

Electronic Supporting Information

Environment friendly acids for leaching transition metals from spent-NMC532 cathode and sustainable conversion to potential anodes

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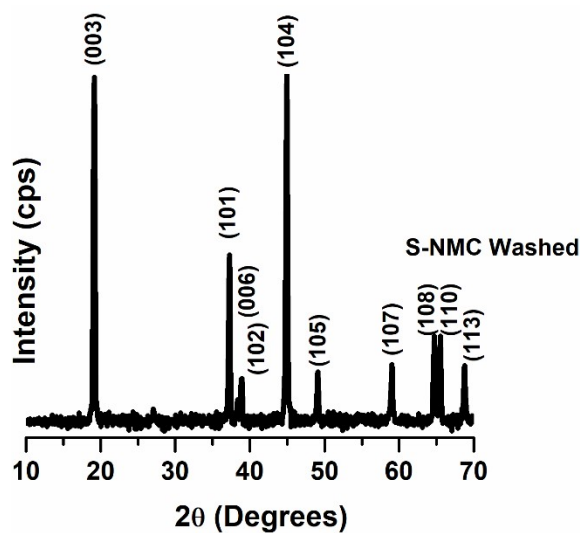


Figure S1. XRD representation of S-NMC532

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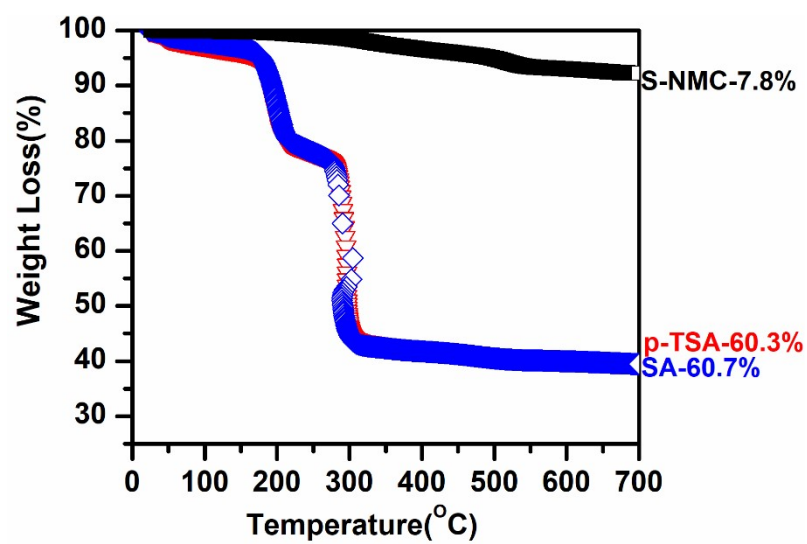


Figure S2. TG analysis of S-NMC, mixed metal oxalates synthesized using different leachants like p-TSA and SA.

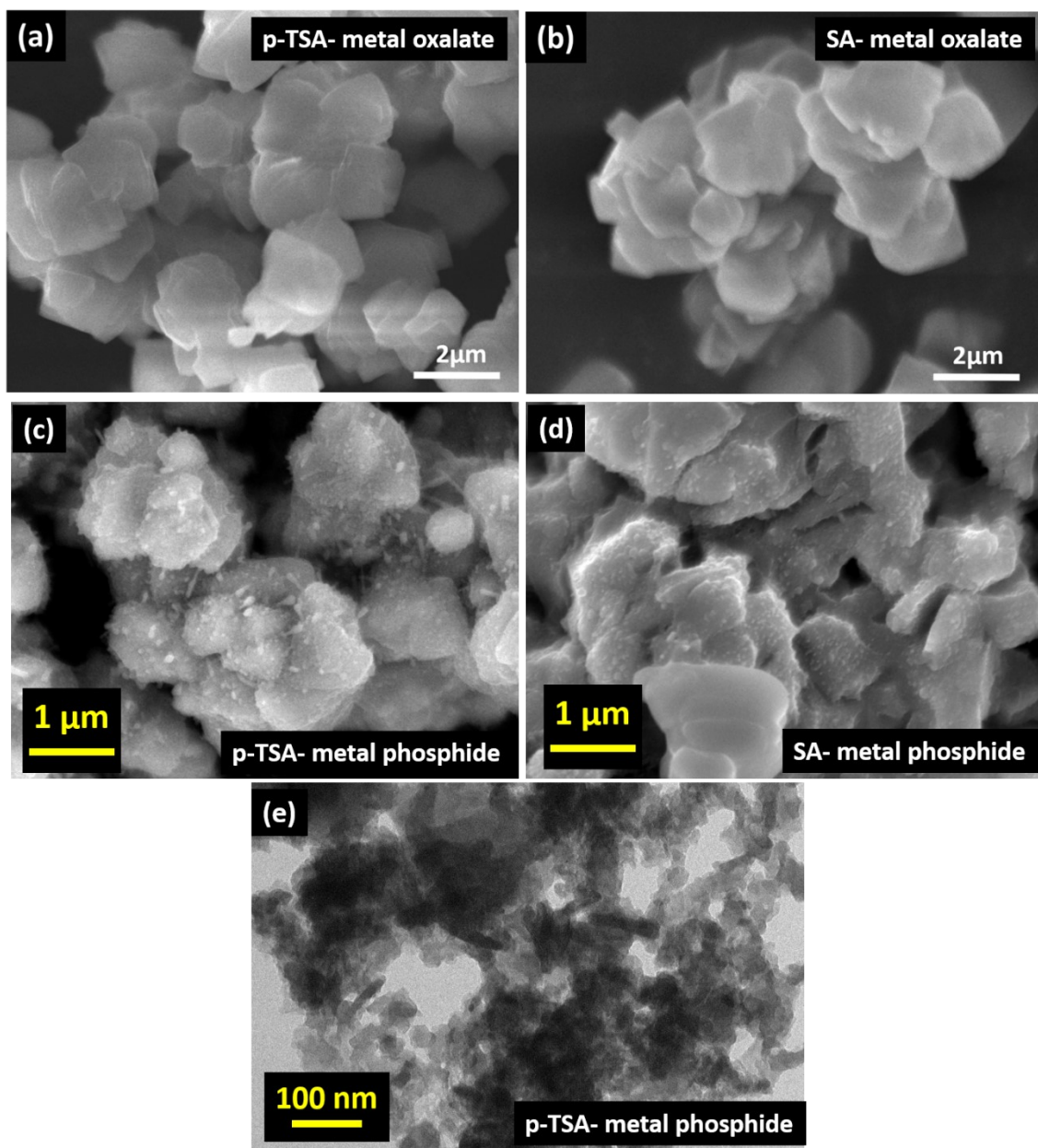


Figure S3. (a) p-TSA derived metal oxalate, (b) SA derived metal oxalate, (c) p-TSA derived metal phosphide, (d) SA derived metal phosphide and (e) p-TSA derived metal phosphide.

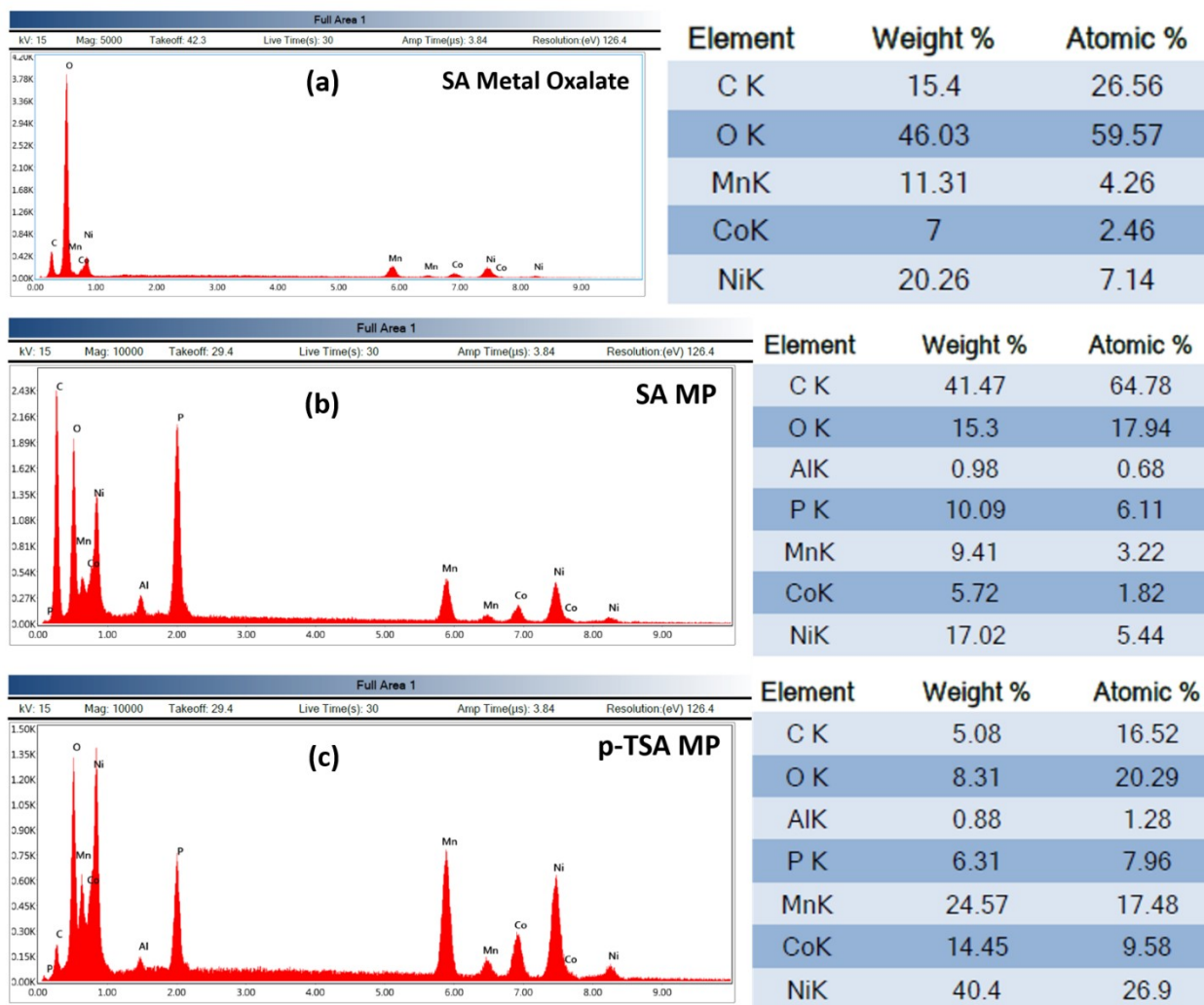


Figure S4. Energy Dispersive X-ray analysis and table of composition of (a) SA derived metal oxalate (b) SA derived metal phosphide and (c) p-TSA derived metal phosphide.

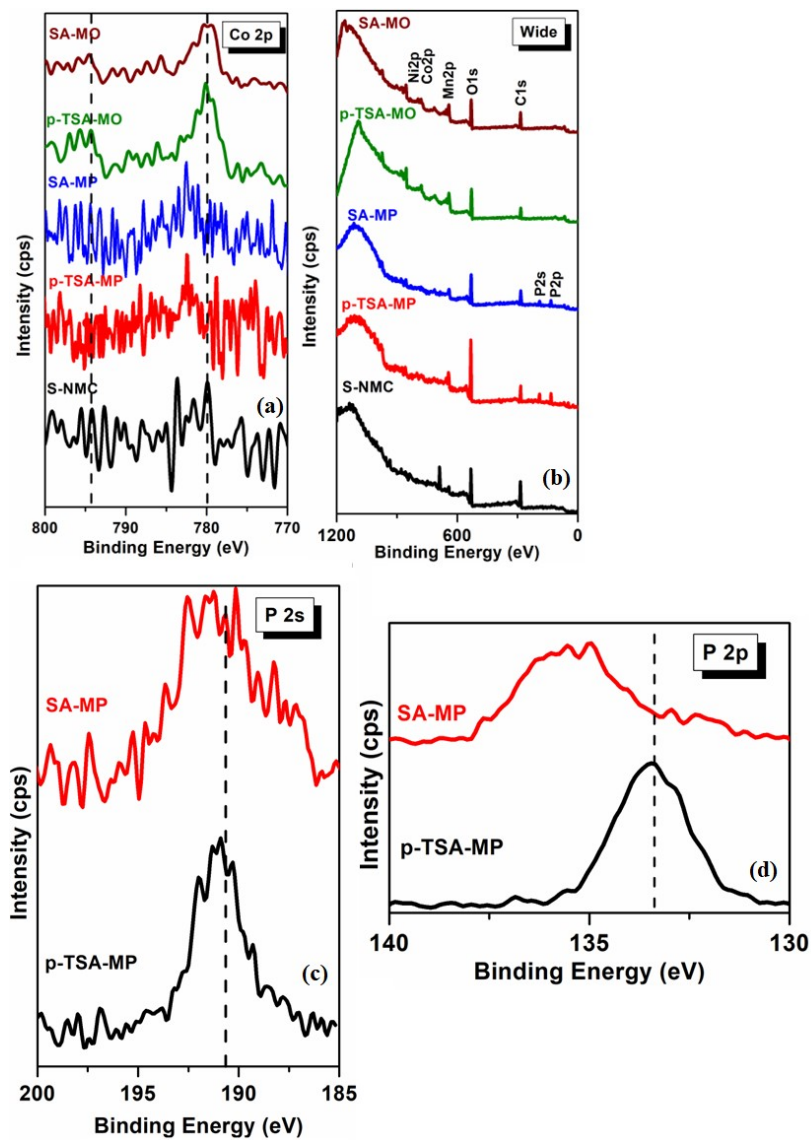


Figure S5. XPS representation of S-NMC, mixed metal phosphides and oxides synthesized using different leachants like p-TSA and SA.