

Scientific Programme: 14th International Workshop on Spallation Materials Technology (IWSMT-14)



Report of Contributions

Contribution ID: 0

Type: **not specified**

Opening Address

Monday, 12 November 2018 10:20 (10 minutes)

Presenters: WAKAI, Eiichi (JPARC/JAEA); MAKIMURA, Shunsuke (J-PARC/KEK)

Session Classification: Welcome & Keynote Address

Contribution ID: 1

Type: **not specified**

Welcome & Plenary Address 1: Development of J-PARC and Future Perspective

Monday, 12 November 2018 10:30 (30 minutes)

Presenter: FUTAKAWA, Masatoshi (J-PARC)

Session Classification: Welcome & Keynote Address

Contribution ID: 2

Type: **not specified**

Plenary Address 2: Post-Irradiation Examinations of SINQ Target-11

Monday, 12 November 2018 11:00 (30 minutes)

Presenter: DAI, Yong (PSI)

Session Classification: Welcome & Keynote Address

Contribution ID: 3

Type: **not specified**

Plenary Address 3: KENS Culture ~ Pioneering, Collaborating and Developing ~

Monday, 12 November 2018 11:30 (30 minutes)

Presenter: IKEDA, Susumu (KEK)

Session Classification: Welcome & Keynote Address

Contribution ID: 4

Type: **not specified**

Plenary Address 4: Resent Progress in Theoretical Aspects of Nuclear Fission

Monday, 12 November 2018 12:00 (30 minutes)

Presenter: CHIBA, Satoshi (Institute Technology of Tokyo)

Session Classification: Welcome & Keynote Address

Contribution ID: 5

Type: **not specified**

Status Update of the Spallation Neutron Source

Monday, 12 November 2018 13:30 (30 minutes)

Presenter: RIEMER, Bernie (ORNL)

Session Classification: Keynote Address: Facilities

Contribution ID: 6

Type: **not specified**

Recent Status of The Splallation Neutron Source at J-PARC

Monday, 12 November 2018 14:00 (30 minutes)

Presenter: TAKADA, Hiroshi (J-PARC)

Session Classification: Keynote Address: Facilities

Contribution ID: 7

Type: **not specified**

Overview and Progress Report of ESS Materials Handbook

Monday, 12 November 2018 14:30 (30 minutes)

Presenter: LEE, Yong Joong (ESS)

Session Classification: Keynote Address: Facilities

Contribution ID: 8

Type: **not specified**

Summary of Recent RaDIATE Studies on Material Response to Particle Beam Irradiation

Monday, 12 November 2018 15:15 (30 minutes)

Presenter: HURH, Patrick G. (FNAL)

Session Classification: Keynote Address: RaDIATE and Fusion Application

Contribution ID: 9

Type: **not specified**

Current Status of Irradiation Research of Tungsten for Fusion Reactor Application in Japan

Monday, 12 November 2018 15:45 (30 minutes)

Presenter: HASEGAWA, Akira (Tohoku Univ)

Session Classification: Keynote Address: RaDIATE and Fusion Application

Contribution ID: **10**

Type: **not specified**

Computational Study of Solute Effects in Tungsten under Irradiation

Monday, 12 November 2018 16:15 (30 minutes)

Presenter: SUZUDO, Tomoaki (JAEA)

Session Classification: Keynote Address: RaDIATE and Fusion Application

Contribution ID: 11

Type: **not specified**

Tungsten Alloy Development as Advanced Target Material for High-Power Proton Accelerator

Monday, 12 November 2018 17:00 (30 minutes)

Presenter: MAKIMURA, Shunsuke (J-PARC/KEK)

Session Classification: Tungsten Materials and the Basic Research

Contribution ID: 12

Type: **not specified**

Thermal and Mechanical Properties of High-Energy Proton and Spallation Neutron Irradiated Tungsten

Monday, 12 November 2018 17:30 (30 minutes)

Presenter: HABAINY, Jemira (ESS)

Session Classification: Tungsten Materials and the Basic Research

Contribution ID: 13

Type: **not specified**

Measurements of Displacement Cross Section and Damage Recovery of Tungsten under 389-MeV Proton Irradiation at Cryogenic Temperature

Monday, 12 November 2018 18:00 (30 minutes)

Presenter: IWAMOTO, Yosuke (JAEA)

Session Classification: Tungsten Materials and the Basic Research

Contribution ID: 14

Type: **not specified**

Experimentally Obtained Change in Positron Annihilation Lifetime of Vacancies containing Hydrogen Atoms in Tungsten

Tuesday, 13 November 2018 09:30 (30 minutes)

Presenter: SATO, Koichi (Kagoshima Univ)

Session Classification: Keynote Address: Facilities

Contribution ID: 15

Type: **not specified**

Present Status of CSNS Project

Presenter: JIA, Xuejun (CAS)

Contribution ID: **16**

Type: **not specified**

Recent Progress in the Belgian MYRRHA ADS Programme

Presenter: AERTS, Alexander (SCK-CEN)

Contribution ID: 17

Type: **not specified**

Irradiation Effects of ADS Target Window Materials on Corrosion in Liquid Metal

Tuesday, 13 November 2018 10:50 (30 minutes)

Presenter: OKUBO, Nariaki (JAEA)

Session Classification: Corrosion in Liquid Metals

Contribution ID: 18

Type: **not specified**

Effect of Oxygen Concentration in Static Pb and Pb-Bi Eutectic on Corrosion of Aluminum-Alloyed Austenitic Steels at 550 and 700°C

Tuesday, 13 November 2018 11:20 (30 minutes)

Presenter: TSISAR, Valentyn (KIT)

Session Classification: Corrosion in Liquid Metals

Contribution ID: **19**

Type: **not specified**

Long-term Corrosion Behaviors of CLAM Steel in Flowing LBE at 500°C

Presenter: JIANG, Zhizhong (CAS)

Contribution ID: 20

Type: **not specified**

Measurement of Displacement Cross Section of Structural Materials Utilized in the Proton Accelerator Facilities with the Kinematic Energy above 400 MeV

Presenter: MEIGO, Shin-ichiro (J-PARC/JAEA)

Contribution ID: **21**

Type: **not specified**

SNS 2 MW Target Design

Tuesday, 13 November 2018 13:00 (30 minutes)

Presenter: JOHNS, Kevin (ORNL)

Session Classification: Facility Development and The Related Research

Contribution ID: 22

Type: **not specified**

Recent Status of Linear IFMIF Prototype Accelerator (LIPAc) and The Plan of A-FNS

Tuesday, 13 November 2018 13:30 (30 minutes)

Presenter: KASUGAI, Atsushi (QST)

Session Classification: Facility Development and The Related Research

Contribution ID: 23

Type: **not specified**

Uranium Beam Interaction with Materials in Charge Stripper and Target

Tuesday, 13 November 2018 14:00 (30 minutes)

Presenter: OKUNO, Hiroki (RIKEN)

Session Classification: Facility Development and The Related Research

Contribution ID: 24

Type: **not specified**

Measurement of Displacement Cross Section of Structural Materials Utilized in the Proton Accelerator Facilities with the Kinematic Energy above 400 MeV

Tuesday, 13 November 2018 14:45 (30 minutes)

Presenter: MEIGO, Shin-ichiro (J-PARC/JAEA)

Session Classification: Basic Damage Study

Contribution ID: 25

Type: **not specified**

Calculations of Muon Yields from A Production Target Made of Silicon Carbide

Tuesday, 13 November 2018 15:15 (30 minutes)

Presenter: MATOBA, Shiro (J-PARC/KEK)

Session Classification: Basic Damage Study

Contribution ID: 26

Type: **not specified**

Study of Radiation Incuced Degradation of Greases for Applications in Target and Accelerator Enviornments

Tuesday, 13 November 2018 15:45 (30 minutes)

Presenter: FERRARI, Matteo (University of Brescia)

Session Classification: Basic Damage Study

Contribution ID: 27

Type: **not specified**

Distribution of Dislocation Loops in Neutron Irradiated FeCr Alloys and Steels

Tuesday, 13 November 2018 16:30 (30 minutes)

Presenter: KONSTANTINOVIC, Milan (SCK-CEN)

Session Classification: Radiation Effect and Basic Damage Analysis

Contribution ID: 28

Type: **not specified**

The Behaviors of Solute Elements and Spallation Transmutants at Various Interfaces in Ferritic/Martensitic Steel F82H after Irradiation in SINQ Target 4

Tuesday, 13 November 2018 17:00 (30 minutes)

Presenter: CUI, Lijuan (PSI)

Session Classification: Radiation Effect and Basic Damage Analysis

Contribution ID: 29

Type: **not specified**

Effects of Helium Production, Displacement Damage on Mechanical Properties and Microstructures in Austenitic Stainless Steels and Ferritic Steels

Tuesday, 13 November 2018 17:30 (30 minutes)

Presenter: WAKAI, Eiichi (J-PARC/JAEA)

Session Classification: Radiation Effect and Basic Damage Analysis

Contribution ID: **30**

Type: **not specified**

Present Status of CSNS Project

Monday, 12 November 2018 18:30 (30 minutes)

Presenter: JIA, Xuejun (CAS)

Session Classification: Tungsten Materials and the Basic Research

Contribution ID: 31

Type: **not specified**

Recent Progress in the Belgian MYRRHA ADS Programme

Tuesday, 13 November 2018 10:00 (30 minutes)

Presenter: AERTS, Alexander (SCK-CEN)

Session Classification: Keynote Address: Facilities

Contribution ID: 32

Type: **not specified**

Material Properties of Tantalum Including High Cycle Fatigue

Wednesday, 14 November 2018 09:30 (30 minutes)

Presenter: NELSON, Chris (RAL STFC UKRI)

Session Classification: Keynote Address: Facilities and Mechanical Properties

Contribution ID: 33

Type: **not specified**

Shear Punch Testing for Examining Irradiated Samples

Wednesday, 14 November 2018 10:00 (30 minutes)

Presenter: SALEH, Tarik (LANL)

Session Classification: Keynote Address: Facilities and Mechanical Properties

Contribution ID: 34

Type: **not specified**

Ab Initio Study of Helium in Tantalum: Interaction, Migration, and Clustering with Helium and Vacancies

Wednesday, 14 November 2018 10:50 (30 minutes)

Presenter: YIN, Wen (CAS)

Session Classification: Radiation Effects

Contribution ID: 35

Type: **not specified**

Effects of Irradiation Conditions on The Nucleation and Growth of Helium Bubbles - Positron Annihilation Spectroscopy Aspects

Wednesday, 14 November 2018 11:20 (30 minutes)

Presenter: KRSJAK, Vladimir (Slovak University of Technology)

Session Classification: Radiation Effects

Contribution ID: 36

Type: **not specified**

Progress of Cavitation Damge Mitigation Technologies for J-PARC Mercury Target Vessel

Wednesday, 14 November 2018 13:00 (30 minutes)

Presenter: NAOE, Takashi (J-PARC/JAEA)

Session Classification: Pressure Wave Effect in Liquid Metal

Contribution ID: 37

Type: **not specified**

SNS Mercury Target Pressure Wave Modeling and Strain Measurement

Wednesday, 14 November 2018 13:30 (30 minutes)

Presenter: RIEMER, Bernard (ORNL)

Session Classification: Pressure Wave Effect in Liquid Metal

Contribution ID: 38

Type: **not specified**

Topics on Material Performance in LBE

Thursday, 15 November 2018 09:30 (30 minutes)

Presenter: KIKUCHI, Kenji (Ibaraki Univ)

Session Classification: Keynote Address: LBE and Facilities

Contribution ID: 39

Type: **not specified**

The LBE Coolant Chemistry R&D Programme for the MYRRHA ADS: Chemistry and Control of Oxygen, Corrosion and Spallation Products

Thursday, 15 November 2018 10:00 (30 minutes)

Presenter: AERTS, Alexander (SCK-CEN)

Session Classification: Keynote Address: LBE and Facilities

Contribution ID: 40

Type: **not specified**

Proton Irradiation Program For ADS Material Development in J-PARC

Thursday, 15 November 2018 10:50 (30 minutes)

Presenter: SAITO, Shigeru (J-PARC)

Session Classification: ADS and the Related Research

Contribution ID: 41

Type: **not specified**

Stress Mimization Prpcedure for Stainless Steel Pipe Produced By Phase Transition of Solidified Lead-Bismuth Eutectic

Thursday, 15 November 2018 11:20 (30 minutes)

Presenter: ODAIRA, Naoya (Fukui Univ.)

Session Classification: ADS and the Related Research

Contribution ID: 42

Type: **not specified**

Radiation Damage Studies on Titanium Alloys as High Intensity Proton Accerelator Beam Window Materials

Thursday, 15 November 2018 13:00 (30 minutes)

Presenter: ISHIDA, Taku (J-PARC)

Session Classification: High Energy Physics Facilities and Materials

Contribution ID: 43

Type: **not specified**

Beam Dump Facility Target Prototype Beam Impact Experiment: Construction, Operation and PIE Plans

Thursday, 15 November 2018 13:30 (30 minutes)

Presenter: CALVIANI, Marco (CERN)

Session Classification: High Energy Physics Facilities and Materials

Contribution ID: 44

Type: **not specified**

Recent Developments of Hot Isostatic Pressing Diffusion Bonding Technologies to Enhance Cooling Efficiency and Reliability of Proton Beam Targets and Dumps at CERN

Thursday, 15 November 2018 14:00 (30 minutes)

Presenter: DESCARREGA, Josep (CERN)

Session Classification: High Energy Physics Facilities and Materials

Contribution ID: 45

Type: **not specified**

Performance of Refractory Metals for Beam Intercepting Devices Applications Subjected to Extreme Dynamic Stresses at CERN

Thursday, 15 November 2018 14:30 (30 minutes)

Presenter: TORREGROSA MARTIN, Claudio L. (CERN)

Session Classification: High Energy Physics Facilities and Materials

Contribution ID: 46

Type: **not specified**

Tensile properties of a proton-irradiated Inconel 718 Proton Beam Window at the Spallation Neutron Source

Thursday, 15 November 2018 15:20 (30 minutes)

Presenter: MCCLINTOCK, David (ORNL)

Session Classification: SNS and J-SNS

Contribution ID: 47

Type: **not specified**

Neutronics Study for the Proton Power Upgrade Project at SNS

Thursday, 15 November 2018 15:50 (30 minutes)

Presenter: LU, Wei (ORNL)

Session Classification: SNS and J-SNS

Contribution ID: 48

Type: **not specified**

New Design and Fabrication Technology Applied in #8 Mercury Target Vessel of J-PARC

Thursday, 15 November 2018 16:20 (30 minutes)

Presenter: WAKUI, Takashi (J-PARC/JAEA)

Session Classification: SNS and J-SNS

Contribution ID: 49

Type: **not specified**

Development of Cesium Decontamination Technique and Tungsten-coated Radiation Shielding Cloth by Siloxane Bond

Friday, 16 November 2018 09:30 (30 minutes)

Presenter: KAWAI, Masayoshi (KEK)

Session Classification: Keynote Address: Fukushima Research and the Related Research

Contribution ID: 50

Type: **not specified**

Development of Novel Neutron Shielding Concrete and Its Application to SPICA Neutron Beam Line Shields

Friday, 16 November 2018 10:00 (30 minutes)

Presenter: KAWAI, Masayoshi (KEK)

Session Classification: Keynote Address: Fukushima Research and the Related Research

Contribution ID: 51

Type: **not specified**

How Does Granular Radioactive Cs Derived from The Fukushima Daiichi Nuclear Power Plant Accident Become Soluble?

Friday, 16 November 2018 10:30 (30 minutes)

Presenter: YAMAGUCHI, Atushi (Ibaraki Univ.)

Session Classification: Keynote Address: Fukushima Research and the Related Research

Contribution ID: 52

Type: **not specified**

Summary

Friday, 16 November 2018 11:20 (30 minutes)

Session Classification: Summary Session

Contribution ID: 53

Type: **not specified**

Closing Remarks

Friday, 16 November 2018 11:50 (20 minutes)

Presenter: DAI, Yong (PSI)

Session Classification: Summary Session