Session Program

8–10 Dec 2020

MLZ User Meeting & German Neutron Scattering Conference 2020

Joint poster session of MLZ User Meeting and DN2020

Online event

Wednesday 9 December

14:30

Joint poster session of MLZ User Meeting and DN2020

Poster Session | **Location:** Online event

The Materials Science group at Heinz Maier-Leibnitz Zentrum (MLZ)

Speaker
Dr Ralph Gilles

Progress of the MEPHISTO beamline

Speaker
Dr Jens Klenke

Neutron diffraction study of the in-situ tension deformation behaviour of SiCp/Mg-Zn composite

Speaker
Weimin Gan

In-situ sputter deposition of Al electrodes on active layers of non-fullerene organic solar cells

Speaker
Ms Xinyu Xinyu Jiang

Identification of Vacancy Defects in Lead Halide Perovskites

Speaker
David Keeble

Surface distortion of Fe dot-decorated TiO2 nanotubular templates using time-of-flight grazing incidence small angle scattering

Speaker
Amitesh Paul

Localized strain induced abnormal growth of cube oriented grain in a graphene nanosheets (GNS) reinforced copper matrix composite

Speaker
Hailong Shi

Co-Nonsolvency Transition of PNIPMAM-based Block Copolymer Thin Films in Water/Acetone Mixtures

Speaker
Peixi Wang

Phase Transformation in AlTiNbVW High Entropy alloy

Speaker
Xiaohu Li

Highly ordered titania films with incorporated germanium nanocrystals annealed in different atmospheres for photoanodes

Speaker
Nian Li

In Operando Neutron Reflectometry Study of SEI Formation on Lithium Metal Anodes Modified with PS-b-PEO Thin Films

Speaker
Mr Suzhe Liang

Temperature-dependent Phase Behavior of the Thermoresponsive Polymer Poly(N-isopropylmethacrylamide) in Aqueous Solution

Speaker
Chia-Hsin Ko

Influence of the scanning strategy on the residual stress state in IN 718 additive manufactured parts

Speaker
Dr Itziar Serrano-Munoz

The effect of CsBr doping on the crystallization kinetics of perovskite films

Speaker
yuqin zou

Feasible tuning of microstacking structure and oxidation level in PEDOT: PSS thin films via sequential post-treatment

Speaker
Suo Tu

Printed block copolymer templated ZnO photoanodes for photovoltaic applications

Speaker
Ting Tian

Precursor engineering of two-step slot-die coated perovskite layers by TBP, MAI and DMSO addition

Speaker
Oleg Shindelov

Separation of the Formation Mechanisms of Residual Stresses in LPBF 316L

Speaker
Alexander Ulbricht

Micromechanical response of multi-phase Al-alloy matrix composites under uniaxial compression

Speaker
Sergei Evsevleev

Morphology investigation of printed active layers of hybrid solar cells with grazing incidence neutron and x-ray scattering techniques

Speaker
Volker Körstgens

Neutron imaging for the investigation of the lyophilisation of amorphous bulk solids

Speaker
Petra Foerst

LLZO: Al, Ta, Nb, W – different dopants and their effect on microstructure and lithium diffusion

Speaker
Charlotte Fritsch

Micromechanics near the yield point of Nickel based superalloys

Speaker
Mr Jonas von Kobylinski

In situ neutron dilatometry investigation of βo→β phase transformation in TiAl alloys

Speaker
Victoria Kononikhina

Following the interface formation during sputter deposition on perovskite films

Speaker
Lennart Reb

Structured graphite anodes for Li-ion batteries

Speaker
Ivana Pivarníková

Rotational and long range diffusion in a lithium amide–lithium borohydride mixture

Speaker
Neslihan Aslan

Enhancing the High-Temperature Strength of a Co-Base Superalloy by Optimizing the y/y' Microstructure

Speaker
Daniel Hausmann

Magnetic scattering of polarized neutrons on structures of reduced graphene oxide embedded in the polystyrene matrix

Speaker
Alexander Bugrov

Liquid dynamics of phase-change materials

Speaker
Prof. Shuai Wei

Angular Distribution of Neutrons Around Thick Beryllium Target of Accelerator-Based 9Be(d, n) Neutron Source

Speaker
Mr Abdullah Shehada

The cold neutron imaging beam line ANTARES

Speaker
Michael Schulz

Current Status of PERC

Speaker
Mr Manuel Lebert

3D-printed humidity chamber for neutron scattering on thin films

Speaker
Tobias Widmann

A new high resolution detector system at ANTARES

Speaker
Yiyong Han

A tensile rig for neutron imaging

Speaker
Simon Sebold

Neutron Depth Profiling at the PGAA facility of MLZ

Speaker
Robert Neagu

Quantum cascade laser-based infrared spectrometer combined with small angle neutron scattering for life science applications

Speaker
Dr Tobias Schrader

CHARM – A fast, high resolution curved 3He-based Multiwire- Proportional Chamber for the powder diffractometers DMC and ERWiN

Speaker
Dr Karl Zeitelhack

URANOS - a voxel engine Neutron Transport Monte Carlo Simulation

Speaker
Dr Markus Köhli

Nested Optic for Neutron Focusing

Speaker
Christoph Herb

Event-Mode Imaging for Improved Spatial Resolution in Fast Neutron Imaging

Speaker
Mr PRABHA SHANKAR -

Neutron guides and Ni/Ti multilayer supermirror coatings by the FRM II Neutron Optics group

Speaker
Jose Manuel Gomez Guzman

POWTEX – Angular- and Wavelength Dispersive, High-Intensity Neutron TOF Diffractometer

Speaker
Yannick Meinerzhagen

DNS - diffuse neutron scattering spectrometer at MLZ

Speaker
Thomas Mueller

Technical design of a levitated dipole for confinement of a low-temperature, long-lived, electron-positron plasma

Speaker
Alexander Card

Injection of positrons into an electron space charge in a dipole field

Speaker
Markus Singer

A buffer-gas trap for the NEPOMUC high-intensity low-energy positron beam

Speaker
Adam Deller

PMMA-b-PNIPAM thin films display cononsolvency driven response in mixed water-methanol atmospheres

Speaker
Christina Geiger

Water dynamics in a concentrated aqueous solution of perdeuterated poly(N-isopropylacrylamide) across the cloud point

Speaker
Ms Bahar Yazdanshenas

Phase transition kinetics in a doubly thermo-responsive poly(sulfobetaine)-based block copolymer thin film

Speaker
Lucas Kreuzer

Studying the dynamics of PTB7:PCBM blend films with quasielastic neutron scattering

Speaker
Dominik Schwaiger

Structural Properties of Micelles formed by Telechelic Pentablock Quaterpolymers with pH-responsive Midblocks and Thermoresponsive End Blocks in Aqueous Solution

Speaker
Mr Florian A. Jung

Dehydration of thermoresponsive molecular brushes with block or random copolymer side chains

Speaker
Jia-Jhen Kang

The relevance of protein dynamics for protein folding: The case of apomyoglobin

Speaker
Andreas Stadler

KWS-2 the high Intensity / wide Q-range SANS diffractometer

Speaker
Christian Lang

Stimuli-Responsive Micelles from Amphiphilic Diblock Copolymers

Speaker
Yanan Li

A GISANS study of bio-hybrid films: Influence of pH on spray-coated ß-lactoglobulin:TiO2 film morphology for bio-templated titania nanostructures

Speaker
Julian Eliah Heger

Influence of benzocaine, propranolol and cholesterol on phospholipid bilayers

Speaker
Gaetano Mangiapia

Spray deposited anisotropic magnetic hybrid thin films containing PS-b-PMMA and strontium hexaferrite magnetic nanoplates

Speaker
Mr Wei Cao

Translocation of non-ionic synthetic polymers through lipid membranes

Speaker
Ekaterina Kostyurina

SPUTTER DEPOSITION OF SILVER ON NANOSTRUCTURED PMMA-b-P3HT COPOLYMER THIN FILMS

Speaker
Marc Gensch

Morphology control of PS-b-P4VP templated monolayer mesoporous Fe2O3 thin films

Speaker
Shanshan yin

Conductivity stability of EMIM-DCA post-treated semi-conducting PEDOT:PSS polymer thin films under elevated temperatures

Speaker
Anna-Lena Oechsle

Curvature effects on the stability of lipid bicontinuous cubic phase films interacting with gold nanoparticles

Speaker
Andrea Ridolfi

Cononsolvency-Induced Collapse Transitions in Thin PMMA-b-PNIPAM and PMMA-b-PNIPMAM Films

Speaker
Julija Reitenbach

KWS-3 very small-angle neutron scattering focusing diffactometer at MLZ

Speaker
Vitaliy Pipich

Establishing deuteration services for MLZ users at the JCNS

Speaker
Lisa Fruhner

DMPC-glycyrrhizin model membranes in the absence and presence of cholesterol: From small unilamellar vesicles to flat disc structures

Speaker
Friederike Gräbitz-Bräuer

Multiple Length Scales Hydration in Polymer Membranes for Fuel Cells

Speaker
Dr Aurel Radulescu

Nano-Structure Development of Oral Pharmaceutical Formulations in Simulated Intestine – D-contrast SANS and DLS

Speaker
Thomas Nawroth

Development of an indirect spectrometer Mushroom

Speaker
Mr Ran Tang

KOMPASS – the polarized cold neutron triple-axis spectrometer at the FRM II

Speaker
Dr Dmitry Gorkov

Phonon renormalization in LaCoO$_3$

Speaker
Frank Weber

Thin film growth by Molecular Beam Epitaxy for MLZ users

Speaker
Sabine Pütter

High-resolution powder diffractometer SPODI

Speaker
Markus Hoelzel

Estimation of lithiated cathode loss for cycled 18650-type battery by in situ neutron powder diffraction

Speaker
Jiangong Zhu

Nondestructive determination of Li concentration and distribution in prismatic Li-ion battery

Speaker
Volodymyr Baran

Distortions and Superstructure in Inverse Perovskite Nitrides

Speaker
Lukas Link

In Situ Printing: Insights into the Morphology Formation and Optical Property Evolution of Slot-Die-Coated Active Layers Containing Low Bandgap Polymer Donor and Nonfullerene Small Molecule Acceptor

Speaker
Kerstin Wienhold

MIEZETOP for the cold triple axis spectrometer (TAS) MIRA

Speaker
Henrik Gabold

Hot Neutron Diffraction Experiments under Extreme Conditions on Single Crystals with HEiDi

Speaker
Dr Martin Meven

Hybrid high performance computing to covert the molecular Dynamics simulation to neutron and x-ray data

Speaker
Mr Arnab Majumdar

Commissioning of the ‘Energy research with Neutrons’ option at MLZ.

Speaker
Michael Heere

Validating Molecular Dynamics Computer Simulations with Neutron Scattering Data

Speaker
Veronika Reich

Low-Energy Positron Beam for Near-Surface Doppler-Broadening Spectroscopy

Speaker
Lucian Mathes

Morphology of fullerene-free bulk heterojunction blends for photovoltaic applications

Speaker
Sebastian Grott

Complementarity of PNR and XMCD for monolayer-magnetism in hetero-epitaxial Fe on Cu(001)

Speaker
Dr Amitesh Paul

PUMA: thermal three-axes spectrometer equipped with multi-analyzer and unique polarization option

Speaker
Jitae Park

KWS-1 SANS instrument with polarization analysis

Speaker
Dr Artem Feoktystov

REFSANS: The horizontal time-of-flight reflectometer with GISANS option at the Heinz Maier-Leibnitz Zentrum

Speaker
Gaetano Mangiapia

Germanium-based nanostructure synthesis guided by amphiphilic diblock copolymer templating

Speaker
Christian L. Weindl

CSPEC- a cold time of flight spectrometer for the ESS

Speaker
Wiebke Lohstroh

The Myelin Basic Protein and its Phase Behaviour

Speaker
Igor Graf von Westarp

Oscillatory dynamics in simple systems at elevated temperatures -- beyond a perturbational treatment of anharmonicity

Speaker
Michael Leitner

The strengths of small-angle neutron scattering for magnetic nanoparticle characterization

Speaker
Mathias Bersweiler

TOFTOF – cold neutron time-of-flight spectrometer

Speaker
Marcell Wolf

Incommensurate magnetic systems studied with the three-axis spectrometer MIRA

Speaker
Robert Georgii

Thermal effects on nanoscale morphologies and chemical group vibrations of thermoresponsive double hydrophilic block copolymers in aqueous solutions

Speaker
Dr Apostolos Vagias

Macromolecular Neutron Diffraction at the Heinz Maier-Leibnitz Zentrum MLZ

Speaker
Andreas Ostermann

The Coincidence Doppler-Broadening Spectrometer at NEPOMUC

Speaker
Vassily Vadimovitch Burwitz

The resonant neutron spin echo spectrometer RESEDA

Speaker
Johanna K. Jochum

Magnons in the collinear antiferromagnetic phase of Mn5Si3

Speaker
Dr Nikolaos Biniskos

Probing the complex loading-dependent structural changes in ultrahigh drug-loaded polymer micelles by small-angle neutron scattering

Speaker
Benedikt Sochor

Covid-19 related research opportunities at the MLZ

Speaker
Marialucia Longo

Conformational and Characteristic Modulation of Prothymosin Alpha following the Addition of Guanidinium Chloride investigated with X-ray / Neutron Scattering Techniques

Speaker
Luman Haris

Utilizing very low flux nuclear reactors for neutron imaging

Speaker
Rico Hübscher

High-resolution spectroscopy and diffraction at TRISP

Speaker
Dr Keller Thomas

Multimodal Imaging from meV to MeV Neutrons combined with Gamma Imaging at the NECTAR Instrument

Speaker
Dr Adrian Losko

Cryo-TEM – A Complementary Technique for Neutron Scattering

Speaker
Marie-Sousai APPAVOU

The Robot Positioning System at the Materials Science Diffractometer STRESS-SPEC

Speaker
Martin Landesberger

Evolution of the structure and dynamics of bovine serum albumin induced by thermal denaturation

Speaker
Olga Matsarskaia

Effect of the protein size on the diffusion of proteins in a cell-like environment - first results from BATS

Speaker
Christian Beck

Phase analysis of steel using neutron grating interferometry and bragg edge imaging

Speaker
Tobias Neuwirth

Boron-lined tubes and readout electronics for low count-rate environments

Speaker
Markus Köhli

New analysis frameworks for the analysis of inelastic measurements from neutron backscattering spectrometers

Speaker
Christian Beck

Short-Time Self-Diffusion of Salt- and Temperature-Dependent Protein Clusters

Speaker
Tilo Seydel

Out-of-equilibrium processes during phase transitions: An in-situ crystallization study of hybrid perovskites

Speaker
Shambhavi Pratap

The Absolute Direction of the Dzyaloshinskii-Moriya Interaction in Hematite Determined by Polarized Neutron Diffraction

Speaker
Mr Henrik Thoma

In situ light scattering techniques at neutron instruments at the MLZ - experiences made and challenges ahead

Speaker
Dr Tobias E. Schrader

Comparison of guide systems for instruments at the high brilliance source (HBS)

Speaker
Zhanwen Ma

Structure and dynamics of polyelectrolytes in water solution

Speaker
Ekaterina Buvalaia

NREX - neutron reflectometer with X-ray option

Speaker
Yury Khaydukov

Development of a Sample Environment for in-situ Dynamic Light Scattering in Combination with Small Angle Neutron Scattering for the Investigation of Soft Matter at the European Spallation Source

Speaker
Lars Wiehemeier

The small-angle scattering instrument SANS-1 at MLZ

Speaker
Sebastian Muehlbauer

FLUKA and MCNP simulation benchmark for neutron yield measurement in HBS project

Speaker
Mr Jiatong Li

The SoNDe high-flux neutron detector

Speaker
Sebastian Jaksch

Magnetic dynamics in the single-domain state of the cubic helimagnet ZnCr2Se4

Speaker
Dmytro Inosov

The high resolution neutron backscattering spectrometer SPHERES

Speaker
Michaela Zamponi

Bambus: introducing a new inelastic neutron multianalyser for Panda at MLZ

Speaker
Alistair Cameron

Microstructural characterization of European historical swords through neutron imaging

Speaker
Francesco Grazzi

Influence of salt (NaCl) on structure and dynamics of phospholipid membranes

Speaker
Sebastian Jaksch

Monte Carlo simulation and optimization for the micro-channel target of the HBS project

Speaker
Ms Qi Ding

In-situ RheoSAXS: Relating Nanostructure to Macroscopic Properties Using A Laboratory Setup

Speaker
Jiri Kislinger

Towards Polarization Analysis for TOPAS

Speaker
Christian Franz

MARIA – The high-intensity polarized neutron reflectometer of JCNS

Speaker
Alexandros Koutsioumpas

Field Dependence of Magnetic Disorder in Nanoparticles

Speaker
Dominika Zakutna

Engineering of the thermal moderator for a Compact Accelerator driven Neutron Source (CANS)

Speaker
Ulrich Rücker

Structure of Composite Materials of pNIPAM Brushes and Magnetic Nanoparticles

Speaker
Philipp Ritzert

Manufacturing a safer world: Residual Stress in AM determined by diffraction techniques

Speaker
Dr Alexander Evans

The Fierz interference term and recent PERKEO III measurements

Speaker
Max Lamparth

Impact of ethylenediaminetetraacetate ligands on CdS nanoparticle formation mechanism

Speaker
Mr Mirco Eckardt

Neutron yield measurements for Be, V and Ta targets from 22-42 MeV proton beams

Speaker
Marius Rimmler

PANDA - the cold neutron TAS at MLZ

Speaker
Astrid Schneidewind

Replacing MultiView and LabView with NICOS

Speaker
Petr Čermák

An insight into the local structure and dynamics of A2Zr2O7

Speaker
Ms Kristina Vlášková

Pharmaceutical Drug Carriers organized in Nano-Domains – Study and Design upon Neutron Scattering with contrast variation, SAXS and DLS

Speaker
Dr Thomas Nawroth

Sample Environment at MLZ

Speaker
Dr Alexander Weber

The new Total Reflection High-Energy Positron Diffractometer at NEPOMUC

Speaker
Mr Matthias Dodenhöft

Calibration of p-XRF on ancient pottery using NAA results

Speaker
Michaela Schauer

A study of Linear and Nonlinear Aging in Lithium-Ion Cells by Neutron Diffraction

Speaker
Neelima Paul

Fabrication on Plasmonic Nanostructures in Photoelectronic Devices

Speaker
Mr Tianfu Guan

In-situ neutron diffraction studies on micro- and macrostrains in Ni-base superalloys

Speaker
Frank Kuemmel

Non-destructive quantification of lithium and electrolyte losses in Li-ion batteries using neutron powder diffraction

Speaker
Dominik Petz

Tracking the formation of MAPbI3 by in situ GIWAXS

Speaker
Manuel Scheel

In-situ high temperature precipitation study in new alloy VDM 780 using SANS

Speaker
Cecilia Solis

Wearable smart skin based on triboelectric nanogenerator and CdSe/CdS quantum rods for pressure and tensile sensing

Speaker
Mr TIANXIAO XIAO

The zero step for degrading perovskite solar cells: What atmosphere should we choose?

Speaker
Renjun Guo

Chemical analysis with neutrons at MLZ

Speaker
Dr Zsolt Révay

18:00