

# ISIS Neutron and Muon Source

Neutrons and muons to advance knowledge and improve lives

## Deuteration Facility Meeting

3<sup>rd</sup> – 4<sup>th</sup> June 2024, Cosener's House, Abingdon

Monday 3rd June	
<b>10:00</b>	<b>Registration &amp; Coffee</b>
<b>Session 1 - ISIS Deuteration Facility (Chair: Sarah Youngs)</b>	
11:15	Prof Sean Langridge <i>Welcome &amp; Introduction</i>
11:35	Dr June McCorquodale <i>ISIS Deuteration Facility 2024 Update</i>
11:55	Dr James Tellam <i>ISIS Deuteration Facility Access and Recent Developments</i>
<b>12:15</b>	<b>Lunch</b>
<b>Session 2 - Disordered Materials (Chair: James Tellam)</b>	
13:30	Prof Małgorzata Swadźba-Kwaśny TBC
14:00	Dr Tom Headen <i>Understanding liquid and amorphous structures for electrical energy storage</i>
14:20	Dr Harrison Laurent <i>Empirical Potential Structure Refinement: Exploiting Isotopic Variation for Atomic Resolution</i>
14:30	Dr Andrew Seel <i>Amines, Deuteration, and Spectroscopy: From Contrast Measurements to Incoherent Deuterium</i>
<b>15:00</b>	<b>Break</b>
<b>Session 3 - Polymers / Surfactants (Chair: Yao Chen)</b>	
15:30	Dr Natasha Shirshova <i>Importance of deuterated ionic liquid for structural electrolytes</i>
16:00	Ms Karyn Wilde <i>ANSTO's National Deuteration Facility: isotopic labelling strategies enabling biomolecular investigations using neutrons and more</i>
16:20	Dr Alison Paul TBC
16:40	Dr Kuno Schwärzer <i>JCNS Deuteration Lab</i>
<b>17:00</b>	<b>Free Time</b>
<b>18:00</b>	<b>Poster Session</b>
<b>19:30</b>	<b>Dinner</b>

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Tuesday 4th June	
Session 4 - Pharmaceutical & Bio (Chair: Kun Ma)	
09:00	Prof Katharina Edkins <i>Deuteration in Pharmaceutical Materials</i>
09:30	Dr Xuzhi Hu <i>Understanding the irritancy potential of nonionic surfactants by neutron scattering and reflection</i>
09:50	Dr Mona Sarter <i>Protein ligand interactions analysis using QENS – How to take the D2O based buffer into account during data analysis</i>
10:10	Dr Zoë Fisher <i>DEMAX: The Deuteration and Macromolecular Crystallization Support labs for the European Spallation Source</i>
<b>10:30</b>	<b>Break</b>
Session 5 - Discussion (Chair: Marek Jura)	
11:00	Discussion
12:00	Wrap Up
<b>12:15</b>	<b>Lunch</b>
<b>13:30</b>	<b>Transport to ISIS</b>
<b>14:15</b>	<b>Tour of ISIS &amp; Deuteration Facility</b>