# 5th DEA Club Meeting
# 13-15 April 2026
# EUREKA Hotel, SOPOT
# POLAND

GDAŃSK TECH

# BOOK OF ABSTRACTS

# Registration

To facilitate the smooth organisation of the meeting, participants are kindly asked to complete their registration by **17 March 2026**, when the registration period will officially close. This deadline will allow the organisers to finalize the conference programme, prepare the materials for participants, and make the necessary logistical arrangements for the venue and social events. We therefore encourage all prospective attendees to register in advance to ensure their participation in the meeting.

# Contact information

For conference-related enquiries, please contact *Gosia Śmiałek-Telega* at:

deaclub2026.wimio@pg.edu.pl

For questions regarding the scientific programme, please contact *Janina Kopyra* at:

deaclubmeeting@gmail.com

# Committees

Conference Chairs:

- Janina Kopyra – Siedlce University
- Małgorzata Śmiałek-Telega – Gdańsk University of Technology

Local Organising Committee:

- Małgorzata Śmiałek-Telega
- Natalia Jakowska
- Mateusz Rawa
- Jacek Frost

Scientific Advisory Board

- Janina Kopyra
- Małgorzata Śmiałek-Telega
- Nigel J. Mason
- Ilko Bald
- João Ameixa
- Pamir Nag
- Juraj Fedor

# Scientific Program – Overview

| Monday 13th | | | Tuesday 14th | | | Wednesday 15th | | |
|---|---|---|---|---|---|---|---|---|
| **08:00-09:00** | **Registration** | | | | | | | |
| **09:00-09:20** | **Opening** | | | | | 09:00-09:30 | *Fedor* | Swiderek |
| 09:20-09:50 | *Gianturco* | Ptasińska | | | | 09:30-09:50 | | Ingólfsson |
| 09:50-10:10 | | Čížek | 09:30-10:00 | *Illenberger* | Rak | 09:50-10:10 | | Mendes |
| 10:10-10:30 | | Kossowski | 10:00-10:30 | | Mason | 10:10-10:30 | | Amiaud |
| **10:30-11:00** | **Coffee break** | | 10:30-10:50 | | Cornetta | **10:30-11:00** | **Coffee break** | |
| 11:00-11:30 | *Ingólfsson* | Buckman | **10:50-11:20** | | **Coffee break** | 11:00-11:20 | *Cassidy* | Eden |
| 11:30-12:00 | | Franz | 11:20-12:00 | *Mason* | Gianturco | 11:20-11:40 | | Farnik |
| 12:00-12:15 | | Śniegocka | 12:00-12:20 | | Lozano | 11:40-12:00 | | Jagou |
| **12:15-13:20** | **Lunch** | | **12:20-13:20** | | **Lunch** | 12:00-12:15 | | Majewski |
| 13:20-13:50 | *Pelc* | Domaracka | 13:20-13:40 | *Marinkovic* | Możejko | **12:15-13:20** | **Lunch** | |
| 13:50-14:10 | | Cassidy | 13:40-14:00 | | Syty | 13:20-13:50 | *Śmiałek* | Sala |
| 14:10-14:30 | | Fofano | 14:00-14:15 | | Jankowska | 13:50-14:20 | | Verlet |
| **14:30-15:00** | **Coffee break** | | 14:15-14:30 | | Jasik | 14:20-14:35 | | Dąbkowska |
| 15:00-15:30 | *Swiderek* | Fedor | **14:30-14:40** | **Conference photo** | | **14:30-15:00** | **Coffee break** | |
| 15:30-15:50 | | Łabuda | **14:40-16:00** | **Posters & coffee** | | 15:00-15:20 | *Denifl* | Matejčík |
| 15:50-16:05 | | Rodrigues | 16:00-16:30 | *Ptasińska* | Denifl | 15:20-15:40 | | Paul |
| 16:05-16:20 | | Das | 16:30-16:45 | | Schöpfer | 15:40-16:00 | | Nag |
| 16:20-16:40 | | Tennyson | 16:45-17:00 | | Gatt | **16:00-16:15** | **Closing remarks** | |
| | | | | | | | | |
| | | | **17:30-19:00** | **Walking tour** | | | | |
| **18:00-22:00** | **Conference dinner** | | | | | | | |

# 11. DOES ANY BELGRADE DATABASE NODE CAN ACCOMMODATE DEA DATA WITHIN ITS STRUCTURE ?

**BRATISLAV P. MARINKOVIĆ[1]*, VELJKO VUJČIĆ[2], JELENA B. MALJKOVIĆ[1], SANJA TOŠIĆ[1] AND VLADIMIR A. SREĆKOVIĆ[1,2,3]**

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This work is motivated by the recent study performed by some of the present authors on dissociative attachment processes induced by electron impact on the anaesthetic isoflurane fragmentation (Kopyra et al. 2025). Isoflurane is designated according to the IUPAC chemical nomenclature as 2-chloro-2-(difluoromethoxy)-1,1,1-trifluoroethane ($CF_3CHCl–O–CHF_2$) molecule. The collision of low-energy electrons with isoflurane (molecular mass 184.5 u) leads to the formation of several anionic fragments. The ion yield of each fragment varies with the electron energy as well as the relative intensities among the fragments. The presence of resonant features is evident for all fragments. Another study on the same molecule has been done by Matias et al. (2015) and some discrepancies between their data and the present data exist. These include the positions of peak maxima for some fragment anions and their relative intensities.

In order to systematize data on DEA processes and made them easy comparable for the same molecules, we want to adopt data in our BEAM database (Marinković et al. 2017, 2019). BEAM database has been originally designed to curate data on differential electron cross sections (DCSs) for elastic scattering and excitations of atoms and molecules. DCSs data are three-dimensional input data: energy – angle – cross section. Afterwards, database has been extended to support some of the electron ionization data (Marinković et al. 2025). Only simple ionization processes are treated, where initial target changes its charge after the collision (no fragmentation process is included). This limitation has been set up from the very beginning of the BEAM database design that there are no changes in composition from the left to the right side of the collisional equation. So, DEA data cannot be accommodated within BEAM database.

However, recently a new more flexible collisional database, ACol, has been developed (Vujčić et al. 2023). ACol is the specialized atomic and molecular database created for collisional processes in plasmas, particularly for heavy particle collisions involving hydrogen, helium, and alkali atoms. The database is hosted as part of the Serbian Virtual Observatory (SerVO) http://servo.aob.rs/acol/ and is developed within the Virtual Atomic and Molecular Data Center (VAMDC) project (Albert et al. 2020). In ACol database already several processes are included, such as: Excitation; Associative Ionization; Dissociative Recombination; Electron-Ion-Atom-Recombination; Penning Ionization, some of them include the changes in starting composition. So, we believe that DEA data could be successfully accommodated within ACol. It would open a possibility for collaboration with another VAMDC node maintained in Innsbruck, IDEADB – Innsbruck Dissociative Electron Attachment Database.

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Damien Albert, Bobby K Antony, Yaye-Awa Ba, et al., “A Decade with VAMDC: Results and Ambitions”, *Atoms*, **8**(4), 76 (2020) [45pp] doi: 10.3390/atoms8040076 Special Issue Development and Perspectives of Atomic and Molecular Databases

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