Mariam Maisuradze

Phone number: (+995) 579997035 (WhatsApp) | **Phone number:** (+39) 0512093659 (Work) | **Email address:** mariam.maisuradze3@unibo.it | **Website:** https://www.unibo.it/sitoweb/mariam.maisuradze3 | **Website:** https://site.unibo.it/spectro-electrochem-energy-research-group/en | **Address:** Via Piero Gobetti #85 , 40129, Bologna, Italy (Work)

WORK EXPERIENCE

UNIVERSITY OF BOLOGNA – BOLOGNA, ITALY

RESEARCH FELLOW – 01/11/2024 – CURRENT

Analysis and characterization of the electrodes for redox flow batteries and catalysts through electrochemical and spectroscopical techniques.

ELETTRA SYNCHROTRON – TRIESTE, ITALY

PRINCIPAL INVESTIGATOR – 10/02/2025 – 16/02/2025

A principal investigator (PI) for Elettra proposal #20245369: "micro-XANES and 2D-XRF for post-mortem characterization of potassium-ion batteries", conducted on X-ray Fluorescence (XRF) beamline at Elettra Synchrotron Trieste.

ELETTRA SYNCHROTRON – TRIESTE, ITALY

ASSISTANT RESEARCH INVESTIGATOR – 2021 – 2025

- Elettra #20245183: XAFS beamline - "Nd L3-edge local structure investigation on high entropy oxide nanofibers as novel magnetic material"
- Elettra #20245195: XAFS beamline - "Local structural dynamic of lithium manganese iron phosphate electrode in sodium-ion batteries as detected by operando and ex-situ XAS".
- CERIC #20242189, MCX beamline & XAFS beamline - "Potassium ion batteries: structure and morphology checked by in situ XAS, in situ XRD and TEM".
- Elettra #20245003: XAFS beamline - "Electrolyte optimisation of manganese hexacyanoferrate rechargeable aqueous zinc-ion batteries".
- Elettra #20230012: XAFS beamline - "Development of a Conversion Electron Yield (CEY) Detector for the XAFS 11.1 beamline: From Fundamentals to Applications".
- Elettra #20230452: MCX beamline - "Powder X-ray diffraction study of the atmospheric de-sodiation of the O3-type NaMn0.5Fe0.4Ni0.1O2 and the passivating effect of Cu substitution".
- CERIC #20222183: MCX beamline - "Magnesium ion batteries: structure and morphology checked by in situ XAS, in situ XRD and TEM".
- Elettra #20220188: XRF beamline - "micro XANES and 2D scanning XRF of nickel-doped Prussian Blue based cathode materials in aqueous zinc-ion batteries".
- Elettra #20220179: XAFS beamline - "XAS investigation of high entropy oxide electrospun nanofibers as anode materials for lithium ion batteries".
- CERIC #20212162: XAFS beamline & MCX beamline - "Aqueous zinc-ion batteries: structure and morphology checked by in situ XAS, in situ XRD and TEM".

UNIVERSITY OF BOLOGNA – BOLOGNA, ITALY

RESEARCH FELLOW – 01/11/2023 – 30/10/2024

Prussian Blue Analogues (PBAs) for Post-lithium batteries.

UNIVERSITY OF BOLOGNA – BOLOGNA, ITALY

ASSISTANT OF THE LECTURER – 2023 – 2025

Contribution in PhD course "X-Ray Monitoring in Materials Science and in the Environment" through the case study presentation and the laboratory demonstration of X-ray Fluorescence technique.

UNIVERSITY OF LEIPZIG, WILHELM-OSTWALD INSTITUTE – LEIPZIG, GERMANY

INTERN – 01/11/2022 – 31/01/2023

XPS Study of the Ni-doped Manganese Hexacyanoferrate Cathode Material in the Framework of the PhD Thesis.

INDUSTRIAL CHEMISTRY DEPARTMENT (CHIMICA INDUSTRIALE "TOSO MONTANARI"), UNIVERSITY OF BOLOGNA – BOLOGNA, ITALY

MASTER THESIS – 11/2019 – 07/2020

Working on master thesis about "Synthesis and Characterization of Double Metal Hexacyanoferrates" by using laboratory and synchrotron based techniques: XAS (X-ray absorption Spectroscopy), PXRD (Powder X-ray Diffraction), TXM (Transmission X-ray Microscopy), CV (Cyclic Voltammetry), FTIR/ATR (Fourier Transform Infrared Spectroscopy/Attenuated Total Reflectance), TGA (Thermogravimetric Analysis) and MP-AES (Microwave Plasma Atomic Emission Spectroscopy).

CNRS; UCCS; UNIVERSITY OF LILLE – LILLE, FRANCE

INTERN – 14/01/2019 – 01/03/2019

Characterization of catalysts with XPS (X-ray Photoelectron Spectroscopy), solid state NMR (Nuclear Magnetic Resonance spectroscopy) and FT-IR/ATR.

SMART/ATMOSIM_LAB, TBILISI STATE UNIVERSITY – TBILISI, GEORGIA

LABORATORY EMPLOYEE – 02/2018 – 08/2018

Air quality analysis in Tbilisi. Sample collection throughout the city. Detection of methane, carbon and nitrogen oxides in the air for both online analysis and collected samples.

TBILISI STATE UNIVERSITY – TBILISI, GEORGIA

LABORATORY ASSISTANT – 04/2016 – 07/2018

Research of enantioseparation, mainly on HPLC (High Performance Liquid Chromatography), also UHPLC (Ultra High Performance Liquid Chromatography). Testing chiral columns, including newly developed uncommercialized ones. Later working on the bachelor thesis and publication on the topic from the same field.

EDUCATION AND TRAINING

01/11/2020 – 20/03/2024 Bologna, Italy
PHD IN CHEMISTRY University of Bologna

Website https://www.unibo.it | **Level in EQF** EQF level 8

09/2018 – 07/2020
MASTER OF SCIENCE IN ADVANCED SPECTROSCOPY IN CHEMISTRY University of Bologna, University of Leipzig, University of Lille

Website https://master-asc.eu/ | **Level in EQF** EQF level 7

09/2014 – 07/2018 Tbilisi, Georgia
BACHELOR OF SCIENCE IN CHEMISTRY Ivane Javakhishvili Tbilisi State University

Website https://www.tsu.ge | **Level in EQF** EQF level 6

JOB-RELATED SKILLS

XAS; XRD; XRF (including 2D-XRF); XPS; TXM, SEM, HPLC; CV; GCPL; LSV, NMR (including solid NMR); FT-IR; MP-AES; UV-Vis.

PUBLICATIONS

2025
High Entropy Layered Cathode with Single-Crystal Morphology for High-Performance Sodium-Ion Batteries

D. Callegari, G. Maranini, C. Triolo, M. Maisuradze, H. Beere, A. Nassiri, U. Anselmi-Tamburini, S. Santangelo, M. Giorgetti, M. Coduri, *ACS Appl. Energy Mater.*, Submitted.

2025
Synchrotron Radiation Investigation of Reaction Mechanism of Manganese Prussian Blue Analogue in Aqueous Zn-Mn Electrolyte

M. Li, M. Maisuradze, I. Carlomagno, J. R. Herrera, J. R. Plaisier, G. Agostini, M. Giorgetti, *JPhys Energy*, Submitted.

2025
Advancements in sustainable aqueous Zn-ion batteries via exploring new cathode & anode optimisation strategies

M. Maisuradze, M. Li, S. Liu, J. R. Plaisier, M. Giorgetti, *proceedings article in the book series: Lecture Notes in Mechanical Engineering, Springer,* Accepted.

2025
Zincophilic MOF Protective Layer for Stable Zinc Anodes in Zinc-Ion Batteries

S. Liu, M. Maisuradze, M. Li, Q. Li, N. Kazemi, M. Giorgetti, *Chem. Eur. J.*, 2025, 0, e02217, https://doi.org/10.1002/chem.202502217

2025
Nitrogen doping induces carbon micro-defect to improve potassium storage properties

C. Zhang, M. Huang, T. Li, M. Maisuradze, Q. Li, Q. Meng, B. Xiao, F. Wei, Y. Sui, W. Yang, J. Qi, M. Giorgetti, R. Shao, *Colloids Surf. A: Physicochem. Eng. Asp.*, 2025, 714, 136485, https://doi.org/10.1016/j.colsurfa.2025.136485

2025
Excess of Zn to Relieve the Structural Distortion of Manganese Hexacyanoferrate in Aqueous Zn-ion Battery

M. Li, M. Maisuradze, Z. Paputungan, R. Denecke, J. R. Plaisier, G. Aquilanti, G. Agostini, M. Giorgetti, *J. Mater. Chem. A*, 2025, https://doi.org/10.1039/D4TA08889A

Article was chosen for the cover page of *The Journal of Materials Chemistry A*, artwork by Z. Paputungan.

Article was highlighted in *CERIC 2025 Scientific Highlights*, under the name: "Boosting Structural Stability in Zn-Ion Batteries thanks to Zn-Substituted Cathodes".

2024
Structural Evolution of Manganese Prussian Blue Analogue in Aqueous ZnSO4 Electrolyte

M. Li, M. Maisuradze, A. Mullaliu, I. Carlomagno, G. Aquilanti, J. R. Plaisier, M. Giorgetti, *Small*, 2024, vol. 20, n. 51 pp. 2404584, https://doi.org/10.1002/smll.202404584

Article was chosen for the cover page of *Small*, artwork by Z. Paputungan.

Article was highlighted in *Elettra Highlights 2024-2025.*

2024
Role of the Microstructure in the Li-Storage Performance of Spinel-Structured High-Entropy (Mn,Fe,Co,Ni,Zn) Oxide Nanofibers

C. Triolo, M. Maisuradze, Y. Liu, M. Li, G. Pagot, A. Ponti, V. Di Noto, G. Aquilanti, N. Pinna, M. Giorgetti, S. Santangelo, *J. Electrochem. Soc.*, 2024, vol. 171, p. 060509, https://doi.org/10.1149/1945-7111/ad51aa

2024
A Partially Ni-substituted MnHCF Cathode Material for Aqueous Zn-ion Batteries: The Electrochemical Performance and the Structural Modification

M. Maisuradze, M. Li, M. Gaboardi, G. Aquilanti, J. R. Plaisier, M. Giorgetti, *Advanced Materials Science and Technology,* 2024*,* vol. 6, n. 1, 0629615, https://doi.org/10.37155/2717-526X-0601-2

Article was highlighted in *CERIC 2024 Scientific Highlights*, under the name "X-ray techniques describe modifications in the cathode material of aqueous Zn-ion batteries".

2024
Aging Mechanism of Mn-based Prussian Blue Cathode Material by Synchrotron 2D X-ray Fluorescence

M. Maisuradze, M. Li, . Carlomagno, M. Gaboardi, G. Aquilanti, J. R. Plaisier, M. Giorgetti, *Batteries,* 2024, vol. 10, p. 123, https://doi.org/10.3390/batteries10040123

2023
2D X-ray fluorescence imaging as a probe for charge state distribution of manganese in aged MnHCF-based electrodes

M. Maisuradze, I. Carlomagno, A. Mullaliu, M. Li, G. Aquilanti, M. Giorgetti, *J. Phys. Chem. C*, 2023, vol. 127, n. 44, p. 21498, https://doi.org/10.1021/acs.jpcc.3c06061

Article was chosen for the cover page of *The Journal of Physical Chemistry C*, artwork by Z. Paputungan.

Article was highlighted in *Elettra Highlights 2023-2024*, under the name "Broadening the limits of 2D x-ray fluorescence via charge state detection: a battery material study"

2023
A Structural Perspective on Prussian Blue Analogues for Aqueous Zinc-Ion Batteries

M. Li, M. Maisuradze, R. Sciacca, I. Hasa, M. Giorgetti, *Batter. Supercaps*, 2023, vol. 6, n. 11, p. e202300340, https://doi.org/10.1002/batt.202300340

2023
Mapping Heterogeneity of Pristine and Aged Li- and Na-Mnhcf Cathode by Synchrotron-Based Energy-Dependent Full Field Transmission X-ray Microscopy

M. Maisuradze, M. Li, A. Mullaliu, A. Sorrentino, D. Tonti, S. Passerini, M. Giorgetti, *Small methods*, Aug. 2023, vol. 7, n. 11, p. 2300718, https://doi.org/10.1002/smtd.202300718

Article was chosen for the cover page of *Small methods*, artwork by Z. Paputungan.

2023
Charge Storage Mechanism in Electrospun Spinel-Structured High-Entropy (Mn0.2Fe0.2Co0.2Ni0.2Zn0.2)3O4 Oxide Nanofibers as Anode Material for Li-Ion Batteries

C. Triolo, M. Maisuradze, M. Li, Y. Liu, A. Ponti, G. Pagot, V. Di Noto, G. Aquilanti, N. Pinna, M. Giorgetti, S. Santangelo, *Small*, 2023, vol 19, n. 46, p. 2304585, https://doi.org/10.1002/smll.202304585

2023
Influence of Vacancies in Manganese Hexacyanoferrate Cathode for Organic Na-ion Batteries: A Structural Perspective

M. Li, M. Gaboardi, A. Mullaliu, M. Maisuradze, X. Xue, G. Aquilanti, J. R. Plaisier, S. Passerini, M. Giorgetti M. *ChemSusChem*, Feb. 2023, vol. 16, n. 12, e202300201, https://doi.org/10.1002/cssc.202300201

Article was highlighted in *Elettra Highlights 2022-2023*, under the name "Vacancy influence on manganese hexacyanoferrate Na-ion batteries: structural perspective";

Article was highlighted in *CERIC Report 2023*, under the name „Na-ion batteries: understanding molecular structure to explain performance"

2023
Characterization of partially Ni substituted manganese hexacyanoferrate cathode material

M. Maisuradze, M. Li, G. Aquilanti, J. Plaisier, and M. Giorgetti, *Mater Lett*, vol. 330, p. 133259, Jan. 2023, https://doi.org/10.1016/j.matlet.2022.133259

2022
Easy recovery of Li-ion cathode powders by the use of water-processable binders

A. Brilloni, F. Poli, G. E. Spina, C. Samorì, E. Guidi, C. Gualandi, M. Maisuradze, M. Giorgetti F. Soavi, *Electrochim. Acta*, 2022, vol. 418, p. 140376, https://doi.org/10.1016/j.electacta.2022.140376

2022
Symmetric Aqueous Batteries of Titanium Hexacyanoferrate in Na+ , K+ , and Mg2+ Media

M. Li, A. Bina, M.; Maisuradze, M. Giorgetti, *Batteries*, 2022, vol. 8, n. 1, p. 1, https://doi.org/10.3390/batteries8010001

2021
Electrochemical Performance of Manganese Hexacyanoferrate Cathode Material in Aqueous Zn-Ion Battery

M. Li, R. Sciacca, M. Maisuradze, G. Aquilanti, J. R. Plaisier, M. Berrettoni, M. Giorgetti, *Electrochim. Acta*, Dec. 2021, vol. 400, p. 139414, https://doi.org/10.1016/j.electacta.2021.139414

2019
Chromatographic and thermodynamic comparison of amylose tris(3-chloro-5-methylphenylcarbamate) coated or covalently immobilized on silica in high-performance liquid chromatographic separation of the enantiomers of select chiral weak acids

M. Maisuradze, G. Sheklashvili. A. Chokheli, I. Matarashvili, T. Gogatishvili, T. Farkas, B. Chankvetadze, *J Chromatogr A.* 2019, vol. 1602, pp. 228-236, https://doi.org/10.1016/j.chroma.2019.05.026

CONFERENCES AND SEMINARS

10/09/2025 – 12/09/2025 University of Bologna, Via Irnerio, 46, 40126 Bologna, Italy
21st Global Conference on Sustainable Manufacturing (GCSM)

- Part of Local Organising Team;
- M. Maisuradze, M. Li, S. Liu, J. R. Plaisier, M. Giorgetti, "Advancements in sustainable aqueous Zn-ion batteries via exploring new cathode & anode optimisation strategies", *oral presentation*.

Link https://gcsm.eu/

25/08/2025 – 29/08/2025 Poznan Congress Center, Głogowska 10, 60-734 Poznań, Poland
European Crystallographic Meeting (ECM35)

- M. Li, M. Maisuradze, M. Gaboardi, J. R. Plaisier, M. Giorgetti, "Advancements in sustainable aqueous Zn-ion batteries via exploring new cathode & anode optimisation strategies", *invited speaker*.

Link https://ecm35.ecanews.org/

01/07/2025 – 03/07/2025 University of Camerino, Via Madonna delle Carceri, 62032 Camerino, Italy
Networking and Knowledge Sharing Among Lithium Battery Scientists

- M. Maisuradze, "Spectroscopy, Electrochemistry and Energy Research Group", *oral presentation*.

05/05/2025 – 09/05/2025 Environment Park, Via Andrea Costaguta, 21/A, Torino, Italy
The Conference of Associazione Italiana di Scienza & Tecnologia (AIV) XXVII

- M. Maisuradze, M. Li, I. Carlomagno, G. Aquilanti, M. Giorgetti, "Exploring the aging mechanism of PBA cathode materials with post-mortem 2D x-ray fluorescence imagining", *oral presentation.*
- S. Liu, M. Maisuradze, M. Li, Q. Li, M. Giorgetti, "Metal–Organic Frameworks Layer Enhances the Performance of Zinc Anodes", *poster*.

Link https://www.aiv.it/it/aiv-xxvii-conference

28/04/2025 – 29/04/2025 Katholieke Universiteit Leuven, Oude Markt 13, 3000. Leuven
Symposium on Future Materials

- M. Maisuradze, M. Li, I. Carlomagno, G. Aquilanti, M. Giorgetti, "Unraveling Aging Mechanisms in Novel Battery Materials through Advanced X-ray Fluorescence Imaging", *oral presentation*.

Link https://www.una-europa.eu/calendar/symposium-on-future-materials-at-ku-leuven

01/09/2024 – 06/09/2024 Padova Congress, Via Niccolò Tommaseo #59, 35131, Padova, Italy
International Symposium on Beyond Li-Ion Batteries 2024 - BeLI24

- M. Maisuradze, M. Li, I. Carlomagno, G. Aquilanti, M. Giorgetti, "Post-mortem analysis of MnHCF-based cathode materials via synchrotron-based 2D X-ray fluorescence technique", *oral presentation*.

Link https://projects.dii.unipd.it/beli24/

30/05/2024 Polo Didattico del Navile, University of Bologna, Via della Beverara #123/1, Bologna, Italy
Research, Technological Transfer and Recruiting at Navile District

- M. Maisuradze, M. Giorgetti, "Investigating the Aging of the Battery Materials with X-ray Techniques", *poster*.

Link https://eventi.unibo.it/distretto-chimico-navile

07/02/2024 – 09/02/2024 Sapienza Università di Roma, Piazzale Aldo Moro, #5, 00185, Rome, Italy
Third Italian Workshop on Energy Storage (IWES2024)

- M. Maisuradze, M. Li, I. Carlomagno, A. Mullaliu, A. Sorrentino, G. Aquilanti, S. Passerini, D. Tonti, M. Giorgetti, "Inhomogenisation of the charge state distribution in the manganese hexacyanoferrate cathodes in Li/Na-ions batteries: A TXM and 2D-XRF study", *poster;*
- M. Li, M. Gaboardi, A. Mullaliu, M. Maisuradze, X. Xue, G. Aquilanti, J. R. Plaisier, S. Passerini, M. Giorgetti "Vacancy influence on manganese hexacyanoferrate Na-ion batteries: structural perspective", *oral presentation.*

Link https://www.giselnetwork.it/iwes-2024

30/08/2023 – 01/09/2023 Sapienza Università di Roma, Piazzale Aldo Moro, #5, 00185, Rome, Italy
SILS Conference 2023

- M. Maisuradze, M. Li, A. Mullaliu, A. Sorrentino, D. Tonti, S. Passerini, M. Giorgetti, “Investigation of Charge State Heterogeneity Inside MnHCF Cathode Material by Synchrotron-based Transmission Soft X-ray Microscopy”, *oral presentation*.

Link https://www.ba.ic.cnr.it/sils2023/

25/05/2023 Polo Didattico del Navile, University of Bologna, Via della Beverara #123/1, Bologna, Italy
Chemical District of Navile Presents Research, Technological Transfer and Recruiting

- M. Maisuradze, M. Giorgetti "S2E: Elettrochimica, Spettroscopia ed Energia", *poster*.

13/02/2023 – 17/02/2023 University of Bologna, Via della Beverara, 123/1, 40131, Bologna, BO, Italy
ASC Winter School 2023

- Part of "Organizing team";
- M. Maisuradze, "Alumnus Presentation", *oral presentation*.

Link https://site.unibo.it/asc-winter-school2023/it

09/10/2022 – 13/10/2022 Online
242nd Meeting of the Electrochemical Society (ECS)

- M. Maisuradze, M. Li, A. Mullaliu, A. Sorrentino, D. Tonti, S. Passerini, M. Giorgetti, “Post Mortem Microscopical and Selective Analysis of Manganese Hexacyanoferrate Cathode Material by Transmission Soft X-Ray Microscopy”, *digital presentation*;
- M. Giorgetti, M. Li, M. Maisuradze, R. Sciacca, “Dynamics in Prussian Blue Analogs-Based Batteries Revealed By X-Ray Techniques”, *keynote presentation*;
- M. Li, R. Sciacca, M. Maisuradze, G. Aquilanti, J. R. Plaisier, M. Berrettoni, M. Giorgetti “Electrochemistry and Structural Study of Manganese Hexacyanoferrate Cathode Material in Aqueous Zn-Ion Battery”, *digital presentation*.

Link https://www.electrochem.org/242

12/09/2022 – 15/09/2022 University of Trieste, via L. Giorgieri 1, 34127 Trieste, TS, Italy
The 4th Joint AIC-SILS Conference

- M. Maisuradze, M. Li, M. Gaboardi, J. R. Plaisier, M. Giorgetti, “Operando and ex-situ PXRD Study of Ni-doped Manganese Hexacyanoferrate Cathode Material in Aqueous Zn-ion Battery System”, *oral presentation*;
- M. Li, M. Gaboardi, A. Mullaliu, M. Maisuradze, G. Aquilanti, J. R. Plaisier, S. Passerini, M. Giorgetti, “Crystal structure study of manganese hexacyanoferrate cathode material in organic Na-ion battery by using XAS and XRD”, *flash presentation*.

Link https://eventi.mlib.ic.cnr.it/event/33/

11/06/2022 – 15/06/2022 University of Bologna, DAMS Lab, Piazzetta P. P. Pasolini, 5/b, 40122, Bologna, BO, Italy
The 7th edition of International Symposium on Enhanced Electrochemical Capacitors ISEECap 2022

- Part of the “Assistant stuff”;
- M. Maisuradze, M. Li, M. Gaboardi, J. R. Plaisier, M. Giorgetti, “Operando PXRD Study of Ni-doped Manganese Hexacyanoferrate Cathode Material in Aqueous Zn-ion Battery System”, *young scientist presentation*;
- M. Li, M. Maisuradze, M. Gaboardi, G. Aquilanti, J. R. Plaisier, M. Giorgetti “Operando synchrotron XAS/XRD Investigation of Zn Insertion into Manganese Hexacyanoferrate Cathode Material,” *poster*;

Link https://eventi.unibo.it/iseecap-2022

28/06/2022 – 29/06/2022 University of Modena and Reggio Emilia, Via Campi, 103 – 41125 Modena, MO, Italy
Hands-on Software

Workshop of "Commissione Strumentazione e Calcolo" by Associazione Italiana di Cristallografia (AIC)

Link https://handsonsoftware.wordpress.com/

17/12/2021 University of Ferrara, via Luigi Borsari #46, 4412, Ferrara, Italy
XX Giornata della Chimica dell'Emilia Romagna 2021 (GdC-ER 2021)

- M. Maisuradze, M. Li, A. Mullaliu, A. Sorrentino, D. Tonti, I. Carlomagno, G. Aquilanti, J. R. Plaisier, S. Passerini, M. Giorgetti, "Using TXM and 2D-XRF for the Identification of inhomogeneous State of Charge in Manganese Hexacyanoferrate Cathode Material,” *poster*;
- M. Li, M. Maisuradze, A. Bina, A. Mullaliu, S. Passerini, M. Giorgetti, “Electrochemical Study of Titanium Hexacyanoferrate in Organic and Aqueous Batteries,” *poster*.

Link http://scf.unife.it/it/news/xx-giornata-della-chimica-dell2019emilia-romagna-gdc-er-2021

25/10/2021 – 28/10/2021 Budapest Neutron Center, Konkoly-Thege Miklós street #29–33, 1121, Budapest, Hungary
14th Central European Training School (CETS 2021) on Neutron Techniques - Hands-on Training

Link https://www.bnc.hu/cets/

04/10/2021 – 08/10/2021 Online
14th Central European Training School (CETS 2021) on Neutron Techniques - Theoretical Module

- M. Maisuradze, M. Li, G. Aquilanti, J. K. Plaisier, M. Giorgetti, "Characterization of Pure and Nickel Doped Manganese Hexacyanoferrate Cathode Materials", *flash presentation*.

Link https://www.bnc.hu/cets/

14/09/2021 – 23/09/2021 Online
XXVII Congresso Nazionale della Società Chimica Italiana (SCI2021)

- M. Maisuradze , M. Li, A. Mullaliu, A. Sorrentino, D. Tonti, I. Carlomagno, G. Aquilanti, J. R. Plaisier, S. Passerini, M. Giorgetti, "Using TXM and 2D XRF for the identification of inhomogeneous state of charge in Manganese Hexacyanoferrate Cathode Material", *poster*;
- M. Li, R. Sciacca, M. Maisuradze, G. Aquilanti, J. Rikkert Plaisier, M. Berrettoni, M. Giorgetti, "XAS study of Manganese Hexacyanoferrate cathode material in aqueous Zn ion batteries at three K metal edges", *oral presentation*.

Link https://www.sci2020.org/

21/06/2021 – 23/06/2021 Mixed mode: online/University of Bologna, Via Zamboni #33, 40126, Bologna, Italy
The annual meeting of the Italian Synchrotron Radiation Society (SILS)

- Part of local organizing team (LOC);
- M. Maisuradze, M. Li, A. Mullaliu, A. Sorrentino, D. Tonti, I. Carlomagno, G. Aquilanti, J. R. Plaisier, S. Passerini, M. Giorgetti, "Identifying inhomogeneous state of charge of Manganese Hexacyanoferrate Cathode Material by Transmission Soft X-Ray Microscopy and 2D X-Ray Fluorescence Spectroscopy", *poster-presentation*.

Link https://www.lucedisincrotrone.it/wp-content/uploads/2021/06/SILS2021_Program.pdf

02/03/2020 – 06/03/2020 University of Helsinki, P.O. Box #64, FI-00014, Helsinki Finland
Winter School "Spectroscopy in Medical Application"

- M. Maisuradze, A. Khan, M. Li, M. Giorgetti, "X-Ray Fluorescence (XRF): Sample Size, Thickness and Sensitivity of Powder Samples", *poster*;
- A. Khan, M. Maisuradze, M. Li, M. Giorgetti, "Synthesis and Characterization of Defective Mn Hexacyanoferrate and Other Prussian Blue Material", *poster*.

Link https://wiki.helsinki.fi/display/AW2/ASC+Winter+School+2020

11/03/2019 – 15/03/2019 University of Leipzig, Johannisallee #29, 04103, Leipzig Germany
Winter School "Spectroscopy in Chemistry – New Techniques and New Applications"

20/08/2018 – 25/08/2018 Tbilisi State University, Ilia Tchavtchavadze Avenue #1, 0179, Tbilisi, Georgia
The 8th Georgian-German School and Workshop in Basic Science (GGSWBS), topic: "Science at multidisciplinary SMART|Labs in Georgia"

- M. Maisuradze, A. Chokheli, N. Kobakhidze, N. Khundadze, S. Pantsulaia, T. Khatiashvili, K. Kharaishvili, G. Jibuti, B. Chankvetadze, "Contamination Gradient For Air Pollutants In Time", *oral presentation*.

Link http://collaborations.fz-juelich.de/ikp/cgswhp/cgswhp18/

09/07/2018 – 13/07/2018 Tbilisi State University, Ilia Tchavtchavadze Avenue #3, 0179, Tbilisi, Georgia
The Sixth Student Conference in Exact and Natural Sciences

- M. Maisuradze, G. Sheklashvili, A. Chokheli, T. Gogatishvili, R. Kakava, B. Chankvetadze, "Determination of Thermodynamic Quantities of Enantioseparation of Selected Chiral Weak Acids on Chiralpak IG Column and Its Coated Analogue", *oral presentation*.

Link http://conference.sens-2018.tsu.ge/page/program/28

29/12/2017 Tbilisi State University, Ilia Tchavtchavadze Avenue #1, 0179, Tbilisi, Georgia
The 8-th Annual Conference of the Chair of Physical and Analytical Chemistry of Tbilisi State University

- M. Maisuradze, G. Sheklashvili, A. Chokheli, S. Pantsulaia, N. Khundadze, R. Kakava, B. Chankvetadze, "Calculation of Thermodynamic Parameters of Enantioseparation Using High-Performance Liquid Chromatography", *oral presentation*.

Link https://tsu.ge/ka/faculty/320/ზუსტ და საბუნებისმეტყველო მეცნიერებათა ფაკულტეტი/page/ფიზიკური-და-ანალიზური-ქიმიის-მე-8-ყოველწლიური-კონფერენცია

25/11/2017 Tbilisi State University, Ilia Tchavtchavadze Avenue #3, 0179, Tbilisi, Georgia
77th Student's Scientific Conference in Chemistry Department of Tbilisi State University

- M. Maisuradze, G. Sheklashvili, A. Chokheli, R. Kakava, B. Chankvetadze, "Calculation of Thermodynamic Parameters of Enantioseparation Using High-Performance Liquid Chromatography", *oral presentation*.

Link https://www.tsu.ge/data/file_db/PR/programa_28760.pdf

01/11/2017 Georgian National Academy of Science, Rustaveli Ave. #52, 0108, Tbilisi, Georgia
Scientific Conference of Young Chemists

- M. Maisuradze, G. Sheklashvili, A.Chokheli, R. Kakava, B. Chankvetadze, "Calculation of Thermodynamic Parameters of Enantioseparation Using High-Performance Liquid Chromatography", *oral presentation.*

Link https://old.tsu.ge/data/file_db/faculty_zust_sabunebismetk/moxsenebebi.pdf

11/09/2017 – 15/09/2017 Forschungszentrum Jülich; Wilhelm-Johnen-Straße, 52428, Jülich, Germany
QUALI-START-UP Science Lectures

Link https://www.fz-juelich.de/de/aktuelles/news/meldungen/archiv/2017/17-09-14-herbstschule-georgien?expand=translations,fzjsettings,nearest-institut

31/05/2017 Tbilisi State University, Ilia Tchavtchavadze Avenue #3, 0179, Tbilisi, Georgia
5th Georgian Workshop in Chemistry Department of Tbilisi State University

- M. Maisuradze, "Positron Emission Tomography", *oral presentation*.

28/12/2016 – 29/12/2016 Tbilisi State University, Ilia Tchavtchavadze Avenue #1, 0179, Tbilisi, Georgia
The 6-th Annual Symposium of the Chair of Physical and Analytical Chemistry at Iv. Javakhishvili Tbilisi State University

- M. Maisuradze, G. Sheklashvili, N. Shashviashvili, M.-L. Konjaria, R. Kakava, B. Chankvetadze, "Enantioseparation of chiral sulfoxides using polysaccharide-based chiral columns and polar organic mobile phases", *oral presentation*.

Link https://www.tsu.ge/data/file_db/PR/Program_65579.pdf

14/12/2016 Tbilisi State University, Ilia Tchavtchavadze Avenue #3, 0179, Tbilisi, Georgia
4th Georgian Workshop in Chemistry Department of Tbilisi State University

- M. Maisuradze, "Liquid Crystals", *oral presentation.*

25/05/2016 Tbilisi State University, Ilia Tchavtchavadze Avenue #3, 0179, Tbilisi, Georgia
3rd Georgian Workshop in Chemistry Department of Tbilisi State University

- M. Maisuradze, "Organic Additives in Perfume", *oral presentation*.

12/09/2016 – 16/09/2016 Tbilisi State University, Ilia Tchavtchavadze Avenue #1, 0179, Tbilisi, Georgia
Seasonal School: Chemical and Mathematical Aspects of Environmental (Atmosphere) Monitoring

Link https://old.tsu.ge/data/file_db/faculty_zust_sabunebismetk/Final Program1.pdf