

XXIXth International Symposium on Molecular Beams



July 1-2, 2021

Online (Zoom Platform)

Website: <https://ismb2021.iesl.forth.gr/>

[Programme](#)

| TIME (starting) | | | | | | | PROGRAMME |
|------------------|--------|----------|-------|--------|-------------|----------|---|
| London | Berlin | Shanghai | Tokyo | Sydney | Los Angeles | New York | Thursday, July 1 |
| 7.45 | 8.45 | 14.45 | 15.45 | 16.45 | 0.55 | 2.45 | Welcome |
| Session 1 | | | | | | | Chair: Annouk RIJS |
| 8.00 | 9.00 | 15.00 | 16.00 | 17.00 | 0.00 | 3.00 | Donatella LORU (<i>DESY, Germany</i>) Revealing the chemistry of polycyclic aromatic hydrocarbons by plasma sources |
| 8.30 | 9.30 | 15.30 | 16.30 | 17.30 | 0.30 | 3.30 | Dima BORODIN (<i>Göttingen, Germany</i>) Probe the molecule-surface interactions by thermal desorption rates |
| 9.00 | 10.00 | 16.00 | 17.00 | 18.00 | 1.00 | 4.00 | Break |
| Session 2 | | | | | | | Chair: Ken McKENDRICK |
| 9.15 | 10.15 | 16.15 | 17.15 | 18.15 | 1.15 | 4.15 | Jolijn ONVLEE (<i>Radboud University, Netherlands</i>) Molecular collisions: from molecular billiards to chemical reactions |
| 9.45 | 10.45 | 16.45 | 17.45 | 18.45 | 1.45 | 4.45 | Chunlei XIAO (<i>DICP, China</i>) Crossed-beam experiment of F+H ₂ at collision energies down to 0.5 meV |
| 10.15 | 11.15 | 17.15 | 18.15 | 19.15 | 2.15 | 5.15 | Break |
| Session 3 | | | | | | | Chair: Xueming YANG |
| 10.30 | 11.30 | 17.30 | 18.30 | 19.30 | 2.30 | 5.30 | Lee Yeong KIM (<i>UNIST, Korea</i>) Matter-Wave Diffraction from a Periodic Array of Half Planes and its application to He ₂ and He ₃ |
| 11.00 | 12.00 | 18.00 | 19.00 | 20.00 | 3.00 | 6.00 | Geetika BHARDWAJ (<i>Tata Institute of Fundamental Research, India</i>) - HOT TOPIC Imaging atomically-thin thin films using neutral atom microscopy |
| 11.30 | 12.30 | 18.30 | 19.30 | 20.30 | 3.30 | 6.30 | Bo-Jung CHEN (<i>EPFL, Switzerland</i>) - HOT TOPIC State-to-state methane-surface scattering with bolometer infrared laser tagging (BILT) detection |
| 12.00 | 13.00 | 19.00 | 20.00 | 21.00 | 4.00 | 7.00 | LONG BREAK |

| TIME (starting) | | | | | | | PROGRAMME |
|-----------------|--------|----------|-------|--------|-------------|----------|------------------|
| London | Berlin | Shanghai | Tokyo | Sydney | Los Angeles | New York | Thursday, July 1 |

| Session 4 | | | | | | | Chair: Peter RAKITZIS |
|-----------|-------|-------|-------|------|-------|-------|--|
| 16.00 | 17.00 | 23.00 | 24.00 | 1.00 | 8.00 | 11.00 | Amanda ALENCAR (Universidade Federal do Rio de Janeiro, Brazil) - HOT TOPIC Quantum State Preparation of H Atoms by Hyperfine Quenching |
| 16.30 | 17.30 | 23.30 | 0.30 | 1.30 | 8.30 | 11.30 | Marius HERVE (Lyon, France) Ultrafast XUV-induced Dynamics in Gas-phase Complex Molecules |
| 17.00 | 18.00 | 0.00 | 1.00 | 2.00 | 9.00 | 12.00 | Marissa WEICHMAN (Princeton, USA) State-resolved spectroscopy and dynamics of large buffer-gas cooled molecules |
| 17.30 | 18.30 | 0.30 | 1.30 | 2.30 | 9.30 | 12.30 | Break |
| Session 5 | | | | | | | Chair: Ruth SIGNORELL |
| 17.45 | 18.45 | 0.45 | 1.45 | 2.45 | 9.45 | 12.45 | Alice GREEN (Oxford, UK) Au_{10}^+ : a Broadband Infrared Chromophore |
| 18.15 | 19.15 | 1.15 | 2.15 | 3.15 | 10.15 | 13.15 | Wes CAMPBELL (UCLA, USA) Pure-state preparation and readout of increasingly large molecules |
| 18.45 | 19.45 | 1.45 | 2.45 | 3.45 | 10.45 | 13.45 | Break |
| Session 6 | | | | | | | Chair: Arthur SUITS |
| 19.00 | 20.00 | 2.00 | 3.00 | 4.00 | 11.00 | 14.00 | Yu LIU (NIST, USA) Probing and controlling reactions at sub-microkelvin temperatures |
| 19.30 | 20.30 | 2.30 | 3.30 | 4.30 | 11.30 | 14.30 | Krystal VO & Siyoung LEE (UC Santa Barbara, USA) - HOT TOPIC UV Photodynamics of Thymine-Thymine Stacked Nucleobases in Peptide Nucleic Acids |

| | | | | | | | |
|-------|-------|------|------|------|-------|-------|-----------------------|
| 20.00 | 21.00 | 3.00 | 4.00 | 5.00 | 12.00 | 15.00 | Day 1 closing remarks |
|-------|-------|------|------|------|-------|-------|-----------------------|

| TIME (starting) | | | | | | | PROGRAMME |
|------------------|--------|----------|-------|--------|-------------|----------|---|
| London | Berlin | Shanghai | Tokyo | Sydney | Los Angeles | New York | Friday, July 2 |
| 7.45 | 8.45 | 14.45 | 15.45 | 16.45 | 0.55 | 2.45 | Day 2 opening remarks |
| Session 7 | | | | | | | Chair: Daniel STRASSER |
| 8.00 | 9.00 | 15.00 | 16.00 | 17.00 | 0.00 | 3.00 | Chris HANSEN (New South Wales, Australia) Photodissociation of CF ₃ CHO from the decomposition of hydrofluoroolefins provides a new source of CHF ₃ (HFC-23) in the atmosphere |
| 8.30 | 9.30 | 15.30 | 16.30 | 17.30 | 0.30 | 3.30 | Bin JIANG (USTC, China) Machine learning assisted energy transfer dynamics simulations at gas-surface interface |
| 9.00 | 10.00 | 16.00 | 17.00 | 18.00 | 1.00 | 4.00 | Break |
| Session 8 | | | | | | | Chair: Fengyan WANG |
| 9.15 | 10.15 | 16.15 | 17.15 | 18.15 | 1.15 | 4.15 | Satoru MURAMATSU (Hiroshima, Japan) Gas-Phase Characterization of Hypervalent Carbon Compounds: Penta- versus Tetra-Coordinated Isomers |
| 9.45 | 10.45 | 16.45 | 17.45 | 18.45 | 1.45 | 4.45 | Gianmarco VANUZZO (Perugia, Italy) Crossed-beams and theoretical studies of the O(³ P, ¹ D) + benzene reaction dynamics: primary products, branching fractions, and role of intersystem crossing |
| 10.15 | 11.15 | 17.15 | 18.15 | 19.15 | 2.15 | 5.15 | Break |
| Session 9 | | | | | | | Chair: Melanie SCHNELL |
| 10.30 | 11.30 | 17.30 | 18.30 | 19.30 | 2.30 | 5.30 | Chenxi LI (Shanghai, China) Controlled Laval Expansion Facilitates Understanding Nucleation on the Molecular Level |
| 11.00 | 12.00 | 18.00 | 19.00 | 20.00 | 3.00 | 6.00 | Lukas BRUDER (Freiburg, Germany) Coherent multidimensional spectroscopy of cluster beams |
| 11.30 | 12.30 | 18.30 | 19.30 | 20.30 | 3.30 | 6.30 | Andriana TSIKRITEA (Univ. of Oxford & Univ. of Liverpool, UK) - HOT TOPIC Charge transfer reactions between polar molecules and rare gas ions |
| 12.00 | 13.00 | 19.00 | 20.00 | 21.00 | 4.00 | 7.00 | LONG BREAK |

| TIME (starting) | | | | | | | PROGRAMME |
|-----------------|--------|----------|-------|--------|-------------|----------|----------------|
| London | Berlin | Shanghai | Tokyo | Sydney | Los Angeles | New York | Friday, July 2 |

| <u>Session 10</u> | | | | | | | Chair: Hua GUO |
|-------------------|--------------|-------------|-------------|-------------|--------------|--------------|---|
| | | | | | | | Baruch MARGULIS (Weizmann, Israel) - HOT TOPIC |
| 16.00 | 17.00 | 23.00 | 24.00 | 1.00 | 8.00 | 11.00 | Direct Observation of a Feshbach-resonance by Coincidence-detection of Ions and Electrons in Penning Ionization Collisions |
| 16.30 | 17.30 | 23.30 | 0.30 | 1.30 | 8.30 | 11.30 | Sonia Marggi POULLAIN (Universidad Complutense Madrid, Spain) Probing molecular dynamics using ultrafast XUV transient spectroscopy |
| 17.00 | 18.00 | 0.00 | 1.00 | 2.00 | 9.00 | 12.00 | Kerstin KRUGER (Göttingen, Germany) Following the energy transfer between hydrogen atoms and surfaces using scattering experiments |
| 17.30 | 18.30 | 0.30 | 1.30 | 2.30 | 9.30 | 12.30 | Break |
| <u>Session 11</u> | | | | | | | Chair: Hanna REISLER |
| | | | | | | | Kristjan MATTHIASSEN (Univ. of Iceland, Iceland) |
| 17.45 | 18.45 | 0.45 | 1.45 | 2.45 | 9.45 | 12.45 | Velocity map imaging and photoelectron spectroscopy as a means for determining photodissociation pathways of molecules |
| 18.15 | 19.15 | 1.15 | 2.15 | 3.15 | 10.15 | 13.15 | Ivo VINKLAREK (Prague, Czech Republic) Energy Partitioning and Spin-orbit Effects in the Photodissociation of Higher Chloroalkanes as Isolated Molecules and Clusters |
| 18.45 | 19.45 | 1.45 | 2.45 | 3.45 | 10.45 | 13.45 | Break |
| <u>Session 12</u> | | | | | | | Chair: Dan NEUMARK |
| | | | | | | | Greta KOUMARIANOU (UCSB, USA) |
| 19.00 | 20.00 | 2.00 | 3.00 | 4.00 | 11.00 | 14.00 | Ultrasensitive high precision microwave spectroscopy in a buffer gas cell |
| 19.30 | 20.30 | 2.30 | 3.30 | 4.30 | 11.30 | 14.30 | Xu-Dong WANG (Radboud University, Netherlands) - HOT TOPIC Cold and controlled inelastic and reactive collisions between C and O ₂ |
| 20.00 | 21.00 | 3.00 | 4.00 | 5.00 | 12.00 | 15.00 | Closing Remarks |