

Inaugural workshop on Nuclear Astrochemistry

Report of Contributions

Contribution ID: 1

Type: **not specified**

Development of interdisciplinary programs

Contribution ID: 2

Type: **not specified**

Third working groups meeting

Contribution ID: 3

Type: **not specified**

Presentation by working groups

Contribution ID: 4

Type: **not specified**

Discussion+closing remarks

Contribution ID: 5

Type: **not specified**

Departure

Contribution ID: 6

Type: **not specified**

Nuclear burning recorded in meteorites as a tracer of the birth of the Solar System

Presenter: LUGARO, Maria (Konkoly Observatory)

Contribution ID: 7

Type: **not specified**

Welcome from ECT* Director, Gert Aarts

Monday, 26 February 2024 09:30 (10 minutes)

Contribution ID: 8

Type: **not specified**

Goals of the workshop

Monday, 26 February 2024 09:40 (10 minutes)

Primary authors: MASHA, Eliana (Helmholtz-Zentrum Dresden-Rossendorf e.V. (HZDR)); MASON, Nigel (University of Kent and Europlanet)

Co-author: BEMMERER, Daniel (HZDR and ChETEC)

Presenter: MASON, Nigel (University of Kent and Europlanet)

Contribution ID: 9

Type: **not specified**

Focus on what we know (don't know) of evolution of life on Earth

Monday, 26 February 2024 09:50 (50 minutes)

Presenter: RIMMER, Paul (University of Cambridge)

Contribution ID: **10**

Type: **not specified**

Early chemical tracers in the Milky Way

Monday, 26 February 2024 10:40 (40 minutes)

Presenter: HANSEN, Camilla Juul (IAP, Goethe University Frankfurt)

Contribution ID: 11

Type: **not specified**

Cutting-Edge Telescopes in the Quest for Space molecules

Monday, 26 February 2024 11:50 (40 minutes)

Presenter: QUITIAN-LARA, Dr Heidy Mayerly (University of Kent)

Contribution ID: 12

Type: **not specified**

Laboratory for Underground Nuclear Astrophysics

Monday, 26 February 2024 14:00 (50 minutes)

Presenter: FERRARO, Federico (INFN-LNGS)

Contribution ID: 13

Type: **not specified**

Nuclear Astrophysics at TRIUMF

Monday, 26 February 2024 14:50 (40 minutes)

Presenter: WILLIAMS, Matthew (University of Surrey)

Contribution ID: 14

Type: **not specified**

Discussions

Monday, 26 February 2024 16:00 (40 minutes)

Contribution ID: 15

Type: **not specified**

Working groups formation

Monday, 26 February 2024 16:40 (40 minutes)

Contribution ID: 16

Type: **not specified**

The 2024 state of the art on the Standard Solar Model

Tuesday, 27 February 2024 09:30 (50 minutes)

Presenter: SERENELLI, Aldo (Institute of Space Sciences (ICE, CSIC))

Contribution ID: 17

Type: **not specified**

Tracing Solar System evolution through isotope variations in meteorites

Tuesday, 27 February 2024 10:20 (40 minutes)

Presenter: EK, Mattias (ETH Zürich)

Contribution ID: 18

Type: **not specified**

The potential roles of meteorites in the origins of life on Earth

Tuesday, 27 February 2024 11:30 (40 minutes)

Presenter: HICKMAN-LEWIS, Keyron

Contribution ID: 19

Type: **not specified**

Morning session discussion

Contribution ID: 20

Type: **not specified**

Morning session discussion

Tuesday, 27 February 2024 12:10 (20 minutes)

Contribution ID: 21

Type: **not specified**

Sub-Coulomb nuclear reactions and spectroscopy using the Trojan Horse Method

Tuesday, 27 February 2024 14:00 (50 minutes)

Presenter: Prof. TUMINO, Aurora (Facoltà di Architettura e Ingegneria Università degli Studi di Enna "Kore" & INFN-LNS)

Contribution ID: 22

Type: **not specified**

Our present understanding of the ${}^3\text{He}(\alpha, \text{g}){}^7\text{Be}$ key astrophysical nuclear reaction

Tuesday, 27 February 2024 14:50 (40 minutes)

Presenter: SZÜCS, Tamás (Atomki)

Contribution ID: 23

Type: **not specified**

Big Bang nucleosynthesis studied at Felsenkeller and CRYRING

Tuesday, 27 February 2024 16:00 (40 minutes)

Presenter: MASHA, Eliana (Helmholtz-Zentrum Dresden-Rossendorf e.V. (HZDR))

Contribution ID: 24

Type: **not specified**

Galactic Chemical Evolution with short lived radioactive Isotope

Tuesday, 27 February 2024 16:40 (40 minutes)

Presenter: WEHMEYER, Benjamin (University of Wroclaw)

Contribution ID: 25

Type: **not specified**

First working groups meeting

Tuesday, 27 February 2024 17:20 (1 hour)

Contribution ID: 26

Type: **not specified**

Ion induced processes in the ISM and planetary and satellite atmospheres

Wednesday, 28 February 2024 09:30 (50 minutes)

Presenter: GEPPERT, Wolf (Stockholm University)

Contribution ID: 27

Type: **not specified**

Astrochemistry at large scale facilities

Wednesday, 28 February 2024 10:20 (40 minutes)

Presenter: IOPPOLO, Sergio (Aarhus University)

Contribution ID: 28

Type: **not specified**

Photochemistry studies on a simulation chamber: From surfaces to biomolecules.

Wednesday, 28 February 2024 11:30 (40 minutes)

Presenter: MATEO MARTI, Eva (Centro de Astrobiología (CSIC/INTA))

Contribution ID: 29

Type: **not specified**

Morning session discussion

Wednesday, 28 February 2024 12:10 (20 minutes)

Contribution ID: **30**

Type: **not specified**

The chemistry of planet formation

Wednesday, 28 February 2024 14:00 (50 minutes)

Presenter: BITSCH, Bertram (University College Cork)

Contribution ID: 31

Type: **not specified**

Astrochemistry: from stars to planets

Wednesday, 28 February 2024 14:50 (40 minutes)

Presenter: WIESENFELD, Laurent (Laboratoire Aime Cotton CNRS Universite Paris-Saclay)

Contribution ID: 32

Type: **not specified**

Predicting potentially relevant molecules in astrochemistry with quantum chemical methods

Wednesday, 28 February 2024 16:00 (40 minutes)

Presenter: FANTUZZI, Felipe (University of Kent)

Contribution ID: 33

Type: **not specified**

Systems Chemistry applied to study of origins of life

Wednesday, 28 February 2024 16:40 (40 minutes)

Presenter: HAILEY, Perry (University of Kent)

Contribution ID: 34

Type: **not specified**

Afternoon session discussion

Wednesday, 28 February 2024 17:20 (1 hour)

Contribution ID: 35

Type: **not specified**

Nuclear burning recorded in meteorites as a tracer of the birth of the Solar System

Thursday, 29 February 2024 09:30 (50 minutes)

Presenter: LUGARO, Maria (Konkoly Observatory)

Contribution ID: **36**

Type: **not specified**

Hadean Earth recipes for the emergence of life

Thursday, 29 February 2024 10:20 (40 minutes)

Presenter: MOJZSIS, Stephen (HUN-REN, CSFK Research Centre for Astronomy & Earth Sciences)

Contribution ID: 37

Type: **not specified**

Can interstellar asymmetric photochemistry explain the origins of biomolecular homochirality on Earth?

Thursday, 29 February 2024 11:30 (40 minutes)

Presenter: BOCKOVÁ, Jana (CNES, Institut de Chimie de Nice, Université Côte d'Azur)

Contribution ID: **38**

Type: **not specified**

Morning session discussion

Thursday, 29 February 2024 12:10 (20 minutes)

Contribution ID: 39

Type: **not specified**

Investigating Other Worlds

Thursday, 29 February 2024 14:00 (50 minutes)

Presenter: RAUER, Heike (DLR, Institut für Planetenforschung)

Contribution ID: 40

Type: **not specified**

Molecular complexity in space, from the interstellar medium to planetary atmospheres

Thursday, 29 February 2024 14:50 (40 minutes)

Presenter: BALUCANI, Nadia (DCBB - Università degli Studi di Perugia)

Contribution ID: 41

Type: **not specified**

Impact of recently measured nuclear reaction rates on the nucleosynthesis of ^{26}Al in stars

Thursday, 29 February 2024 16:00 (40 minutes)

Presenter: BATTINO, Umberto

Contribution ID: 42

Type: **not specified**

Second working groups meeting

Thursday, 29 February 2024 16:40 (1h 40m)

Contribution ID: 43

Type: **not specified**

Development of interdisciplinary programs

Friday, 1 March 2024 09:30 (50 minutes)

Contribution ID: 44

Type: **not specified**

Third working groups meeting

Friday, 1 March 2024 10:20 (40 minutes)

Contribution ID: 45

Type: **not specified**

Presentation by working groups

Friday, 1 March 2024 11:30 (40 minutes)

Contribution ID: 46

Type: **not specified**

Discussion+closing remarks

Friday, 1 March 2024 12:10 (20 minutes)

Primary authors: BEMMERER, Daniel (HZDR and ChETEC); MASHA, Eliana (Helmholtz-Zentrum Dresden-Rossendorf e.V. (HZDR)); MASON, Nigel (University of Kent, UK, Atomki, Debrecen and Europlanet)

Presenters: BEMMERER, Daniel (HZDR and ChETEC); MASHA, Eliana (Helmholtz-Zentrum Dresden-Rossendorf e.V. (HZDR)); MASON, Nigel (University of Kent, UK, Atomki, Debrecen and Europlanet)