

Figure S1. Schematic diagram of the preparation and the beneficiation studies on PCBs.

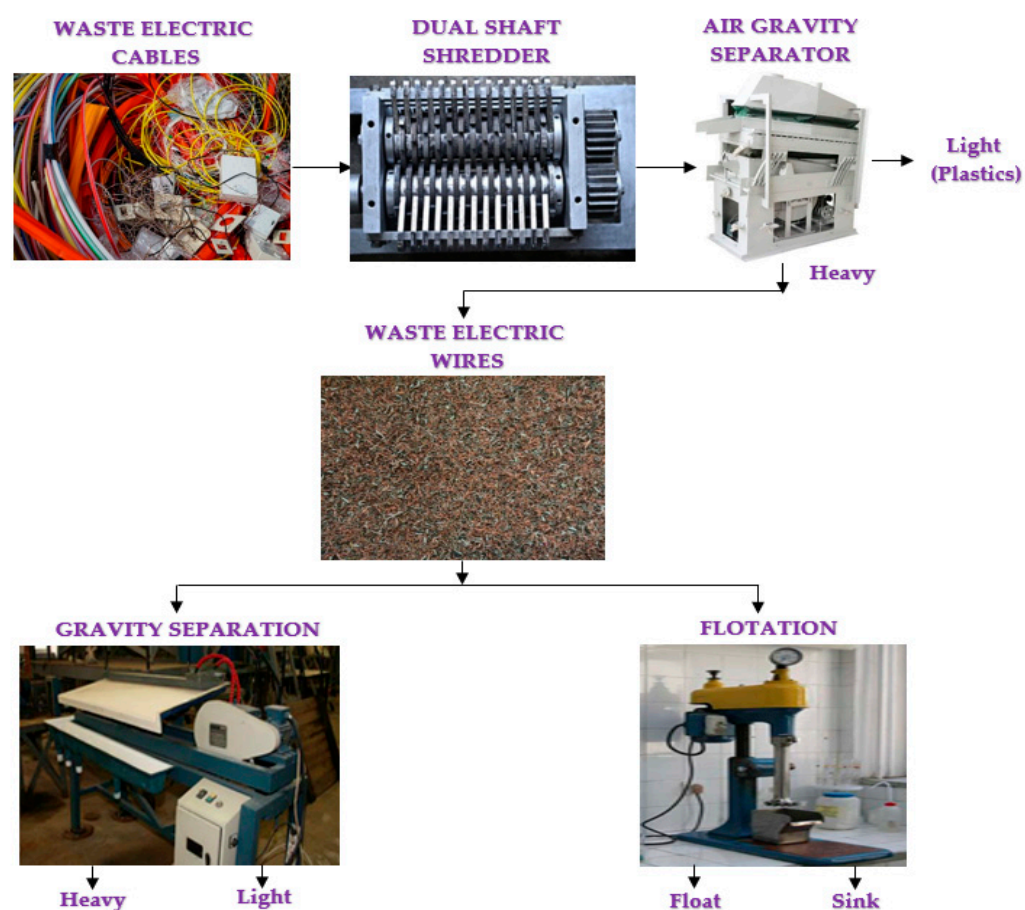


Figure S2. Schematic diagram of preparation and beneficiation studies on WEWs.

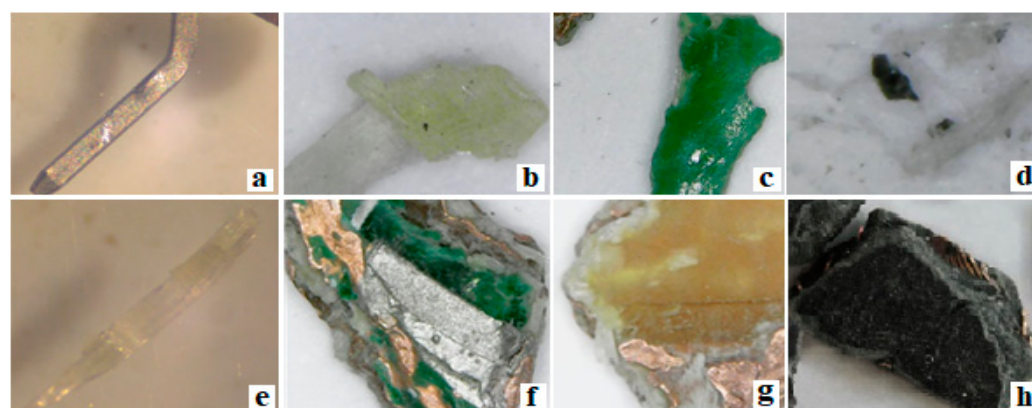


Figure S3. Optical micrographs of comminuted PCB particles after hammer crusher: (a) free metals, (b) free plastics, (c) free board pieces, (d) free ceramics, (e) free fibers, (f) locked board pieces, (g) locked plastics, (h) locked ceramics.

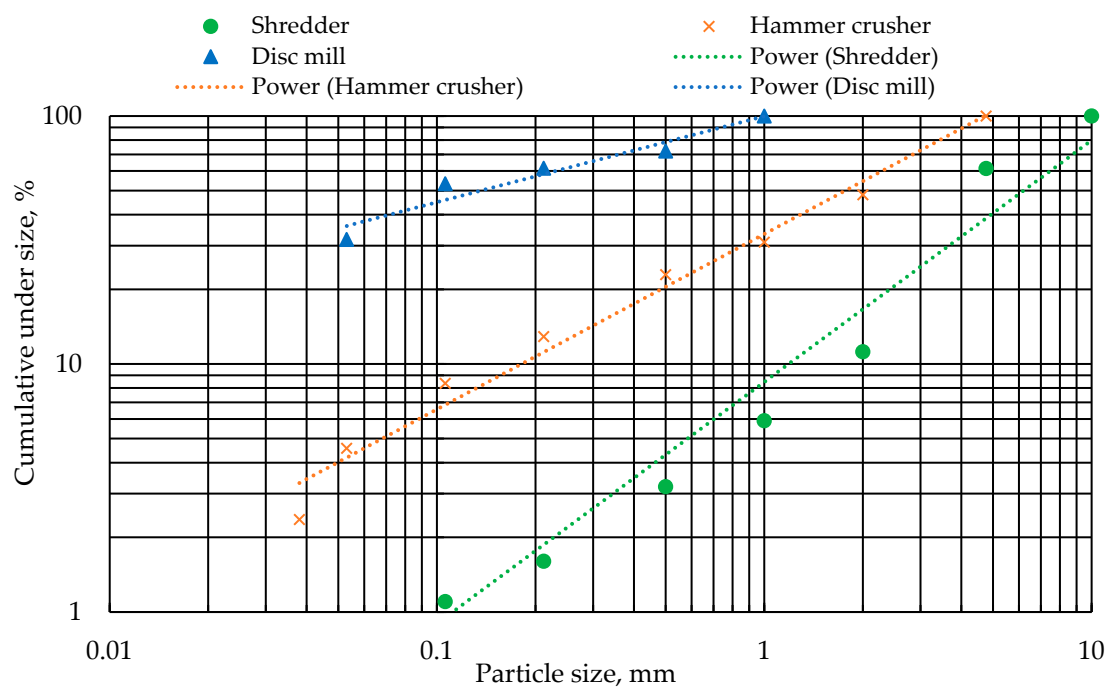


Figure S4. PSD curves of the comminuted products of PCBs.

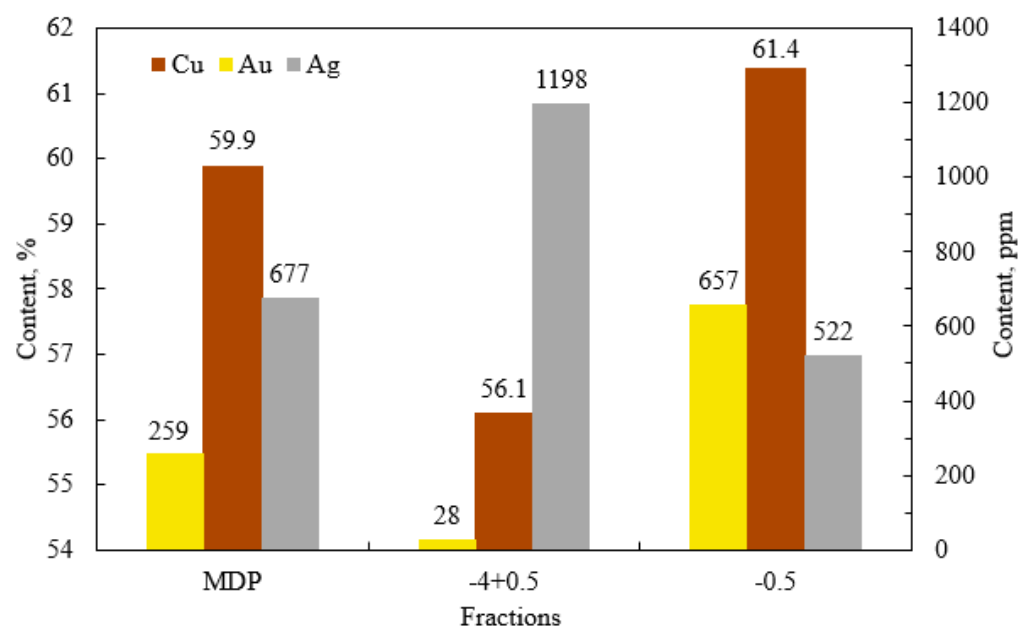


Figure S5. The contents of heavy fractions in shaking table separation at different fractions.

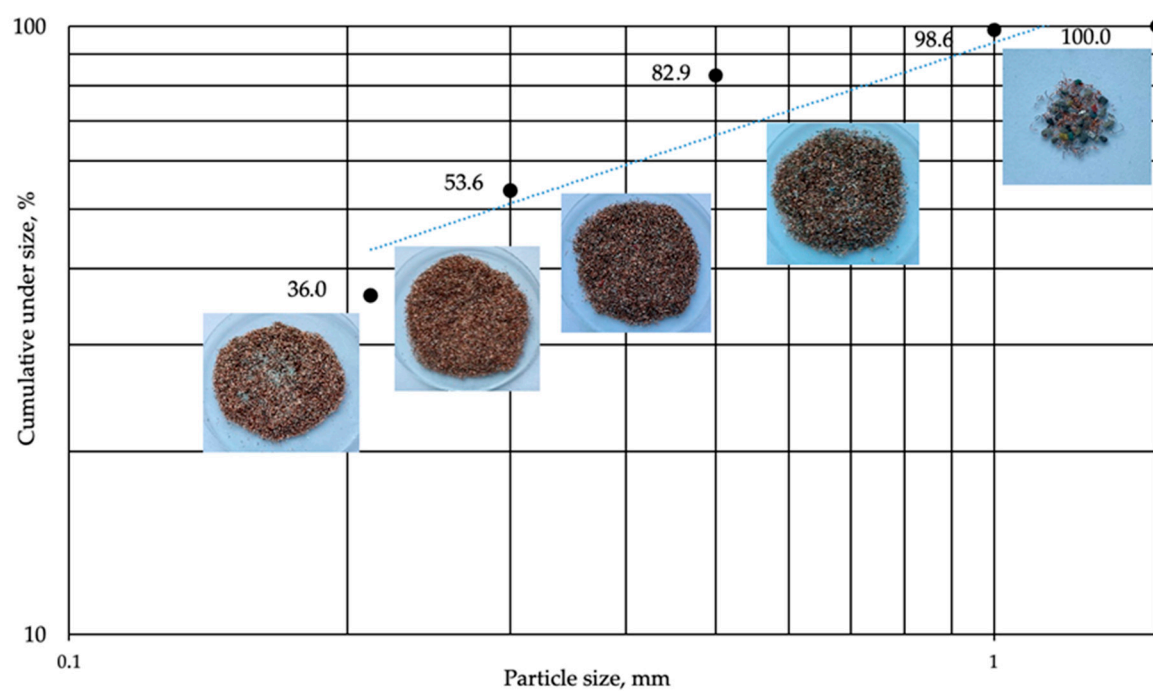


Figure S6. The PSD of the WEW sample and the images of products in different size groups.