

Preparation of advanced coatings on cathode materials using Thinky mixers

A shout out to Ed Harrison, a student at University of Birmingham. In the summer of 2022, the [Faraday Undergraduate Summer Experience \(FUSE\)](#) internship programme provided internships for undergraduate students to undertake paid eight-week placements with battery researchers from partner universities, and Ed was a part of this programme.

His poster on ***Making and Testing Cathode Materials – Preparation and characterization of advanced coatings on cathode materials*** [can be read here](#), and includes this:

“The primary step to making a cathode coating is to mix all the required components. First the active material (NMC/LFP) and carbon black are mixed using a [Thinky Mixer](#) at 1300 RMP, to make them as homogenous as possible before any solutions are added. Then binder is added, for which I used 8% PVDF in NMP. The last step of the mixing process involves adding the solvent, for example, NMP. This is to decrease the solid content of the slurry, ensuring all powders are dissolved, and to reach a suitable viscosity to be used when coating.”

If you want to know more about how Thinky mixing and degassing machines use a non-contact “planetary” technique to homogeneously mix all manner of liquids, pastes, powders and fillers – in any combination – [watch our 90 second video](#).

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