



Efficiency & Environment, Technology

Not such a waste! Orange peel could help recycle batteries say boffins

The research of scientists from Nanyang Technological University Singapore aims to address food and e-waste challenges



Dimitris Mavrokefalidis

[More Articles](#)

Tuesday 22 September 2020



Image: NTU Singapore

Could peel waste from oranges temper the demand for **lithium-ion batteries** used for the electrification of transport and hold the key to reducing food and **electronic waste**?

Scientists from Nanyang Technological University Singapore (NTU Singapore), have discovered a novel way to use fruit peel waste to extract valuable metals from used lithium-ion batteries and create recycled batteries with charging capacity 'comparable' to those found in the market.

Professor Madhavi Srinivasan, Co-Director of the NTU Singapore – CEA Alliance for Research in Circular Economy and Assistant Professor of the NTU School of Materials Science and Engineering and School of Biological Sciences Dalton Tay, spoke to FNZ about their research that used orange peel waste to extract and reuse spent batteries.

They argue the key lies in a substance found in orange peel, which is converted into sugars under heating conditions and enhances the recovery of metals from battery waste.

Watch the [full interview on our sister platform Future Net Zero](#)

If you enjoyed this story you can sign up to our weekly email for [Energy Live News](#) – and if you're interested in hearing more about the journey to net zero by 2050, you can also sign up to the [future Net Zero newsletter](#).

electrification

electronic waste

food waste

lithium

lithium-ion battery