Antimony recovery from lead-rich dross of lead smelter and conversion into antimony oxide chloride (Sb₄O₅Cl₂)

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Supporting information

Total number of pages: 7 (S1-S7)

Total number of figures: 6 (Figure S1-S6)

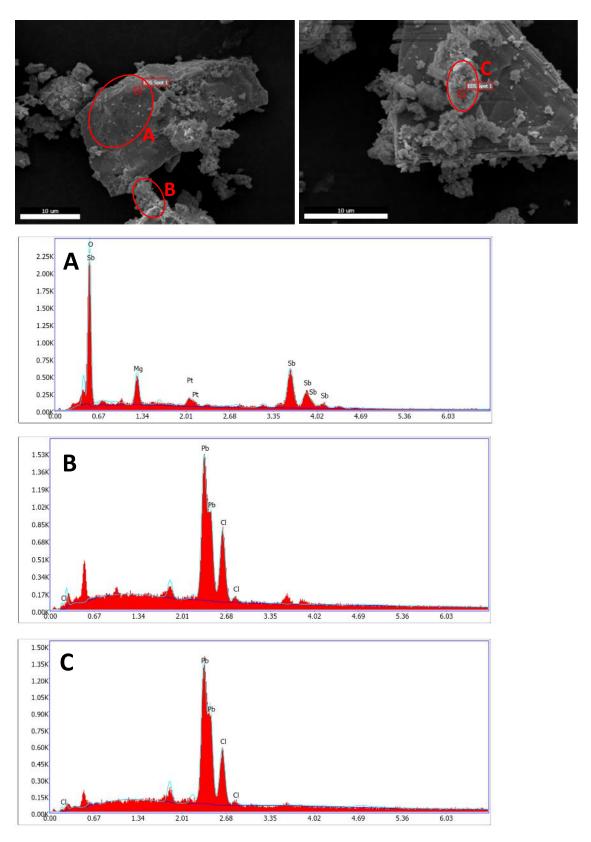


Figure S1: SEM micrographs and corresponding EDS spectra of particles from the leach residue of leaching dross1 using 2 mol L^{-1} hydrochloric acid in ethanol.

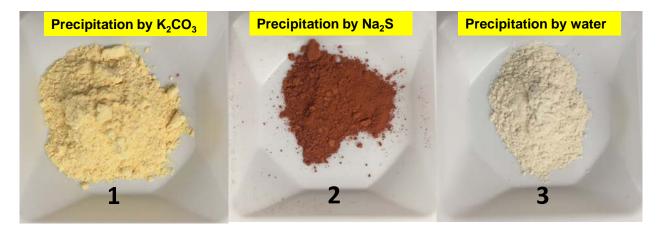
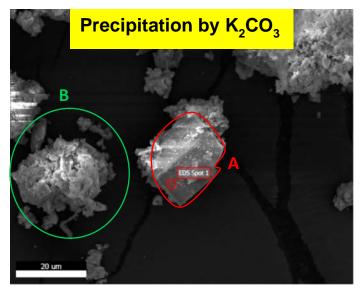
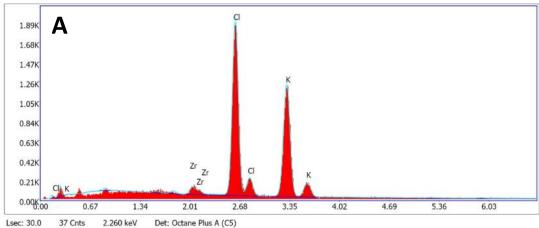


Figure S2: Photographs of precipitates formed after addition of: 1) potassium carbonate, 2) sodium sulfide and 3) water to the pregnant leach solution after leaching dross1 with 2 mol L⁻¹ hydrochloric acid in ethanol.





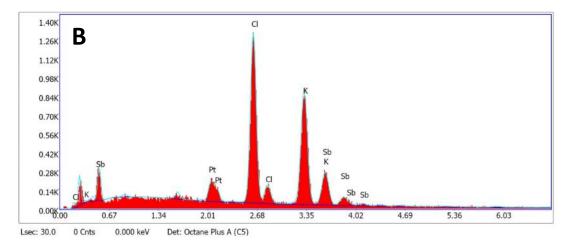
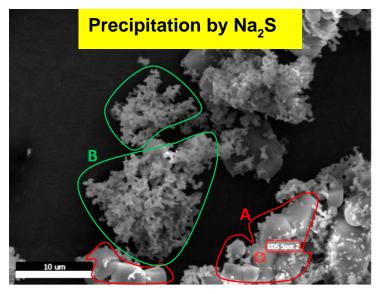
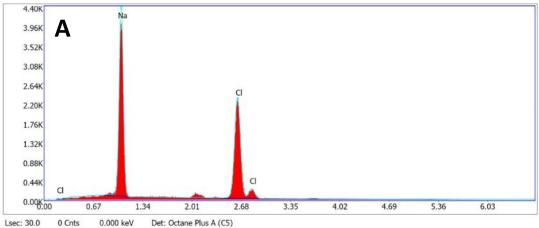


Figure S3: SEM micrographs and corresponding EDS spectra of particles from the precipitates formed after addition of potassium carbonate to the pregnant leach solution of leaching dross1 using 2 mol L^{-1} hydrochloric acid in ethanol.





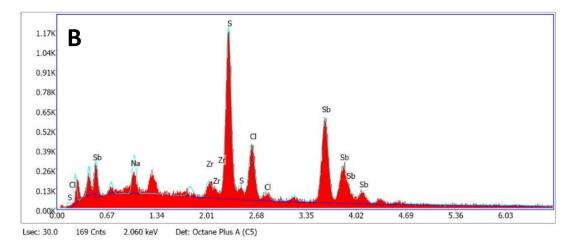
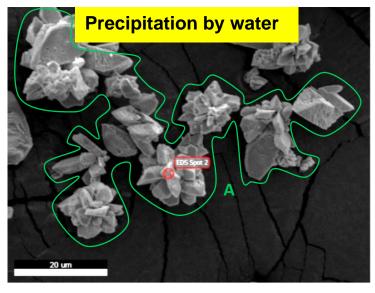


Figure S4: SEM micrographs and corresponding EDS spectra of particles from the precipitates formed after addition of sodium sulfide to the pregnant leach solution of leaching dross1 using 2 mol L⁻¹ hydrochloric acid in ethanol.



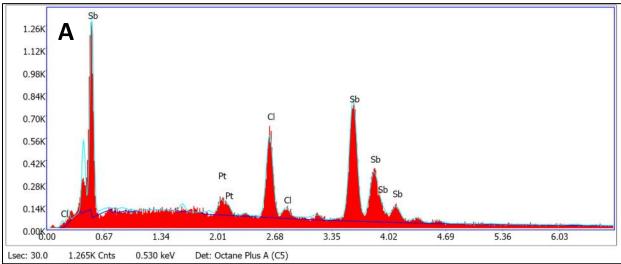


Figure S5: SEM micrographs and corresponding EDS spectra of particles from the precipitates formed after addition of water to the pregnant leach solution of leaching dross1 using 2 mol L⁻¹ hydrochloric acid in ethanol.

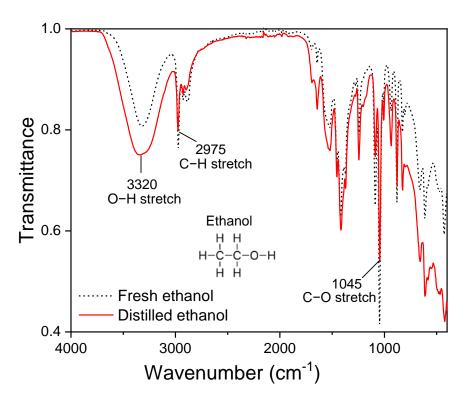


Figure S6: FTIR spectra of fresh ethanol and distilled ethanol.