| | Hotel buffet dinner (18:00-21:00) May 30 (Thursday) Morning Session 08:00~ | 12:15 | | |
|--|--|-----------------------|------------------|--|
| Time | Agenda | Reporter | Session Chair | |
| 08:00~08:20 Opening ceremony, Guests Introduction, and Speeches by Leaders of Xiamen University | | | Guang Ran | |
| 08:20~08:35 | -08:35 Photography for group photo | | | |
| 08:35~09:00 | Enabling Rapid Qualification of Advanced Reactor Core Materials with Ion Irradiation | Gary Was | | |
| 09:00~09:25 | A Perspective on the Role of In-Situ TEM for Improved Understanding of Irradiation Effects in Materials | Steven Zinkle | Lumin Wang | |
| 09:25~09:50 | Multiscale modelling platform of materials under neutron irradiation - Role of in-situ TEM on the platform development | Guanghong Lu | | |
| 09:50~10:15 | Using In-Situ Transmission Electron Microscopy to Characterize the Microstructure Evolution Under Irradiation: Research highlights from the "MATerials Under Reactor Extremes" (MATURE) research group at NCSU | Djamel Kaoumi | | |
| 10:15~10:35 | Coffee break | | | |
| 10:35~11:00 | The Study of Irradiation-Induced Nanostructure Patterning with in situ TEM | Lumin Wang | Guanghong | |
| 11:00~11:25 | Effects of damage and dose rate on α' phase formation in oxide dispersion strengthened FeCrAl alloys under Fe ion irradiation studied using in-situ transmission electron microscopy | Jonathan Hinks | | |
| 11:25~11:50 | Microstructural characterization of irradiated ferritic/martensitic steels after irradiation at Swiss Spallation Neutron Source | Yong Dai | Lu | |
| 11:50~12:15 | Evaluation of hydrogen and helium retention behavior in fusion reactor materials using in-situ TEM-QMS | Mitsutaka Miyamoto | | |
| 12:15~14:00 | Lunch break | | | |
| | Afternoon Session 14:00~18:00 | | | |
| 14:00~14:25 | The Vision for Tennessee In-situ Ion Irradiation STEM | Khalid Hattar | Vugang | |
| 14:25~14:50 | Unveiling the Microstructural Evolution in Zirconium Alloys Through In-Situ Transmission Electron Microscopy under Irradiation | Zhongwen Yao | Yugang Wang | |

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Schedule

| 14:50~15:15 | Nature of Nano-scale Defect Clusters Under Irradiation: Computer Simulations versa Experimental Observations | Fei Gao | |
|-------------|--|---------------------|----------|
| 15:15~15:40 | The <i>in situ</i> dual ion beam TEM at JANNuS- Orsay: description of the facility, recent updates and results | Aurélie Gentils | |
| 15:40~15:55 | Sample holders for <i>in situ</i> TEM with ions | Cedric Baumier | |
| 15:55~16:15 | Coffee break | | |
| 16:15~16:30 | Using in-situ TEM to study the irradiation- induced defects in high-purity palladium (Pd) | Yipeng Li | |
| 16:30~16:55 | In-situ Irradiation Facility at Xiamen University in China | Jinchi Huang | Yong Dai |
| 16:55~17:20 | Irradiation damage in sintered SiC irradiated by He ions | Bingsheng Li | |
| 17:20~17:45 | Using Proton Irradiation to Study Stress and Temperature Dependence of Irradiation Creep | Mark Daymond | |
| 17:45~18:00 | Development of engineered nano-nuclear materials using particle beam linked Electron Microscopy | Liviu Popa-Simil | |
| 18:00~20:00 | Banquet | | |
| | May 31 (Friday) Morning Session 08:00~12 | 2:05 | |
| Time | Agenda | Reporter | Host |
| | Application perspectives of TFM with ion | | |

| Time | Agenda | Reporter | Host |
|-------------|--|----------------|-----------------|
| 08:00~08:25 | Application perspectives of TEM with ion irradiation on the study of tungsten fiber reinforced tungsten Materials | Juan Du | |
| 08:25~08:50 | The influence of local chemical order on the radiation behavior of high entropy alloys | Chenyang Lu | |
| 08:50~09:15 | Coupled effect of Cr and Al on interactions between a prismatic interstitial dislocation loop and an edge dislocation line in Fe-Cr-Al alloy | Ning Gao | Fei Gao |
| 09:15~09:40 | Utilizing Cluster Dynamics Modeling to Interpret TEM Observations of In-situ and Ex-situ Irradiation | Xunxiang Hu | |
| 09:40~10:05 | Atomistic simulations of the clustering of vacancy and rhenium in Mo-Re alloys | Lu Sun | |
| 10:05~10:25 | Coffee break | | |
| 10:25~10:50 | High-entropy complex ceramics under in-situ irradiation | Chenxu Wang | Zhongwor |
| 10:50~11:15 | In-situ TEM observation of microstructure evolution in Mo-Re alloy under Fe ⁺ irradiation | Xi Qiu | Zhongwen Yao |
| 11:15~11:40 | Research on the micro-deformation mechanisms and irradiation effects of high-entropy thin films | Li Jiang | |

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| 11:40~12:05 | Computer simulation and modeling of radiation effects | Dan Sun | |
|-------------|---|------------------|----------------|
| 12:05~14:00 | Lunch break | | 1111 |
| | Afternoon Session 14:00~18:00 | | |
| 14:00~14:15 | TEM characterization of dislocation loops in post- irradiated and in-situ irradiated pure Cr | Lijuan Cui | |
| 14:15~14:30 | Precipitation behavior of Mo-Re alloy under ion irradiation with 20 MeV nickel ions at a dose level of 140 dpa at 580°C | Hongtao Huang | Ning Gao |
| 14:30~14:45 | Combined irradiation study of radiation damage | Liang chen | |
| 14:45~15:00 | Combined Irradiation Method for In-situ and Ex- situ Study of Radiation Defect Evolution in Alloys | Dongyue Chen | |
| 15:00~15:15 | Concurrent effect of hydrogen and irradiation in Zr-based alloy | Huilong Yang | Xunxiang Hu |
| 15:15~15:30 | Void evolution mechanisms under in situ TEM heavy-ion irradiation environment | Cuncai Fan | |
| 15:30~15:45 | Modelling of the fission gas swelling for UO ₂ fuel in PWR | Yi Zhou | |
| 15:45~16:00 | The synergetic effect of He and Kr irradiation on helium bubble evolution in SiC/SiC composite: Combining in-situ TEM observation with MD simulation | Ce Zheng | |
| 16:00~16:20 | Coffee break | | |
| 16:20~16:35 | Effect of post-treatments on radiation damage of additively manufactured 316L stainless steels | Miao Song | Chenyang Lu |
| 16:35~16:50 | Synergistic effects between He bubbles and Mg in the silicon carbide materials | Min Liu | |
| 16:50~17:05 | Radionuclide Tracing Based in situ Corrosion and Mass Transport Monitoring of 316L Stainless Steel in a Molten Salt Closed Loop | Yafei Wang | |
| 17:05~17:20 | In Situ and Ex Situ TEM Study of Microstructural Evolution in Hollandite Ceramics under Ion Irradiation | Yuhan Li | Yue Yuan |
| 17:20~17:35 | Deuterium-helium mixed plasma irradiation on surface modification of ZrC dispersion-strengthed tungsten | Ze Chen | |
| 17:35~17:50 | Theoretical investigation of positron annihilation spectroscopy of neutron irradiated CrMnFeNi high entropy alloy | Congyi Li | |
| 17:50~18:00 | Closing remarks | | |
| 18:00~20:00 | Hotel buffet dinner | | |
| | June 1 (Saturday) Departure | | |