruvalla, India**
14. **Katsuhisa Kitano, Osaka, Japan**
15. **Nikša Krstulović, Zagreb, Croatia**
16. **Kinga Kutasi, Budapest, Hungary**
17. **Nevena Puać, Belgrade, Serbia**
18. **Rajdeep Singh Rawat, Singapore**
19. **Petr Špatenka, Prague, Czech Republic**
20. **Mohan Sankaran, Urbana, USA**
21. **Mahendra Sunkara, Louisville, USA**

NAMES OF OTHER SPONSORS (actual and anticipated; include indication of known or anticipated level of financial contribution: IUVSTA must be advertised as the main sponsor):

None

UNDERWRITING: Who will underwrite any financial loss? (If approved, IUVSTA will make offer sponsorship to a predetermined maximum level and will not have any further financial responsibility)

Slovenian Vacuum Society

CHECKLIST FOR APPLICANTS

Organizers must undertake to fulfil the conditions below. Financial contributions from IUVSTA are conditional upon this undertaking.

I AGREE to -

- PROVIDE full information of event to the IUVSTA Scientific Secretary
- PROVIDE a budget, updated in the event of major changes, to the IUVSTA Scientific Secretary
- PROVIDE Dedicated Website for the event. Give url if known (this information must be passed to the Scientific Secretary before any IUVSTA funds will be released):
Name and e-mail address of person who will maintain the site:

Prof. Gregor Primc, gregor.primc@ijs.si

- PROVIDE a report of the event after its completion for the IUVSTA web site
Name and e-mail address of person who will provide this report:

Prof. Miran Mozetič, miran.mozetic@guest.arnes.si

- AGREE to include IUVSTA name and logo on all event announcements
- AGREE to use IUVSTA numbering system (e.g. IUVSTA Workshop no NN) on all event announcements
- AGREE to give a short presentation on IUVSTA at the beginning of the event. (Suitable material may be downloaded from the IUVSTA web site <http://www.iuvsta.org>)
- AGREE to distribute IUVSTA material provided to the organizers
- AGREE not to have a published Proceedings of the event
- AGREE to follow the Workshop Guidelines described in the IUVSTA Procedure Manual (downloadable from the IUVSTA web site: <http://www.iuvsta.org>)

I agree to fulfil all the points of the above checklist

Name:

President of Slovenian Vacuum Society

Prof. dr. Alenka Vesel

Date and Signature:



Ljubljana, 15th August 2022

Budget for the Workshop (2016.10.24-28)

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VENUE: Cerklje, Slovenia

DATE: 3th – 7th December 2023

Income	Unit cost (EUR)	Quantity	Sub-Total (EUR)	Remarks
Registration Fee Invited (per person)	900	20	18,000	20 invited speakers
Registration fee Non-Invited (per person)	1,100	10	11,000	poster presenters
IUVSTA funding	9,000	1	9,000	Funding supports for invited speakers
Total (EUR)			38,000	

Expenditures	Unit cost (EUR)	Quantity	Sub-Total (EUR)	Remarks
Meals (5 days per person)	325	30	9,750	buffet Lunch 25€, buffet Dinner 30€, and Coffee breaks 10€
Excursion (per person)	85	30	2,550	Transportation and Tickets
Banquet (per person)	50	30	1,500	
Meeting Rooms (per day)	500	5	2,500	
Hotel Rooms (5 nights per invited speaker)	600	20	12,000	partially covered by IUVSTA grant
Hotel Rooms (other participants)	600	10	6,000	
Temporary Labors (per person)	0	0	0	Volunteers
Miscellaneous	2,200	1	2,200	Web page, abstract booklet, badges, unexpected extra costs
Airport-hotel transfers, return	50	30	1,500	shared taxi + cable-car
Airticket partial funding (Asia Pacific, per person)	0	0	0	none
Total (EUR)			38,000	

prof. dr. Alenka Vesel, President of DVTS