



**Battery
Manufacturing
Facility**

ROYCE

The Royce Battery Manufacturing Facility at the University of Cambridge provides equipment for academic and commercial researchers to develop and process novel battery materials. This comprehensive facility accommodates a variety of materials and overcomes difficult processing operations, bridging the gap between materials innovation and industrial collaboration. The facility enables researchers to investigate factors such as scalability and safe processing methods.

Separation

The Beckman Avanti JXN26 has a maximum capacity of 6 litres and 26 thousand RPM, 82 thousand g, it can be used for liquid-solid separation and sample processing at temperature control.



Battery Development Facility



Manufacturing

- An Mbraun Labmaster Pro glove box helps users to handle air sensitive samples under inert atmosphere.
- The flexible Milestone flexiWAVE Microwave System allows users to synthesise and digest difficult reaction chemistries. This can be used for the digestion of electrodes, functionalisation, coating and dehydration.
- An IKA EasySyn Advanced Reactor System is typically used for organic or aqueous synthesis, mixing, co-precipitation and filtration.



Drying

- The BUCHI Lyovapor L-200 freeze dryer allows users to dry samples through lyophilisation before slurry or electrode fabrication and allows for the self-assembly of composites.
- The Thermo Fisher Vacuum Oven dries samples at temperature and under inert gas. This is useful for drying coated or slurry formulations but can be used for curing, vacuum embedding, and plating.
- The Labtech Rotary Evaporator assists with drying of more solvent heavy samples, leading to the removal of selective solvents from your samples by evaporation for purification.

Mixing

The planetary Thinky Mixer ARV-501 can mix, disperse and degas materials, in a sealed or lidless container for slurry formulations and homogeneous mixing.

The IKA T50 digital dispersion overhead stirrer can mix up to 30 litres of mixture at up to 10,000 RPM in speed.





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