

ECAMP13

13TH EUROPEAN CONFERENCE ON ATOMS,
MOLECULES AND PHOTONS

FLORENCE, ITALY

APRIL 8-12
2019



PROGRAM



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WELCOME

We are pleased to welcoming to the 13th European Conference on Atoms Molecules and Photons (ECAMP13) in Florence!

The triennial ECAMP conference series, launched in 1981, is the major conference of the Atomic, Molecular and Optical Physics Division (AMOPD) of the European Physical Society (EPS).

The Scientific Programme covers the most recent developments in the broader field of AMO physics.

We extend our sincere appreciation and gratitude to the Chairs and all Speakers whose contributions help to make this event possible.

We are very much looking forward to this outstanding event and its unique approach to exchanging knowledge.

The Local Organizing Committee

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GENERAL INFORMATION

Organizing Committee

EPS AMOPD

The Atomic, Molecular and Optical Physics Division (AMOPD) of the European Physical Society (EPS)



Organizing Secretariat



Viale Matteotti, 7 - 50121 Florence, Italy
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The Organizing Secretariat desk is open for registration and information according to the following time schedule:

Sunday, April 7	16.00-18.00
Monday, April 8	08.00-20.00
Tuesday, April 9	08.30-19.00
Wednesday, April 10	08.30-13.00
Thursday, April 11	08.30-19.00
Friday, April 12	08.30-17.30

Congress Venue

Fortezza da Basso - Cavaniglia Pavilion
Viale Strozzi 1 - 50129 Florence, Italy

App ECAMP13

A dedicated APP for ECAMP13 has been realized!
Download the app “miTalent” from App Store or Android. Insert the code: **ecamp13** and then start to use it!

Registration Fees

Registration fees (VAT included)	On site
Delegates	600,00 € (491,80 € + VAT)
Students*	320,00 € (262,30 € + VAT)

*Copy of valid Student Card must be handed at the Registration Desk

Registration is mandatory for all oral and posters presenters.

Welcome Reception & Social Dinner for Accompanying Person

The price is 70,00 € (VAT included) and includes:

- Welcome reception on April 8 at the Congress Venue
- Social dinner on April 10 2019 at Palazzo Borghese



POSTER SESSION 3

- P3.32** Symmetry breaking atomic ionization by coherent circularly polarized bichromatic radiation
E.V. Gryzlova¹, A.N. Grum-Grzhimailo¹, M.M. Popova¹, E.I. Staroselskaya¹, N. Douquet², K. Bartschat² (¹Russia, ²USA)
- P3.33** Inspecting the hydrogen migration in water using asymmetric fs laser
E. Kechaoglou, S. Kaziannis, C. Kosmidis (Greece)
- P3.34** Coherent blue light generated by four-wave mixing: interference effect and autler-townes splitting
M.P. Moreno, A.A.C. de Almeida, S.S. Vianna (Brazil)
- P3.35** Coherent population oscillations-based light storage
P. Neveu, C. Banerjee, F. Bretenaker, E. Brion, F. Goldfarb (France)
- P3.36** Phase sensitive amplification enabled by coherent population trapping
P. Neveu¹, C. Banerjee¹, J. Lugani^{1,2}, F. Bretenaker¹, E. Brion¹, F. Goldfarb¹ (¹France, ²United Kingdom)
- P3.37** Elastic electron scattering from methane molecule in the energy range from 50-300eV
J.B. Maljković¹, J. Vuković², K. Tökési³, B. Predojević², B.P. Marinković¹ (¹Serbia, ²Bosnia and Herzegovina, ³Hungary)
- P3.38** Calculation of elastic resonant electron scattering on one-electron ions
K.N. Lyashchenko¹, D.M. Vasileva¹, O.Yu. Andreev¹, A.B. Voitki² (¹Russia, ²Germany)
- P3.39** Laser-assisted (e,2e) ionization in a quasi-Sturmian-Floquet approach
S.A. Zaytsev¹, L.U. Ancarani², K.A. Kouzakov¹ (¹Russia, ²France)

Highly charged ions

- P3.40** Towards background free studies of capture reactions in a heavyion storage ring
L. Varga¹, K. Blaum¹, T. Davinson², J. Glorius¹, B. Jurado³, C. Langer¹, C. Lederer Woods², Yu.A. Litvinov¹, R. Reifarh¹, Z. Slavkovská¹, T. Stöhlker¹, P.J. Woods¹, Y.M. Xing¹ (¹Germany, ²United Kingdom, ³France)
- P3.41** Evidence of trielectronic recombination for Ar Ions in an EBIT
D.S. La Mantia^{1,2}, W. Biela¹, J.A. Tanis², A. Warczak¹ (¹Poland, ²USA)

P3.37

Elastic electron scattering from methane molecule in the energy range from 50-300eV

Jelena B. Maljković

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2. *Faculty of Science, University of Banja Luka, Mladena Stojanovića 2, 78000 Banja Luka, Republic of Srpska, Bosnia and Herzegovina*

3. *Institute for Nuclear Research, Hungarian Academy of Sciences (ATOMKI), Debrecen, Hungary*

4. *ELI-ALPS, ELI-HU Non-profit Kft., Szeged, Hungary*

Methane gas has been investigated widely in past years by electron collisions (see a comprehensive review of electron elastic cross sections [1]). We have done a combined experimental and theoretical study of the electron elastic differential cross sections from methane molecule (CH_4) in the intermediate energy range. The experimental setup based on a crossed beam technique comprising of an electron gun, a single capillary gas needle and a detection system with a channeltron was used to measure differential cross sections. The absolute scale for the cross sections is obtained by relative-flow method using argon gas as a reference [2]. For the interpretation of the measured data we applied the partial expansion method to calculate the elastic cross sections for electron scattering from methane Fig 1. shows our theoretical results of the differential elastic electron scattering from methane molecule at 100 eV.

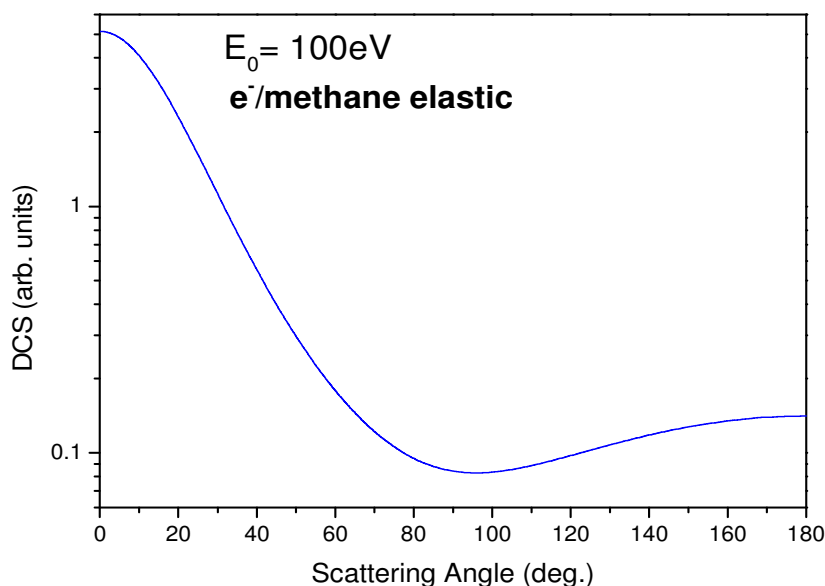


Fig. 1 Angular dependence of relative DCS for elastic electron scattering on methane molecule.

References

- [1] Bratislav P. Marinković, Vladimir A. Srećković, Veljko Vujčić, Stefan Ivanović, Nebojša Uskoković, Milutin Nešić, Ljubinko M. Ignjatović, Darko Jevremović, Milan S. Dimitrijević and Nigel J. Mason, *Databases at the Serbian Virtual Observatory for Collisional and Radiative Processes.*, *Atoms*, **7**, 11 (2019).
- [2] Miloš Lj. Ranković, Jelena B. Maljković, Karoly Tökési and Bratislav P. Marinković, *Eur. Phys. J. D.* **72**, 30 (2018).