# MLZ User Meeting 2024

## Friday 6 December 2024

**Poster Session (13:45 - 16:45)**

| [id] title | presenter | board |
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| **[72] Optimization Methods for Material Science** | ALAM, Saad | P-001 |
| **[112] Characterizing an electron plasma into a levitated dipole to understand future positron injection and creation of positron-electron plasma** | BAYER, Veronika | P-002 |
| **[128] PANDA - Cold TAS going thermal** | Dr BEDDRICH, Lukas | P-003 |
| **[116] A Scintillation Detector as a First Main Detector for PERC** | BERNERT, Karina | P-004 |
| **[126] Origins of polysaccharide conformation and viscoelasticity in miscible heterogeneous solvent** | Dr BORAH, Pallab Kumar | P-005 |
| **[85] NICOS: News and developments** | Mr BRANDL, Georg | P-006 |
| **[38] TUM Sample Environment: Preparing for user operation relaunch 2025** | BUCHNER, Andreas | P-007 |
| **[98] APEX-LD: a levitated dipole trap for the confinement of an electron-positron pair plasma** | CARD, Alexander | P-008 |
| **[49] Kinetics of nanostructural and interfacial evolution induced by photopolymerization for submicrometer additive manufacturing** | CHEN, Shouzheng | P-009 |
| **[44] Facet-dependent photovoltaic efficiency and stability variations in mixed Sn-Pb perovskite solar cells** | Ms CI, Xiaojing | P-010 |
| **[132] Commissioning of a polarized eV pulsed neutron beam and current mode gamma detector array at LANSCE** | DICKERSON, Kylie | P-011 |
| **[90] Structural studies of halide-based superionic Lithium conductors** | FALSINA, Francesco | P-012 |
| **[29] KWS-2 Extended Q-Range SANS Diffractometer: Cold vs. Thermal Neutron Use** | FANOVA, Anastasiia<br>RADULESCU, Aurel | P-013 |
| **[27] Texture of Hot-Compressed Metastable β-Titanium Alloy Ti5321 Studied by Neutron Diffraction** | Dr GAN, Weimin | P-014 |
| **[30] in hospice adaptation of photosynthetic membranes of Symbiodinium to rising seawater temperatures** | GARVEY, Christopher | P-015 |
| **[25] Resolution and sensitivity improvements in the detection of positrons using CMOS technology.** | GUATIERI, Francesco | P-016 |
| **[87] Biopolymer-Templated Deposition of Hierarchical 3D-Structured Graphene Oxide/Gold Nanoparticle Hybrids for Surface-Enhanced Raman Scattering** | GUO, Yingjian | P-017 |
| **[14] FIREPOD: A new thermal high-throughput powder diffractometer at MLZ** | HAUF, Christoph | P-018 |
| **[37] Electric field-assisted positron annihilation lifetime spectroscopy: Investigation of interface regions in thin-film Metal-Oxide-Silicon capacitors** | HELM, Ricardo | P-019 |
| **[56] High-efficiency diffractometer ERWIN** | HOELZEL, Markus | P-020 |
| **[7] Neutron Spin Echo Spectroscopy with the J-NSE "PHOENIX: recent scientific examples** | HOLDERER, Olaf | P-021 |
| **[97] Towards the development of polarization analysis with high energy resolution for SPHERES** | HUANG, Chuyi | P-022 |

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| **[131] Non-insulated ReBCO coils for the confinement of Electron-Positron Pair Plasmas** | HUSLAGE, Paul | P-023 |
| **[118] Physics-informed input representations for SANS patterns classification** | HÄUSLER, Stefan | P-024 |
| **[59] Structural analysis of cation mixing in NCA-type battery cathodes** | HÖLDERLE, Tobias | P-025 |
| **[95] Towards F.A.I.R. data: Research data management at JCNS** | IHSAN, Ahmad Zainul | P-026 |
| **[6] Sputter-Deposited TiOx Thin Film as a Buried Interface Modification Layer for Efficient and Stable Perovskite Solar Cells** | JIANG, Xiongzhuo | P-027 |
| **[53] Gas quenching process under ambient conditions for stable and efficient inverted perovskite solar cells** | JIN, Zhaonan | P-028 |
| **[39] The Resonant Spin-Echo Spectrometer RESEDA** | JOCHUM, Johanna | P-029 |
| **[117] Analysis of Neutron Diffraction Patterns for the Identification and Quantification of Crystalline Phases** | KADRI, Loubna | P-030 |
| **[123] NREX and TRISP upgrades** | KELLER, Thomas | P-031 |
| **[73] Status Report of the MEPHISTO Beamline** | KLENKE, Jens | P-032 |
| **[41] Influence of Azobenzene Moieties on the Swelling Behavior of Poly(Dimethylacrylamide) Films in Water Vapor under UV-Irradiation** | KOSBAHN, David | P-033 |
| **[70] EasyTexture: a new software for data reduction at POWTEX** | KOSHCHII, Oleksandr | P-034 |
| **[83] Temperature-dependent neutron diffraction and magnetic studies on magnesium ferrite (MgFe2O4) powder prepared via Sol-Gel auto-combustion method using DL-alanine fuel** | Dr KUMAR, Sudhanshu | P-035 |
| **[82] Liquefaction of Li-Mg-N-H hydrogen storage system by LiBH4 as a way to accelerate its dehydrogenation** | KUZNETSOVA, Anastasiia | P-036 |
| **[3] Suppressed degradation process of PBDB-TF-T1:BTP-4F-12 solar cells with solid additive EH-P** | LI, ZERUI | P-037 |
| **[115] Silicon detector for neutron beta decay measurements with PERC** | LEBERT, Manuel | P-038 |
| **[134] In situ synchrotron X-ray diffraction study of deformation behaviour of Ti-6Al-4V-Mo alloys manufactured using Laser Powder Bed Fusion** | LI, Guichuan | P-039 |
| **[78] Tracking degradation of non-fullerene organic solar cells under dynamic environmental conditions** | LI, Lixing | P-040 |
| **[100] Imaging from meV to MeV Neutrons combined with Gamma Imaging at the NECTAR Instrument** | LOSKO, Adrian | P-041 |
| **[40] MIEZEPY: An Open-Source Tool for Efficient MIEZE Data Reduction** | LYPOVA, Iryna | P-042 |
| **[8] REFSANS: The horizontal time-of-flight reflectometer with GISANS option at the Heinz Maier-Leibnitz Zentrum** | MANGIAPIA, Gaetano | P-043 |
| **[120] PALS of Hot-Rolled and Subsequently T4-Treated AlCu4Mg0.3Ag0.7** | MATHES, Lucian | P-044 |
| **[2] Focusing with a nested mirror optic on the thermal triple-axis spectrometer PUMA at MLZ** | MERRITT, Adrian | P-045 |
| **[45] Hot Neutron Single Crystal Diffraction on HEiDi: New Applications and Perspectives** | Dr MEVEN, Martin | P-046 |
| **[125] Transmission Electron Microscopy – complementary technique for Neutron Scattering** | MICHALSKA-WALKOWIAK, Joanna | P-047 |
| **[23] Micrometer positron beam at the Scanning Positron Microscope** | MITTENEDER, Johannes | P-048 |
| **[140] Impact of hydrogen on a polycrystalline CoNiCr-based superalloy** | Mr NAGEL, Oliver | P-049 |
| **[88] OSCARS: Taking science research to the next level** | NENTWICH, Melanie | P-050 |

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| **[114] Plans to characterize the NEPOMUC beam with a Retarding Field Analyzer** | NISSL, Stefan | P-051 |
| **[103] Design of a triple-cooling assembly for high purity germanium detectors for Coincidence Doppler Broadening Spectroscopy** | OBERLÄNDER, Patrick | P-052 |
| **[74] The Macromolecular Neutron Single Crystal Diffractometer BIODIFF for Proteins at the Heinz Maier-Leibnitz Zentrum MLZ** | Dr OSTERMANN, Andreas | P-053 |
| **[52] Unveiling the Kinetics of Block Copolymer Micelles Close Packing by In Situ GISAXS** | PAN, Guangjiu | P-054 |
| **[10] Challenges at the Li Metal/solid electrolyte interfaces for solid-state lithium batteries** | Dr PAUL, Neelima | P-055 |
| **[54] Heterogeneity of Lithium Distribution in the Graphite Anode of 21700-Type Cylindrical Li-Ion Cells during Degradation** | PETZ, Dominik | P-056 |
| **[106] KWS-3 Very Small Angle Neutron Scattering Diffractometer: current status** | Dr PIPICH, Vitaliy | P-057 |
| **[107] QtiSAS: SA(N)S data reduction and analysis platform.** | Dr PIPICH, Vitaliy | P-058 |
| **[11] 22Na-Sample Setup for Single-Specimen Coincidence Doppler Broadening Spectroscopy** | PROSSINGER, Roland | P-059 |
| **[105] Single crystal diffraction data reduction with OpenHKL** | RAZA, Zamaan | P-060 |
| **[36] Simultaneously fitting molecular dynamics simulations to neutron and X-ray diffraction and spectroscopy data with a bayesian approach** | Mrs REICH, Veronika | P-061 |
| **[130] CREScent: characterization and advances** | SAAVEDRA GARCÍA, Alberto José | P-062 |
| **[104] Light Yield Linearity of the BC-408 Plastic-Scintillator under Electron Excitation** | SCHILBERG, Johannes | P-063 |
| **[129] Application of Machine Learning in Event-Mode Neutron Imaging** | SCHMID, David | P-064 |
| **[57] High-resolution powder diffractometer SPODI** | SENYSHYN, Anatoliy | P-065 |
| **[50] Defect evolution in additively manufactured components with neutron grating interferometry (nGI)** | SINGH, Sapam Ningthemba | P-066 |
| **[66] Relocation of the cold triple axis spectrometer FLEXX to MLZ, Munich: Larmor diffraction and inelastic scattering** | SKOULATOS, Markos | P-067 |
| **[109] TOPAS: time-of-flight spectrometer with polarization analysis** | STEKIEL, Michal | P-068 |
| **[62] Chemical Analysis with Neutrons at MLZ** | Dr STIEGHORST, Christian<br>Dr REVAY, Zsolt | P-069 |
| **[47] DEVA - Data Evaluation Group** | Dr STIEGHORST, Christian<br>REBELO-KORNMEIER, Joana<br>Dr PAUL, Neelima | P-070 |
| **[76] DAPHNE Vision** | TRAGESER, Christian | P-071 |
| **[92] Towards FAIR data at MLZ** | TYMOSHENKO, Yuliia | P-072 |
| **[89] Mulitplexing TAS measurements assisted by active learning** | VITALE, Eugenio | P-073 |
| **[43] Temperature-resolved Crystal Structure of Ethylene Carbonate** | WESTPHAL, Lea | P-074 |
| **[32] TOFTOF – actual status and renewal concept** | WOLF, Marcell | P-075 |
| **[101] Mapping Scintillation Light Distribution of Individual Neutron Interactions in Scintillator Screens using LumaCam Detectors** | WOLFERTZ, Alexander | P-076 |
| **[4] A Small Amount of Sodium Difluoro(oxalate)borate Additive Induces Anion-Derived Interphases for Sodium-Ion Batteries** | XIA, Lan | P-077 |

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| **[110] New options on the polarized neutron single crystal diffractometer POLI at MLZ** | XU, Jianhui<br>Dr HEINZE, Leonie | P-078 |
| **[60] Crosslinking mechanisms in solutions of alginate-based graft copolymers with thermoresponsive side chains** | XU, Wenqi | P-079 |
| **[17] Poly(acrylic acid) locally enriched in slurry enhances the electrochemical performance of the SiOx lithium-ion battery anode** | YANG, Ming | P-080 |
| **[84] SECoP: The Sample Enviroment Communication Protocol** | ZAFT, Alexander | P-081 |
| **[5] Revealing the effect of solvent additive selectivity on formation kinetics in printed active layers for organic solar cells** | ZHANG, Jinsheng | P-082 |
| **[28] Insights into the Cyclability of LiF-Coated LiNi0.9Co0.05Mn0.05O2 Cathodes in Sulfide-Based All-Solid-State Batteries** | ZHANG, Ziyan | P-083 |
| **[19] Multipoint Anionic Bridge: Asymmetric Solvation Structure Improves the Stability of Lithium-Ion Batteries** | Mr ZHENG, Tianle | P-084 |
| **[22] Towards transferable force fields for simulating biological membranes** | ZHOU, zihan | P-085 |
| **[119] Annihilation-gamma spectra of magnetically confined positrons scattering, cooling, and forming positronium** | VON DER LINDEN, Jens | P-086 |