

Reactor Graphite Workshop



Report of Contributions

Contribution ID: 1

Type: **not specified**

BNL Welcome

Tuesday 8 July 2025 09:00 (10 minutes)

Presenter: SONZOGNI, Alejandro (BNL)

Session Classification: Welcome

Contribution ID: 2

Type: **not specified**

Workshop Goals

Tuesday 8 July 2025 09:10 (15 minutes)

Presenters: BROWN, Dave; NOBRE, Gustavo (BNL)

Session Classification: Welcome

Contribution ID: 3

Type: **not specified**

Qualifying Graphite for Reactor Applications: A Materials Perspective

Tuesday 8 July 2025 09:25 (30 minutes)

Presenter: PIEDMONT, Dominic (BNL)

Session Classification: Material Characterization

Contribution ID: 4

Type: **not specified**

Discussion about material characterization

Tuesday 8 July 2025 09:55 (30 minutes)

Presenter: ALL

Session Classification: Material Characterization

Contribution ID: 5

Type: **not specified**

NNL Perspective of Reactor-grade Graphite

Tuesday 8 July 2025 10:40 (20 minutes)

Presenter: ZERKLE, Mike (NNL)

Session Classification: Users' Perspectives

Contribution ID: 6

Type: **not specified**

Updates to the HTR-PROTEUS HALEU Benchmark Using Modern Analysis Methodologies

Tuesday 8 July 2025 11:00 (30 minutes)

Presenters: ORTENSI, Javier (INL); BESS, John (INL); SEKER, Volkan (INL)

Session Classification: Users' Perspectives

Contribution ID: 7

Type: **not specified**

Thermal Scattering Law Impact on BWXT Advanced Nuclear Reactor

Tuesday 8 July 2025 11:30 (30 minutes)

Presenters: LAWING, Chase (BWXT); LENTCHNER, Gabriel (BWXT); NASH, Matthew (BWXT)

Session Classification: Users' Perspectives

Contribution ID: 8

Type: **not specified**

Discussion about users' perspectives

Tuesday 8 July 2025 13:20 (30 minutes)

Presenter: ALL

Session Classification: Users' Perspectives

Contribution ID: 9

Type: **not specified**

Physics of Phonons in Graphite: Integrating Inelastic Neutron Scattering Measurements and First-Principles Calculations

Tuesday 8 July 2025 13:50 (30 minutes)

Presenter: AL-QASIR, Iyad (ORNL)

Session Classification: Differential Data, Modeling and Evaluation

Contribution ID: **10**

Type: **not specified**

Machine learned atomistic modeling of porosity in nuclear graphite

Tuesday 8 July 2025 14:20 (20 minutes)

Presenter: RAMIC, Kemal (ORNL)

Session Classification: Differential Data, Modeling and Evaluation

Contribution ID: **11**

Type: **not specified**

Investigation and Evaluation of Thermal Neutron Scattering in Nuclear Graphite

Tuesday 8 July 2025 14:40 (30 minutes)

Presenter: HAWARI, Ayman (NCSU/TAMU)

Session Classification: Differential Data, Modeling and Evaluation

Contribution ID: 12

Type: **not specified**

Overview of historical and new transmission measurements of nuclear graphite

Tuesday 8 July 2025 15:30 (20 minutes)

Presenter: CHAPMAN, Chris (ORNL)

Session Classification: Differential Data, Modeling and Evaluation

Contribution ID: 13

Type: **not specified**

Investigating the Impact of Fast Neutron Radiation Damage on Graphite Lattice Dynamics

Tuesday 8 July 2025 15:50 (20 minutes)

Presenter: AL-QASIR, Iyad (ORNL)

Session Classification: Differential Data, Modeling and Evaluation

Contribution ID: 14

Type: **not specified**

Discussion about modeling and evaluation approaches

Tuesday 8 July 2025 16:10 (1h 10m)

Presenter: ALL

Session Classification: Differential Data, Modeling and Evaluation

Contribution ID: 15

Type: **not specified**

Integral Benchmarks for Graphite TSL Validation

Wednesday 9 July 2025 09:00 (30 minutes)

Presenter: PERCHER, Catherine (LLNL)

Session Classification: Validation

Contribution ID: **16**

Type: **not specified**

Deimos and Graphite TSLs

Wednesday 9 July 2025 09:30 (20 minutes)

Presenter: THOMPSON, Nick (LANL)

Session Classification: Validation

Contribution ID: 17

Type: **not specified**

Modernization of Historical Graphite Measurements and Techniques

Wednesday 9 July 2025 09:50 (20 minutes)

Presenter: WANG, Benjamin (RPI)

Session Classification: Validation

Contribution ID: **18**

Type: **not specified**

ORNL testing of multiple graphite benchmarks

Wednesday 9 July 2025 10:10 (20 minutes)

Presenter: GREENE, Travis (ORNL)

Session Classification: Validation

Contribution ID: 19

Type: **not specified**

Benchmark and Validation of Thermal Neutron Scattering in Nuclear Graphite

Wednesday 9 July 2025 10:50 (30 minutes)

Presenter: HAWARI, Ayman (NCSU/TAMU)

Session Classification: Validation

Contribution ID: 20

Type: **not specified**

Discussion about Validation

Wednesday 9 July 2025 11:20 (50 minutes)

Presenter: ALL

Session Classification: Validation

Contribution ID: 21

Type: **not specified**

Discussion about validated graphite library requirements to fulfill user needs

Wednesday 9 July 2025 13:30 (1 hour)

Presenter: ALL

Session Classification: Discussions

Contribution ID: 22

Type: **not specified**

Discussion about path forward

Wednesday 9 July 2025 14:30 (1 hour)

Presenter: ALL

Session Classification: Discussions

Contribution ID: 23

Type: **not specified**

Discussion about action items

Wednesday 9 July 2025 16:00 (1h 20m)

Presenter: ALL

Session Classification: Discussions

Contribution ID: 24

Type: **not specified**

Workshop closing

Wednesday 9 July 2025 17:20 (10 minutes)

Presenters: BROWN, Dave (BNL); NOBRE, Gustavo (BNL)

Session Classification: Closing