

HENRY ROYCE



MATERIALS FOR ENERGY-EFFICIENT ICT

CAMIES internal funding call

Facilities access support for the use of Henry Royce Institute equipment at the University of Cambridge

The EPSRC Centre of Advanced Materials for Integrated Energy Systems (CAM-IES) will provide funding to support access to shared equipment facilities by its member institutions. **Up to £20 k of funding is available in total per year**, hence awards are expected to be in the range of £1 k to £4 k.

CAM-IES invites investigators from the **four member institutions** (University of Cambridge, Queen Mary University of London, UCL, Newcastle University) to submit proposals for award of this flexible funding, to provide access to the newly-installed Henry Royce Institute facilities at the University of Cambridge.

The Cambridge Royce facilities focus on the theme of *Materials* for *Energy-Efficient ICT*, and comprise equipment suites dedicated to the study of advanced energy materials and related ICT technologies.

Proposals may be submitted at any time during the year **until 30 April 2019**, and proposals will be reviewed every two months.

Applicants may submit a proposal of no more than one page to Lata Sahonta <u>sls55@cam.ac.uk</u>. Please include details of:

- Project structure e.g. aims, objectives, deliverables
- Facilities access required, including estimated cost
- How the project demonstrates synergy between energy materials topics
- · Impact of the project on current energy technologies
- Discussion with Royce technical staff about experimental design and risk assessments is required prior to submission.
- Applications must be signed by a Royce academic lead and/or an appropriate member of Royce technical staff.

EPSRC grant "Centre for Advanced Materials for Integrated Energy Systems (CAM-IES)" EP/P007767/1



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Facilities Access Proposal Guidelines

- Academic investigators may be from any CAM-IES member institution (University of Cambridge, Queen Mary University of London, UCL, Newcastle University)
- Equipment access costs and small consumables directly related to the project may be requested. Reasonable travel and subsistence costs (for applicants not based at Cambridge University) can also be requested.
- Applicants need not have had prior collaboration with CAM-IES
- Projects must be within the scope of the CAM-IES Work Package topics (or a related topic within the field of energy technologies)
- Postdocs and students may use the equipment. If a postdoc is the lead applicant, they must apply with an academic co-investigator.
- Applications for ongoing facilities access will be considered, although new projects and collaborations are encouraged
- Projects that demonstrate cross-fertilisation between two or more CAM-IES Work Package topics are strongly encouraged
- Applications will be reviewed by a panel of CAM-IES co-investigators
- Approved costs may be claimed back on presentation of receipts. Equipment charges will be paid directly to research facilities by CAM-IES.
- After completion of experiments, applicants are asked to provide a short paragraph of how the equipment was used, or a link to any relevant (open access)publications
- All instrument usage that is funded by CAM-IES must be acknowledged in publications using the grant codes below

EPSRC grant "Centre for Advanced Materials for Integrated Energy Systems (CAM-IES)" EP/P007767/1

Cambridge Royce facilities grant EP/P024947/1







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CAM-IES Work Package Summaries (please click on links to view summaries)

Work Package 1: Solid-solid inorganic interfaces (Lead: Professor Judith Driscoll)

Work Package 2: Gas-solid interfaces (Lead: Professor Ian Metcalfe)

Work Package 3: Liquid-solid interfaces (Lead: Professor Clare Grey)

Work Package 4: Organic-inorganic interfaces (Lead: Dr Hugo Bronstein)

Work Package 5: Organic heterointerfaces (Lead: Professor Henning Sirringhaus)

Work Package 6: From new materials to integrated energy systems (Lead: Professor Sir Richard Friend)



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Cambridge Royce facilities and charges (April 2018 to February 2019)

Royce Equipment and Related Suites	Academic Lead contact	Technical Lead Contact	Availability for booking	Approx. hourly charge (£)
UHV sputter system	Mark Blamire mb52@cam.ac.uk	Nadia Stelmashenko nas19@cam.ac.uk	1 May 2018	25
Dual-beam FIB	Jason Robinson jjr33@cam.ac.uk,	John Walmsley jcw80@cam.ac.uk	Available	40
MBE chamber	David Ritchie dar11@cam.ac.uk	James Aldous ja599@cam.ac.uk	1 Aug 2018	63
Thermal/e-beam evaporator	David Ritchie dar11@cam.ac.uk	James Aldous ja599@cam.ac.uk	1 Aug 2018	39
Wafer scale AFM	Rachel Oliver rao28@cam.ac.uk	Fabien Massabuau fm350@cam.ac.uk	Available	9
Ambient processing cluster tool suite	Henning Sirringhaus hs220@cam.ac.uk	Adam Brown adb60@cam.ac.uk	1 June 2018	6
Environmental XPS/UPS	Stephan Hofmann sh315@cam.ac.uk	Adam Brown adb60@cam.ac.uk	1 Aug 2018	40
E-beam lithography	Andrea Ferrari acf26@cam.ac.uk	Jon Griffiths jpg35@cam.ac.uk	1 May 2018	200
UV lithography suite	Michael de Volder mfld2@cam.ac.uk	Nicolo Chiodarelli nc474@cam.ac.uk	Available	20
In situ TEM suite	Caterina Ducati cd251@cam.ac.uk	Giorgio Divitini gd322@cam.ac.uk	Available	14
3D X-ray CT	Graham McShane gjm31@cam.ac.uk	Tony Dennis ad466@cam.ac.uk	Available	30
Electrochemical Quartz Crystal Microbalance	Clare Grey cpg27@cam.ac.uk	Adam Brown adb60@cam.ac.uk	Available	5
Thermoelectric analyser	Henning Sirringhaus hs220@cam.ac.uk	Ekaterina Selezneva es755@cam.ac.uk	Available	3
HV/HF Test Equipment	Florin Udrea fu10000@cam.ac.uk	Nishad Udugampola nku20@cam.ac.uk	Available	65
MPMS, PPMS suite	Jason Robinson jjr33@cam.ac.uk	Cheng Liu cl291@cam.ac.uk	Available	20
Magnetic and thermal imaging System	Mete Atature ma424@cam.ac.uk	Helena Knowles hsk35@cam.ac.uk	Available	35
Wide bore magnet	John Durrell jhd25@cam.ac.uk	Tony Dennis ad466@cam.ac.uk	Available	15