

Part II Project Talks 2018

Thursday 3 May and Friday 4 May 2018 (Week 2, Trinity Term)
Hume-Rothery Lecture Theatre

Time	Student	College	Supervisor	Title of Talk
Thurs 3rd May				
9.45	Coffee and pastries HR Meeting Room (Judges only)			
10.15	Introduction: Prof. Keyna O'Reilly			
10.30	1. Ellie Howland	CCC	HEA	Pattening acrylate thin films
10.45	2. Christie Wang	STC	HEA	Self assembly of peptides on surfaces
11.00	3. Imogen Brown	MAN	JaMS	Nanodiamond single photon sources
11.15	4. Angus Braithwaite	MAN	RIT	Reducing the onset temperature for flash sintering of Zirconia
11.30	5. Bertie Mills	SEH	RIT	"Cold sintering" of ceramics
11.45	6. Elaine Fan	SEH	RIT	Cyclic fatigue of Y-TZP ceramics
12.00	Lunch (JUDGES ONLY: St Edmund Hall)			
14.00	7. Dominic Herriott	STA	SCS/JRY	Electronic structure of Rbx Fe _{2-y} Se ₂ Superconductor
14.15	8. Shona McNab	CCC	CRMG/SCS	Powder Processed Persistent Mode Joints for NbTi Superconducting Wire
14.30	9. Danielle van Gilst	STA	CRMG/SCS	Persistent Current Joints Between High Temperature Superconducting BSCCO Wire
14.45	10. Kaiyi Chen	STC	PGB	New Disordered Cathode Materials for Li-ion Batteries
15.00	11. Tian Bi	MAN	PGB	Synthesis of sodium intercalation material in a conducting polymer matrix
15.15	12. Arthur Hussey	CCC	DEJA/Zayachuk/TJ M	The Characterisation of Sic/Sic composites for nuclear reactors
15.30	Tea/Coffee (Hume-Rothery Foyer)			
15.45	13. Tom Fabes	TRI	TJM/Liu	Micro-mechanical Study of the Interfacial Toughness in GaN-on-Diamond Semiconductor Devices
16.00	14. Georgina Mordue	TRI	TJM	Toughness of advanced graphites for Generation IV nuclear fission
16.15	15. Zoe Zhang	STA	TJM	Crack propagation analysis of carbon-fibre/epoxy composites based on X-ray tomography
16.30	16. Gustaf Behmer	CCC	Tarleton/TJM	Discrete dislocation modelling of uranium
16.45	17. Rebecca Wang	TRI	Prof Tasan (MIT) /AJW/DEJA	Pop-in Behaviour of Superelastic Ti-Ni Nanoprecipitates
17.00	18. Jason Lee	QNS	AJW/Tarleton	Dislocation modelling of micro seesaw experiments

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Friday 4th May				
09.00 Coffee & pastries HR meeting room (Judges only)				
09.30	19 Louis Brannan	STA	PRW/Bonilla	Thin oxides for silicon based solar cells
09.45	20 Angela Du	STC	PRW	Ionic field effect surface passivation for silicon solar cells
10.00	21 Hantao Li	TRI	PRW	The Effect of Hydrogen on the Contact Resistance of Silicon Solar Cells
10.15	22 Megan Jones	TRI	MPM/Haley	Enabling the 3D Imaging of Hydrogen in Zirconium Alloys via Advanced Atom Probe
10.30	23 Sam Southern	SEH	MPM/Auger	The effect of thermal ageing on the atomic-scale microstructure and properties of 17-4PH steel
10.45 Coffee (Hume-Rothery Foyer)				
11.00	24 Ben Evans	SEH	PSG	Manufacture of coatings and claddings for nuclear power applications
11.15	25 George Fulton	SEH	PSG	Additive manufacture of heterogeneous composites for microwave communication applications
11.30	26 Daniel Radigan	STA	GADB/Mol	Inducing quantum interference effects in graphene nanostructures
11.45	27 Anthony Zhang	QNS	MP	The first generation of Mg/Na hybrid battery
12.00	28 Nils Behling	QNS	KAQO'R	DC Simulator - does it work for intermetallic phases?
12.30	Judging (Hume-Rothery Meeting Room)			
13.00	Lunch (Hume-Rothery Meeting Room Judges only)			