

**32nd Annual Northern Universities Meeting On Chemical Physics
(ANUMOCP XXXII)**

Department of Chemistry, Durham University

11th July 2024

10:00 Arrival and registration

Session 1, Chair: Michi Burrow, Durham University

10.30: Connor Clarke, Durham University: The dipole-bound state as a precursor to the hydrated electron

10.50: Edward Cummings, York University: Annulene Aromaticity: Vertical vs Adiabatic excitations and de-excitations.

11.10: Coffee break (20 min)

Session 2, Chair: Daniel Bou Debes, Open University

11.30: Ambar Shaikh, York University: Developing UV diode photodissociation with mass spectrometry as a new method for measuring photolysis breakdown.

11.50: Eleanor Ashworth, University of East Anglia: Instrumentation for photoinduced action spectroscopy of anions in the gas phase.

12.10: Faith Pritchard, Durham University: The battle between anion and hydrated electron formation.

12.30: Lunch and poster session

Session 3, Chair: Jemma Gibbard, Durham University

1.50: ANUMOCP AGM

2.00: Jan Verlet, Durham University: How to write a paper workshop

2.30: Ask your questions about research, science and careers to our panel: Cate Anstoter (University of Edinburgh), Kelechi Uleanya (University of York) and Eckart Wrede (Durham University).

3.10: Coffee break (20 mins)

Session 4, Chair: Connor Clarke, Durham University

3.30: David Matalon, Open University: Experimental and theoretical momentum distributions of the valence electronic structure of benzonitrile.

3.50: Kelechi Uleanya, York University: Observing spin flips in metalloporphyrin's using N-aromatic complexation.

4.10: Closing remarks

4.15: departure

Poster presentations:

1. Ruth Winkless, York University: Laboratory photolysis of atmospheric carbonyls
2. Francis Daly, Edinburgh University: Electronic spectroscopy of the benzonitrile cation for astrochemical consideration
3. Sabina Gurung, York University: A high-throughput 2D-IR spectrometer for biomolecular analysis
4. Matthew Simmons, York University: Towards high throughput 2DIR: Integrating 2D IR spectroscopy and microfluidics
5. Ali Mutlaq Alharbi, Sheffield University: Near-IR photoacoustic trace detection of H₂S, CO₂ and CH₄
6. Amy Farmer, York University: High throughput protein analysis using ultrafast 2D-IR
7. Oliver Smith, York University: Unravelling DNA hairpins: an insight into loop dynamics with 2D IR spectroscopy
8. Caleb Jordan, Bristol University: Investigating chromophore-environment coupling by two-dimensional electronic spectroscopy
9. Kelly Brown, York University: Beyond the norm: the potential for translation of 2D-IR for clinical applications in the advancement of early-stage cancer detection