

Supplementary Materials

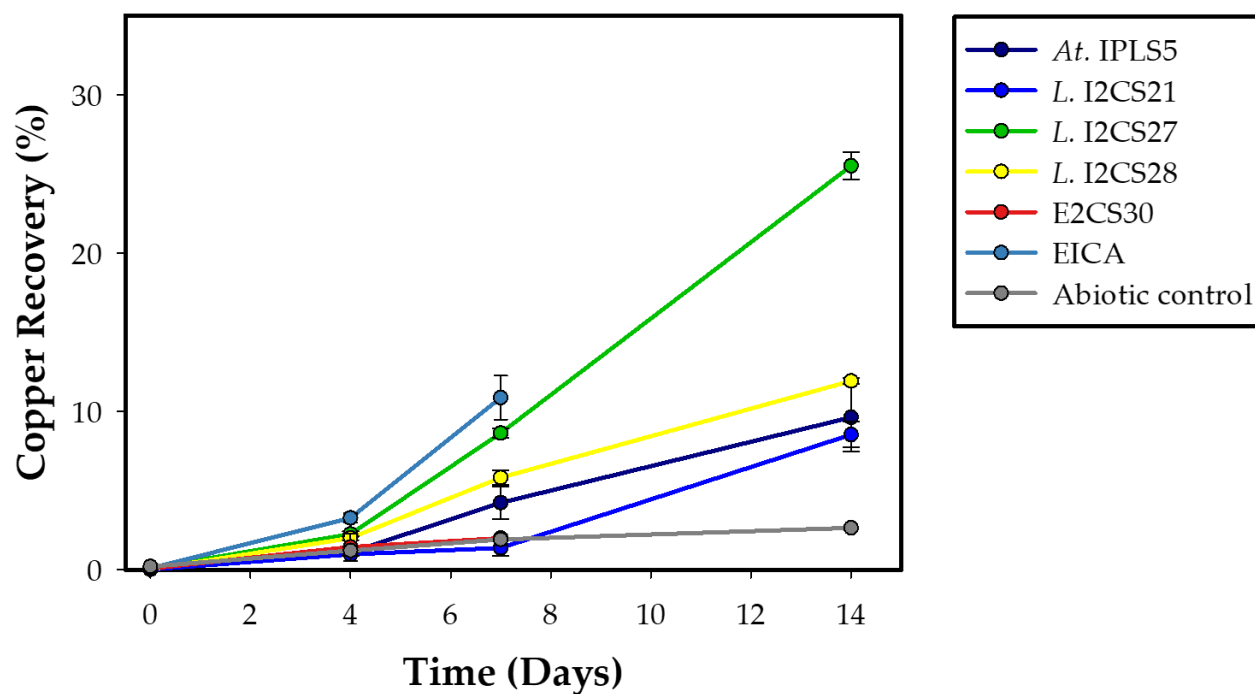


Figure S1. Copper recovery of mesophilic cultures from Amonalas mine at 37°C of incubation.

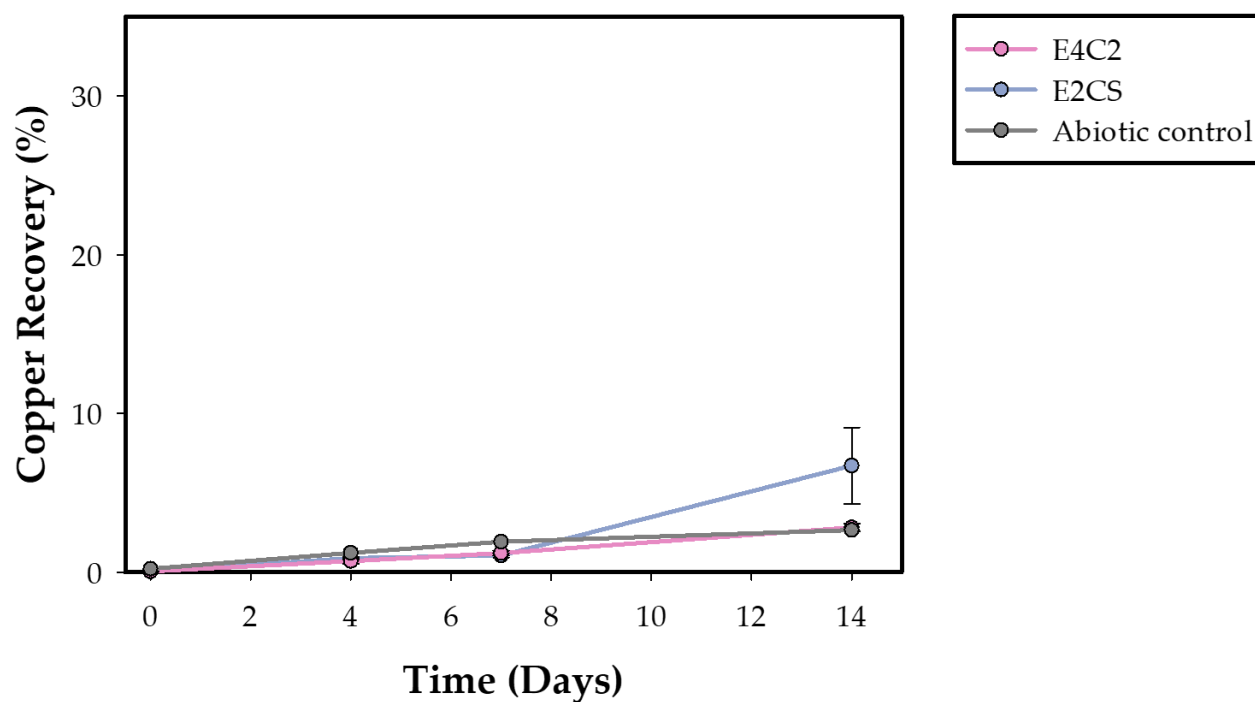


Figure S2. Copper recovery of thermotolerant cultures from Amonalas mine at 50°C of incubation.

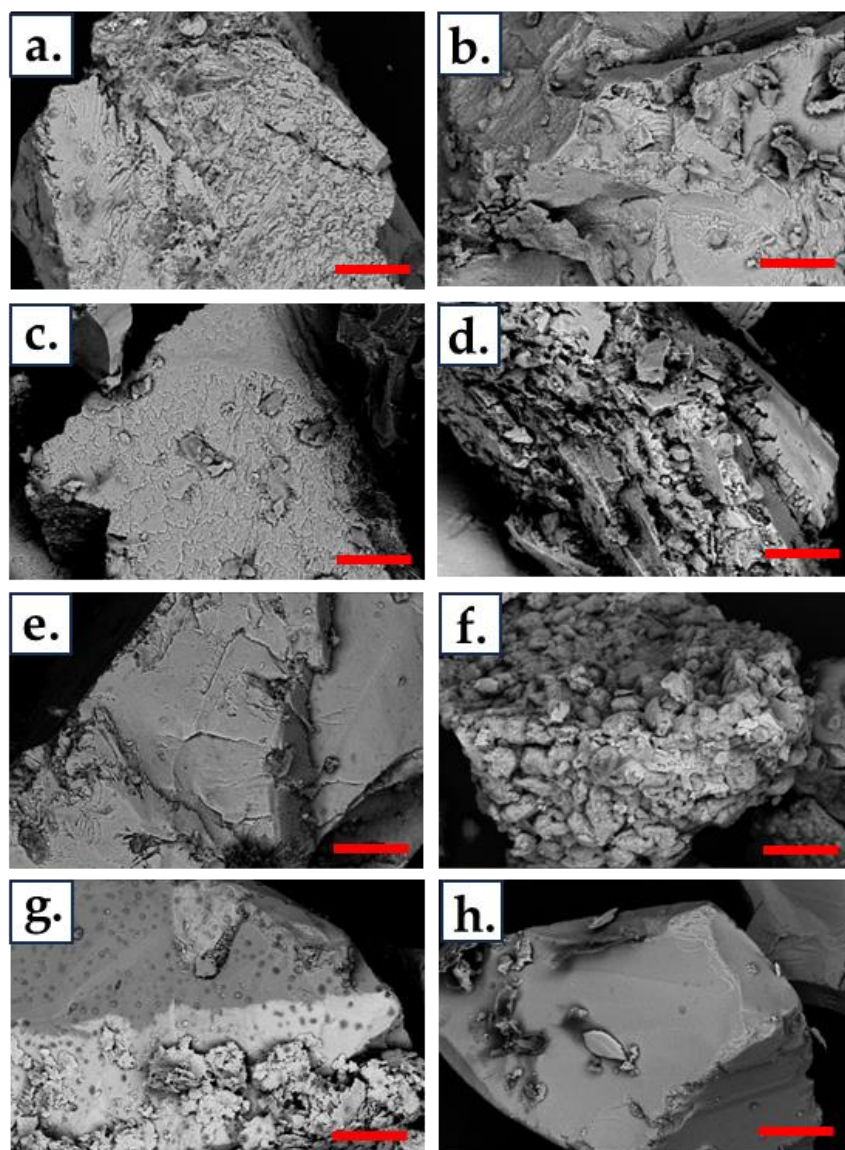


Figure S3. Representative SEM images of chalcopyrite grains from mesophilic isolates after 4 (a, c, e, g) and 14 days (b, d, f, h) of incubation at 37 °C. (a, b) IPLS5 strain (c, d), I2CS21 strain, (e, f) I2CS27 strain, and (g, h) I2CS28 strain. The red bars indicate 20 μm of 4,000X.

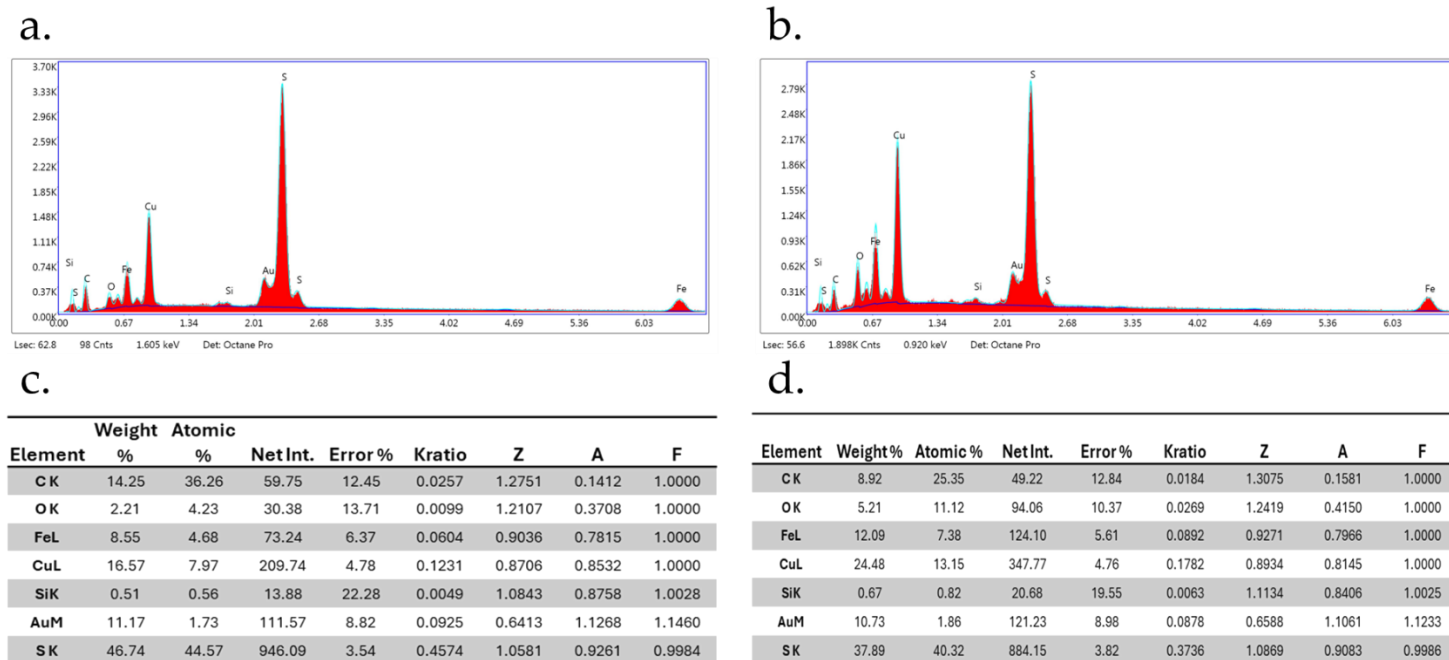


Figure S4. EDS spectrum (a, b) and absolute quantification results (c, d) of *Acidithiobacillus* IPLS5 growth on day 4 (a, c) and 14 (b, d).

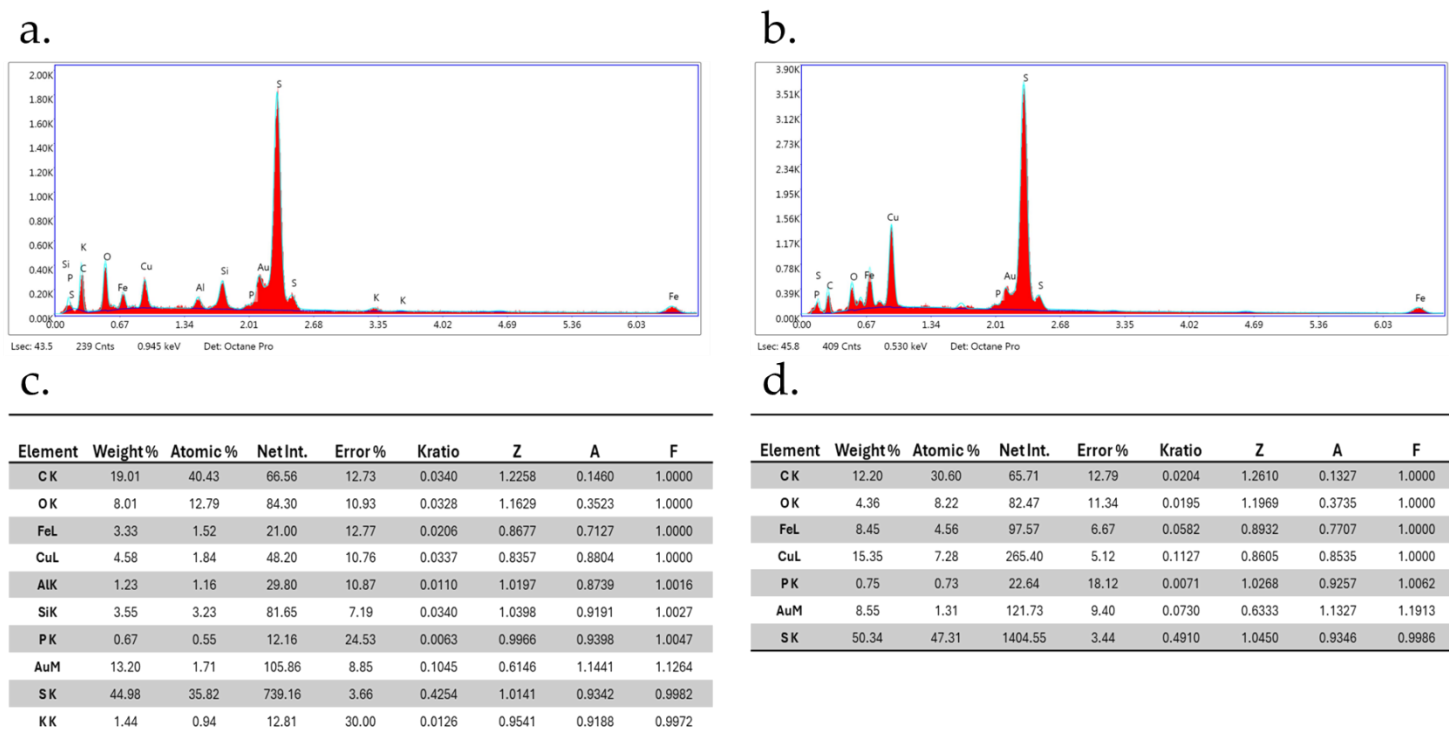


Figure S5. EDS spectrum (a, b) and absolute quantification results (c, d) of *Leptospirillum* I2CS21 growth on day four (a, c) and 14 (b, d).

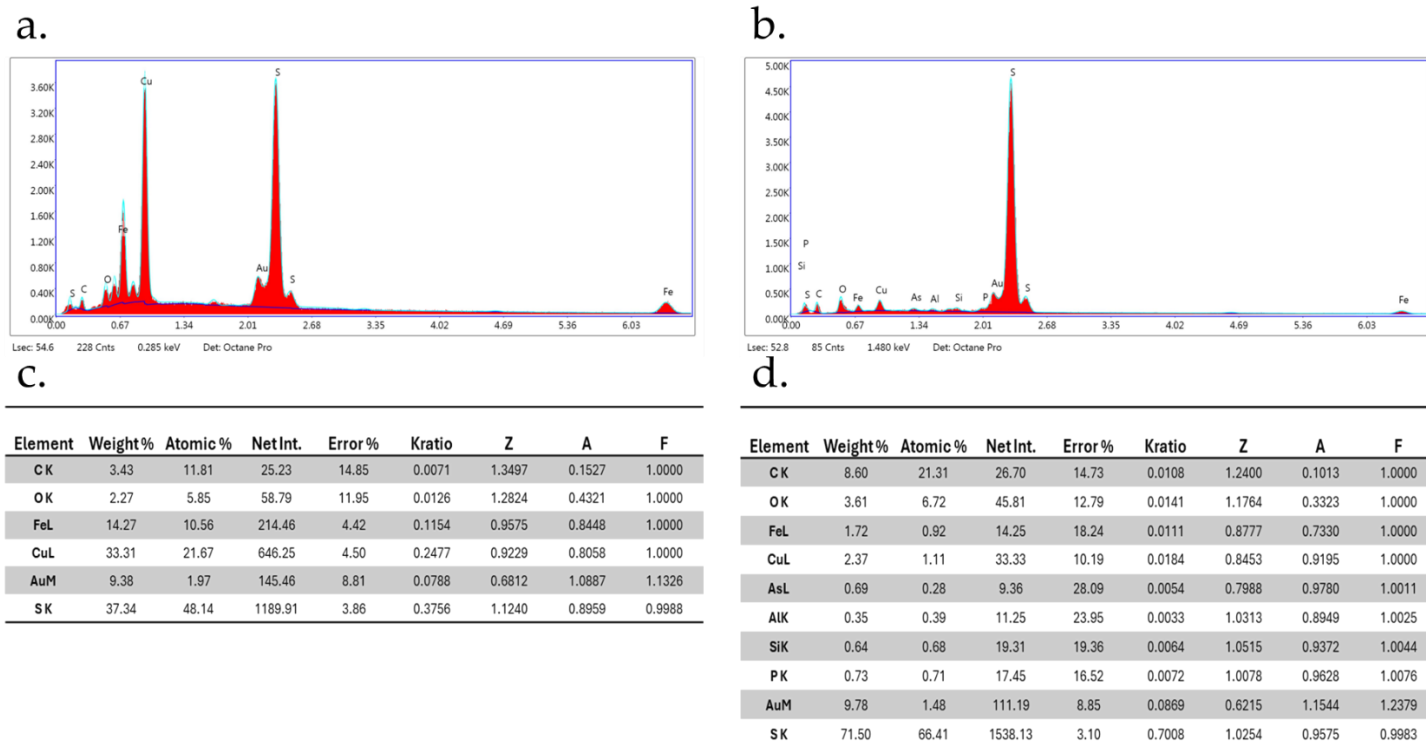


Figure S6. EDS spectrum (a, b) and absolute quantification results (c, d) of *Leptospirillum* I2CS27 growth on day four (a, c) and 14 (b, d).

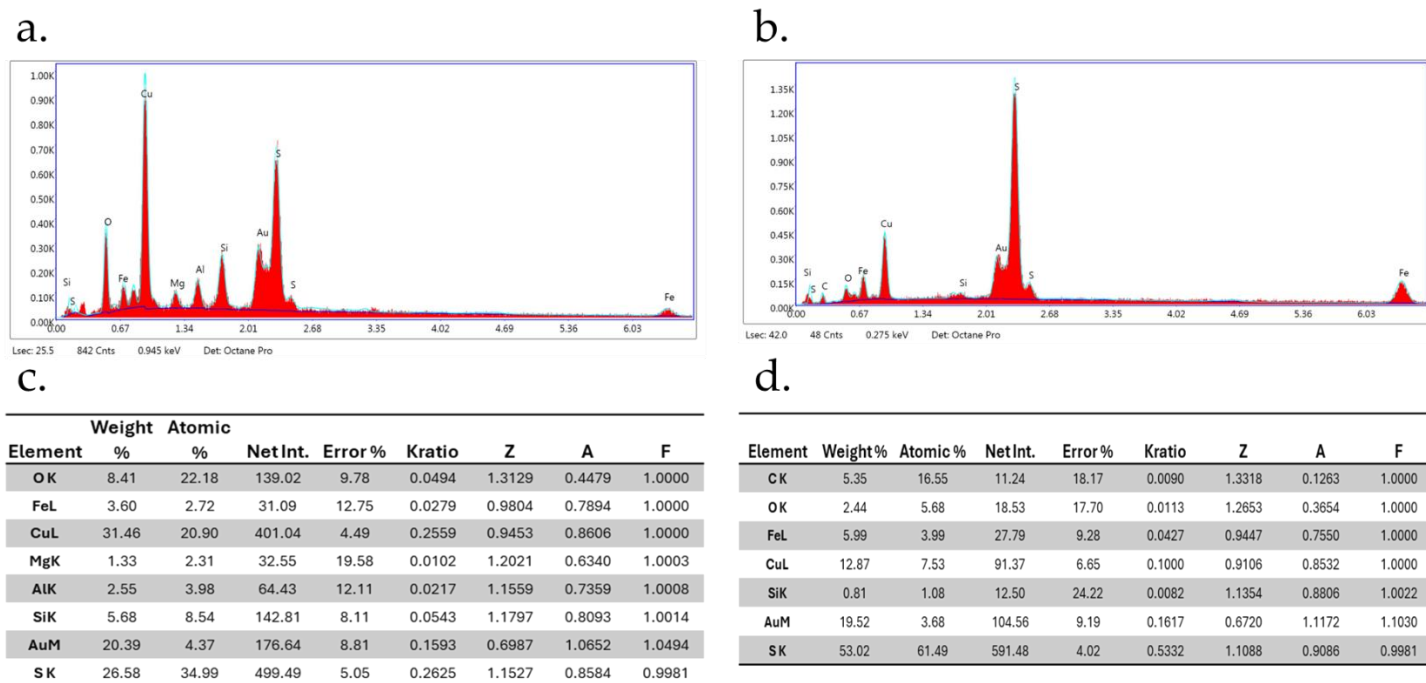


Figure S7. EDS spectrum (a, b) and absolute quantification results (c, d) of *Leptospirillum* I2CS28 growth on day four (a, c) and 14 (b, d).

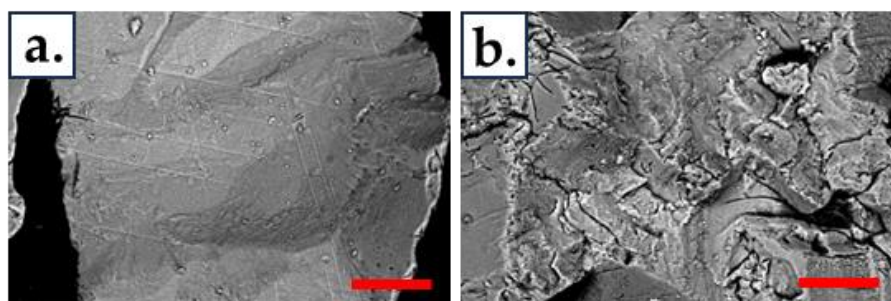


Figure S8. Representative SEM images of chalcopyrite grains from mesophilic enrichments after four days of incubation at 37°C. (a) E2C30 enrichment, and (b) EICA enrichment. The red bars indicate 20 μm of 4,000x.

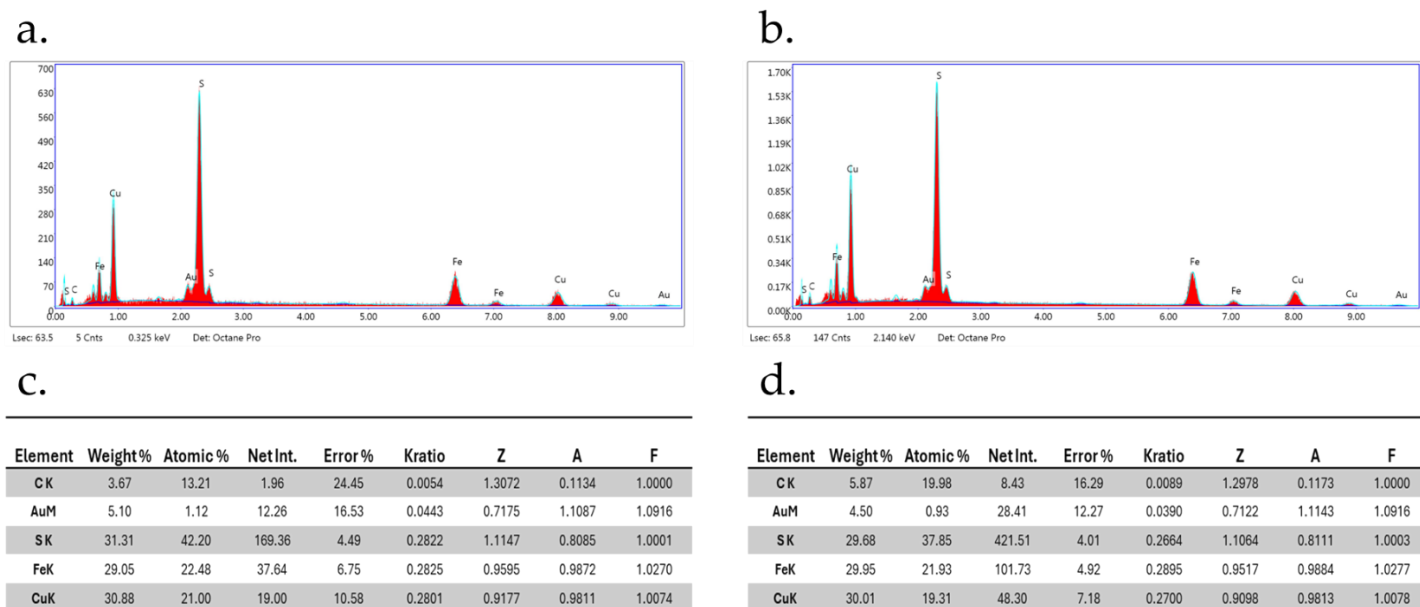


Figure S9. EDS spectrum (a, b) and absolute quantification results (c, d) of E2C30 (a, c) and EICA (b, d) enrichments on day 4.

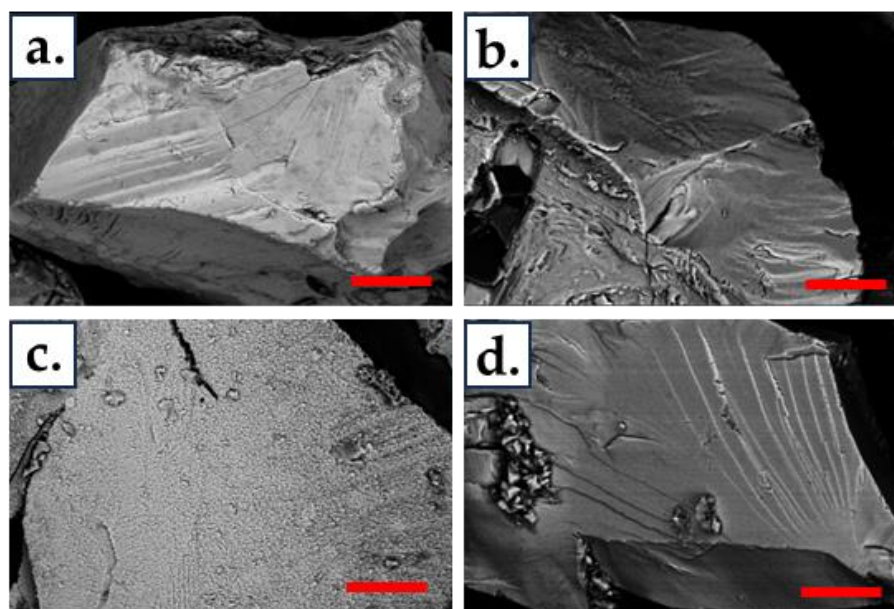


Figure S10. Representative SEM images of chalcopyrite grains from thermotolerant enrichments after 2 (a, b) and 14 days (c, d) of incubation at 50°C. (a, c) E2CS enrichment, and (b, d) 4C2 enrichment. The red bars indicate 20 μm of 4,000x.

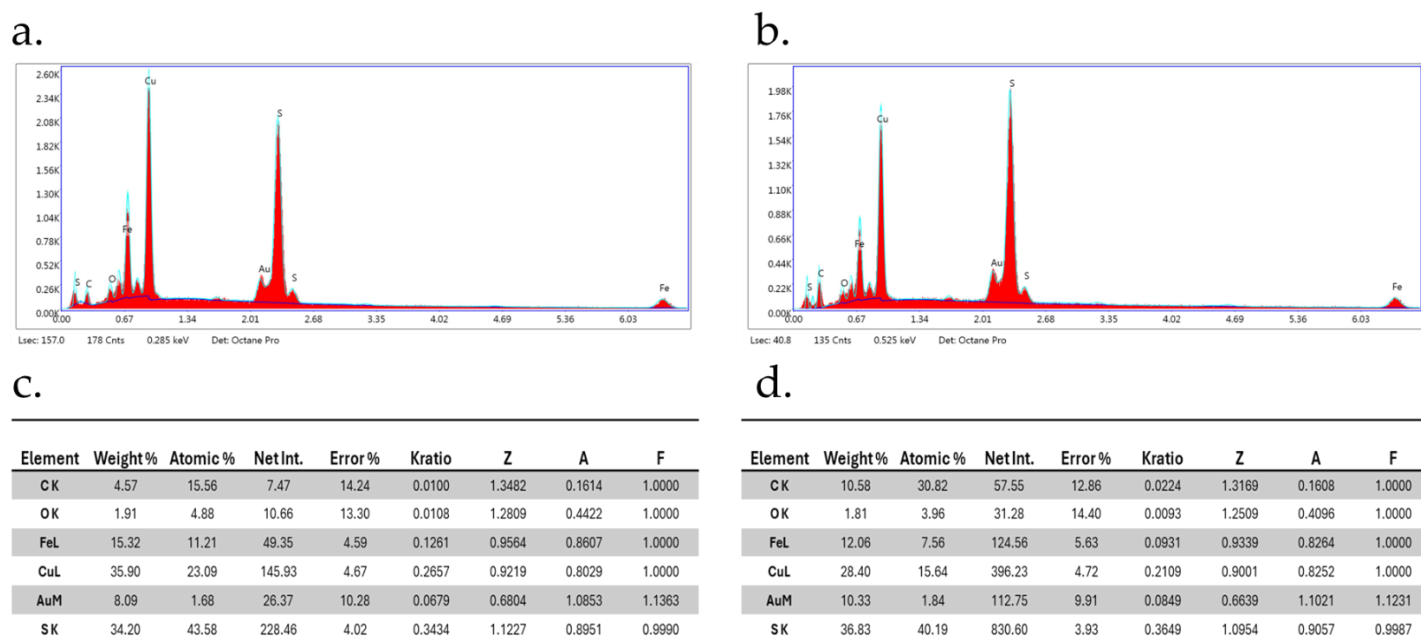


Figure S11. S4. EDS spectrum (a, b) and absolute quantification results (c, d) of E2CS enrichment growth on day 2 (a, c) and 14 (b, d).

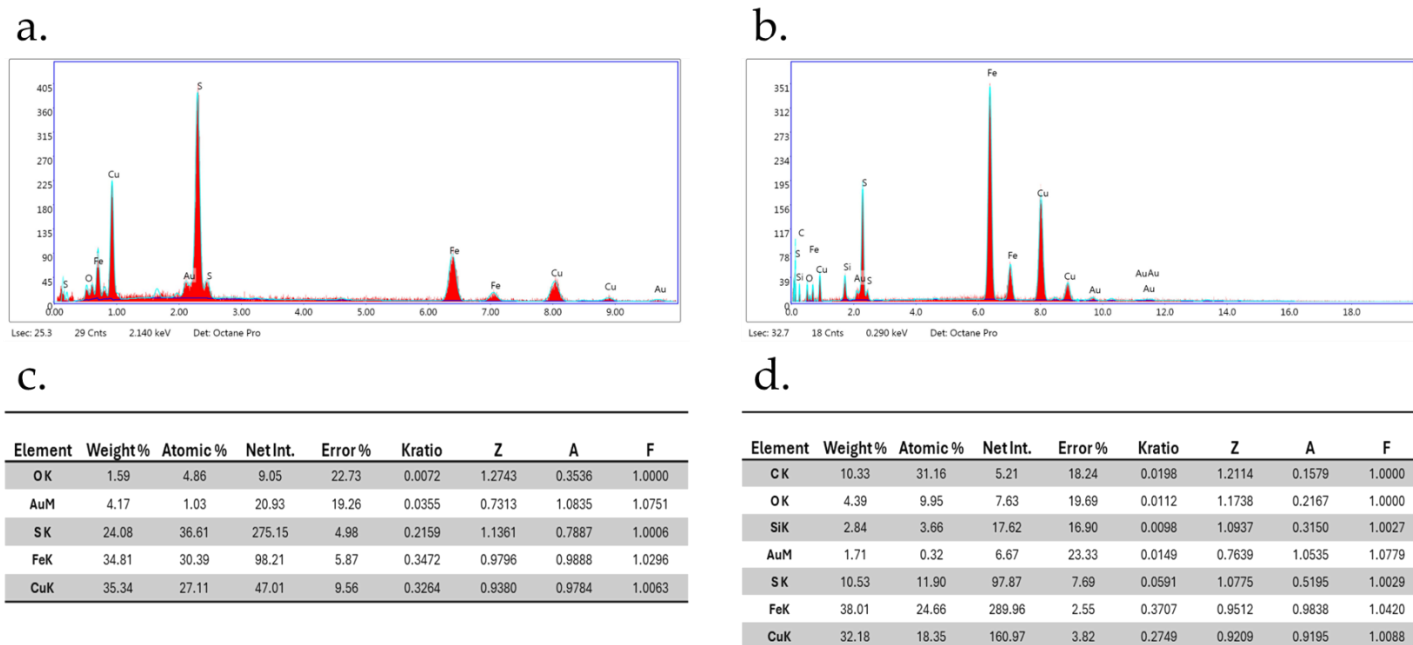


Figure S12. EDS spectrum (a, b) and absolute quantification results (c, d) of E4C2 enrichment growth on day 2 (a, c) and 14 (b, d).

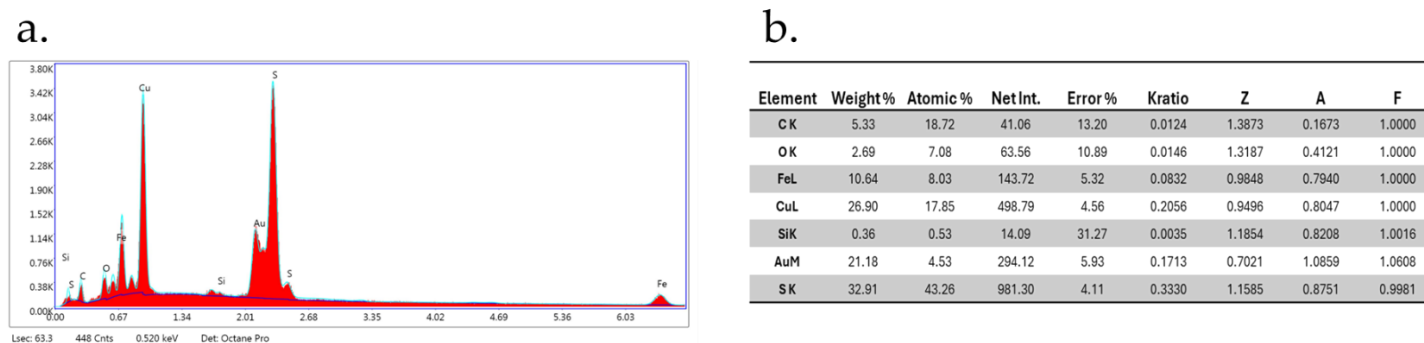


Figure S13. EDS spectrum (a) and absolute quantification results (b) of Abiotic control.