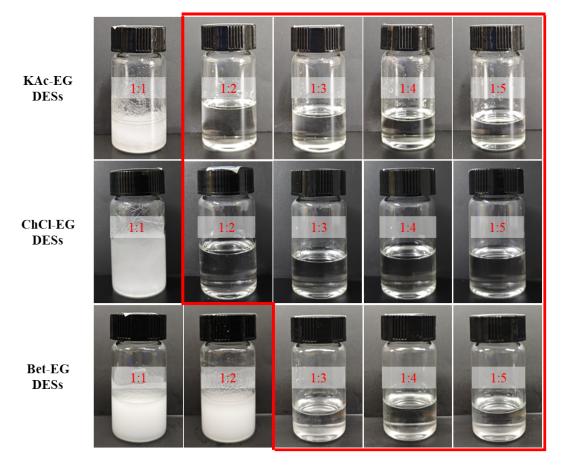
## Characterization of thermal mass transfer in the separation process of electrode materials from spent lithium-ion batteries using deep eutectic solvents

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**Figure. S1** DESs were prepared using different HBAs or molar ratios. For Bet as the HBA, stable DESs could not be formed when the molar ratio of HBA to HBD was≤2. Similarly, for ChCl and KAc, no DESs could be synthesized at a 1:1 molar ratio of HBA to HBD.

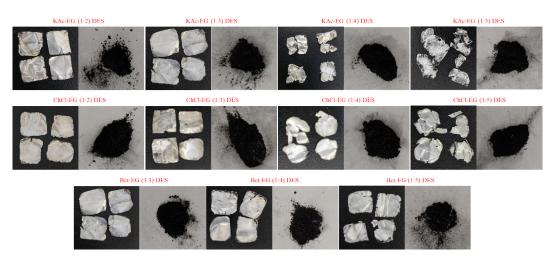


Figure. S2 Peeled cathode active materials and aluminum foils in DESs with different HBAs and molar ratios. It can be observed that as the molar ratio of EG increases, the integrity of the peeled foils is compromised, and fine aluminum foil particles are mixed into the cathode active materials, thereby reducing their purity.



Bet-EG (1:3) DESs

KAc-EG (1:3) DESs

Figure. S3 DESs before and after reaction in separation experiments