

# **Beam-based Probes of Condensed Matter Physics, Chemistry and Related Fields in Canada**

## **Report of Contributions**

Contribution ID: 0

Type: **not specified**

# Welcome

*Thursday, 3 June 2021 08:00 (15 minutes)*

**Presenter:** Prof. DILLING, Jens (TRIUMF)

**Session Classification:** Novel capabilities with  $\mu$ SR

Contribution ID: 1

Type: **not specified**

# High pressure research using muons at PSI

*Thursday, 3 June 2021 08:15 (30 minutes)*

**Presenter:** Dr KHASANOV, Rustem (Paul Scherrer Institute)

**Session Classification:** Novel capabilities with  $\mu$ SR

Contribution ID: 2

Type: **not specified**

## High pressure and high transverse field applications of $\mu$ SR to quantum materials

*Thursday, 3 June 2021 08:45 (30 minutes)*

**Presenter:** Prof. SONIER, Jeff (Simon Fraser University)

**Session Classification:** Novel capabilities with  $\mu$ SR

Contribution ID: 3

Type: **not specified**

## **Reinventing muon decay channels: Impacts on $\mu$ SR research in extreme environments**

*Thursday, 3 June 2021 09:15 (30 minutes)*

**Presenter:** Dr KREITZMAN, Sydney (TRIUMF)

**Session Classification:** Novel capabilities with  $\mu$ SR

Contribution ID: 4

Type: **not specified**

## Discussion

*Thursday, 3 June 2021 09:45 (15 minutes)*

**Session Classification:** Novel capabilities with  $\mu$ SR

Contribution ID: 5

Type: **not specified**

## **Neutron scattering for quantum materials at the McMaster Nuclear Reactor and with our foreign partners**

*Thursday, 3 June 2021 10:30 (30 minutes)*

**Presenter:** Prof. GAULIN, Bruce (McMaster University)

**Session Classification:** Neutron scattering (with an accelerator-based source)

Contribution ID: 6

Type: **not specified**

## **Neutrons for today and tomorrow - Next generation accelerator based neutron sources**

*Thursday, 3 June 2021 11:00 (30 minutes)*

**Presenter:** Dr GUTBERLET, Thomas (Forschungszentrum Jülich)

**Session Classification:** Neutron scattering (with an accelerator-based source)



Contribution ID: 7

Type: **not specified**

## **A CANS for Canada: A future neutron source for Canada**

*Thursday, 3 June 2021 11:30 (30 minutes)*

**Presenter:** Dr MARQUARDT, Drew (University of Windsor)

**Session Classification:** Neutron scattering (with an accelerator-based source)

Contribution ID: 8

Type: **not specified**

## Discussion

*Thursday, 3 June 2021 12:00 (30 minutes)*

**Session Classification:** Neutron scattering (with an accelerator-based source)

Contribution ID: 9

Type: **not specified**

## $\beta$ NMR applications to biology and medicine

*Thursday, 3 June 2021 14:00 (30 minutes)*

**Presenter:** Dr STACHURA, Monika (TRIUMF)

**Session Classification:** Polarized radioactive isotopes

Contribution ID: **10**

Type: **not specified**

## **Polarized beams for nuclear structure studies**

*Thursday, 3 June 2021 13:00 (30 minutes)*

**Presenter:** Prof. RAJABALI, Mustafa (Tennessee Tech University)

**Session Classification:** Polarized radioactive isotopes

Contribution ID: **11**

Type: **not specified**

## **Polarised Radioactive Isotope Science (POLARIS) at TRIUMF**

*Thursday, 3 June 2021 13:30 (30 minutes)*

**Presenter:** Dr DUNSIGER, Sarah (TRIUMF)

**Session Classification:** Polarized radioactive isotopes

Contribution ID: 12

Type: **not specified**

## **Probing beneath the surface without a scratch – elemental analysis using muonic X-rays and gammas**

*Thursday, 3 June 2021 15:30 (30 minutes)*

**Presenter:** Dr HILLIER, Adrian (STFC Rutherford Appleton Laboratory)

**Session Classification:** Muonic X-ray analysis and  $\mu$ -SR

Contribution ID: 13

Type: **not specified**

## **Negative muon non-destructive element analysis at J-PARC MUSE**

*Thursday, 3 June 2021 16:00 (30 minutes)*

**Presenter:** Prof. MIYAKE, Yasuhiro (KEK/J-PARC)

**Session Classification:** Muonic X-ray analysis and  $\mu$ -SR

Contribution ID: 14

Type: **not specified**

## **Internal magnetic field studied with negative muon spin rotation and relaxation**

*Thursday, 3 June 2021 16:30 (30 minutes)*

**Presenter:** Dr SUGIYAMA, Jun (CROSS Neutron Science and Technology Center)

**Session Classification:** Muonic X-ray analysis and  $\mu$ -SR



Contribution ID: **15**

Type: **not specified**

## Discussion

*Thursday, 3 June 2021 17:00 (30 minutes)*

**Session Classification:** Muonic X-ray analysis and  $\mu$ -SR

Contribution ID: **16**

Type: **not specified**

## Discussion

*Thursday, 3 June 2021 14:30 (30 minutes)*

**Session Classification:** Polarized radioactive isotopes

Contribution ID: 17

Type: **not specified**

## **Positron production and positron beam experiments at NEPOMUC**

*Friday, 4 June 2021 09:00 (30 minutes)*

**Presenter:** Prof. HUGENSCHMIDT, Christoph (Technical University Munich)

**Session Classification:** Positron annihilation spectroscopy

Contribution ID: **18**

Type: **not specified**

## **Materials characterization by positron annihilation spectroscopy –A Canadian perspective**

*Friday, 4 June 2021 08:30 (30 minutes)*

**Presenter:** Prof. MASCHER, Peter (McMaster University)

**Session Classification:** Positron annihilation spectroscopy

Contribution ID: **19**

Type: **not specified**

## Discussion

*Friday, 4 June 2021 09:30 (30 minutes)*

**Session Classification:** Positron annihilation spectroscopy

Contribution ID: 20

Type: **not specified**

## **Opportunities for high-field terahertz research in quantum materials**

*Friday, 4 June 2021 10:30 (30 minutes)*

**Presenter:** Prof. DODGE, Steve (Simon Fraser University)

**Session Classification:** THz spectroscopy in Canada

Contribution ID: 21

Type: **not specified**

## **Next generation THz instrumentation for material science**

*Friday, 4 June 2021 11:00 (30 minutes)*

**Presenter:** Prof. COOKE, David (McGill University)

**Session Classification:** THz spectroscopy in Canada

Contribution ID: 22

Type: **not specified**

## **Prospects for THz/Infrared photon source powered by TRIUMF e-linac**

*Friday, 4 June 2021 11:30 (30 minutes)*

**Presenter:** Dr VICTOR, Verzilov (TRIUMF)

**Session Classification:** THz spectroscopy in Canada



Contribution ID: **23**

Type: **not specified**

## Discussion

*Friday, 4 June 2021 12:00 (30 minutes)*

**Session Classification:** THz spectroscopy in Canada

Contribution ID: 24

Type: **not specified**

# **Resonant soft x-ray reflection and diffraction studies of quantum materials**

*Friday, 4 June 2021 13:00 (30 minutes)*

**Presenter:** Prof. GREEN, Robert (University of Saskatchewan)

**Session Classification:** Synchrotron light sources

Contribution ID: 25

Type: **not specified**

## **The Canadian Light Source: current research activities and plans for the future**

*Friday, 4 June 2021 14:00 (30 minutes)*

**Presenter:** Prof. BOTTON, Gianluigi (Canadian Light Source Inc.)

**Session Classification:** Synchrotron light sources

Contribution ID: 26

Type: **not specified**

## Discussion

*Friday, 4 June 2021 14:30 (30 minutes)*

**Session Classification:** Synchrotron light sources

Contribution ID: 27

Type: **not specified**

## Muon dreams revisited

*Friday, 4 June 2021 15:30 (30 minutes)*

**Presenter:** Prof. BREWER, Jess H. (UBC & TRIUMF)

**Session Classification:**  $\mu$ SR ideas and concepts

Contribution ID: 28

Type: **not specified**

## **Reaction kinetics in supercritical water as probed with muonium**

*Friday, 4 June 2021 16:00 (30 minutes)*

**Presenter:** Prof. PERCIVAL, Paul (Simon Fraser University)

**Session Classification:**  $\mu$ SR ideas and concepts

Contribution ID: 29

Type: **not specified**

## **Development of non-destructive elemental analysis method using muons and extension of the method to isotopic analysis**

*Friday, 4 June 2021 16:30 (30 minutes)*

**Presenter:** Prof. NINOMIYA, Kazuhiko (Osaka University)

**Session Classification:**  $\mu$ SR ideas and concepts

Contribution ID: **30**

Type: **not specified**

## Discussion

*Friday, 4 June 2021 17:00 (30 minutes)*

**Session Classification:**  $\mu$ SR ideas and concepts



Contribution ID: 31

Type: **not specified**

## **Positron annihilation: probing the atomic and electronic structures of condensed matter**

*Friday, 4 June 2021 08:00 (30 minutes)*

**Presenter:** Prof. TUOMISTO, Filip (University of Helsinki)

**Session Classification:** Positron annihilation spectroscopy

Contribution ID: **32**

Type: **not specified**

## **Modern applications of X-ray microscopy**

*Friday, 4 June 2021 13:30 (30 minutes)*

**Presenter:** Dr LEONTOWICH, Adam (Canadian Light Source Inc.)

**Session Classification:** Synchrotron light sources