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Supplementary materials

Long-term acid generation and heavy metal leaching from the tailings of Shimokawa mine, Hokkaido, Japan: Column study under natural condition

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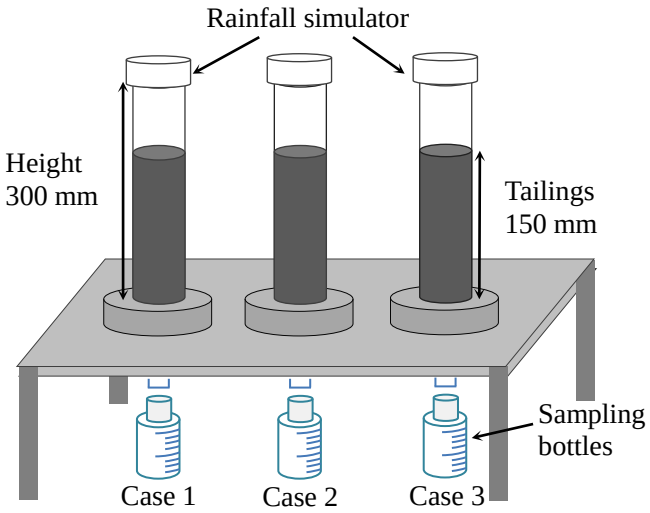


Figure S1 Schematic diagram of the columns used

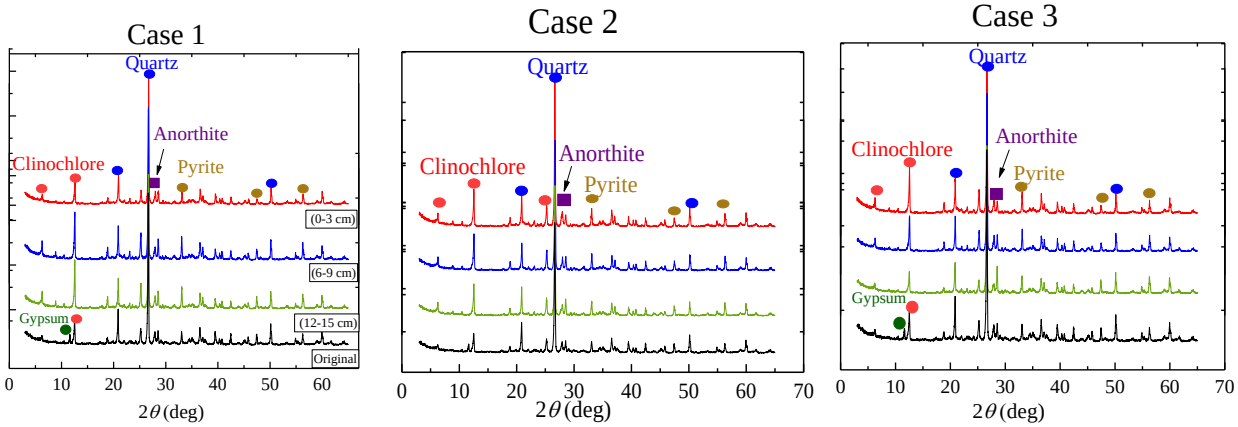


Figure S2 Results of mineralogical characterization by XRD of the tailings before experiment (black) and after experiment (red: uper tailings; blue: deeper tailings; green: bottom tailings)

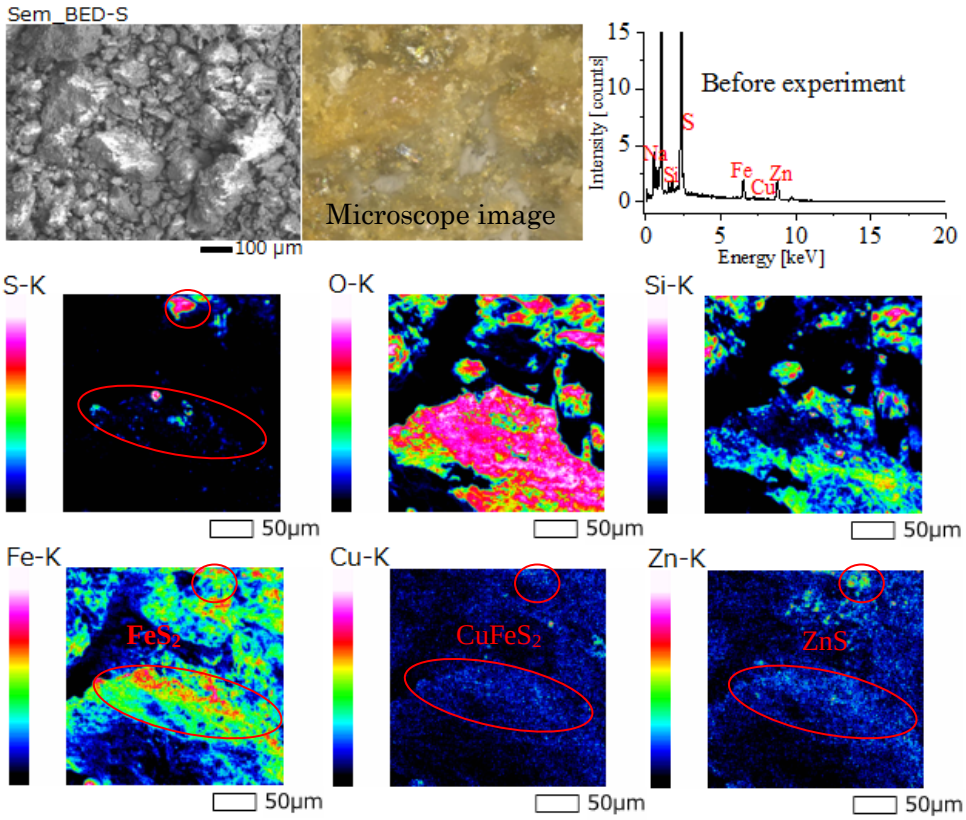


Figure S3 SEM photomicrographs, optical photomicrograph, and corresponding elemental maps of S, O, Si, Fe, Cu and Zn in the pre-experiment tailings sample

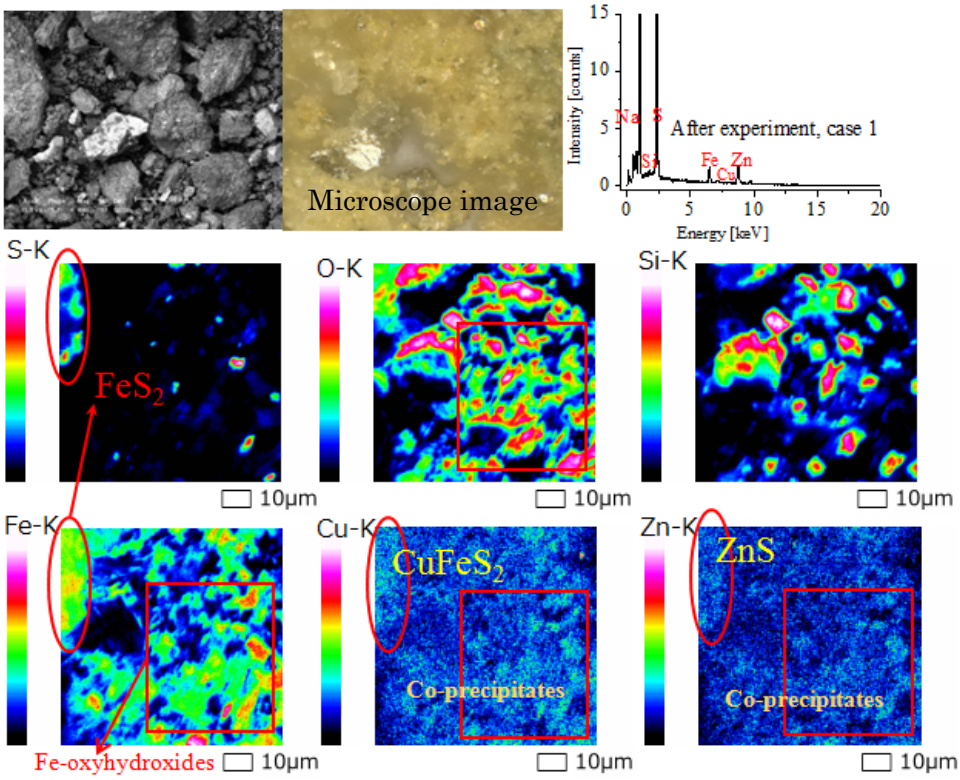


Figure S4 SEM photomicrographs, optical photomicrograph, and corresponding elemental maps of S, O, Si, Fe, Cu and Zn in the post-experiment tailings sample (Case 1)

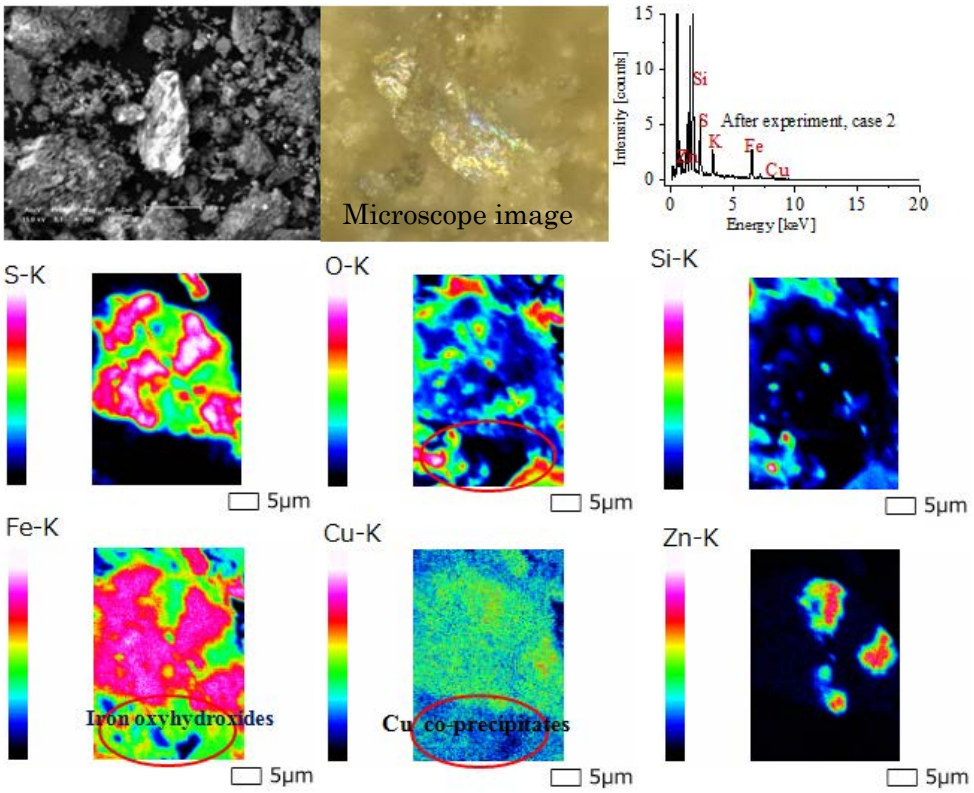


Figure S5 SEM photomicrographs, optical photomicrograph, and corresponding elemental maps of S, O, Si, Fe, Cu and Zn in the post-experiment tailings sample (Case 2)

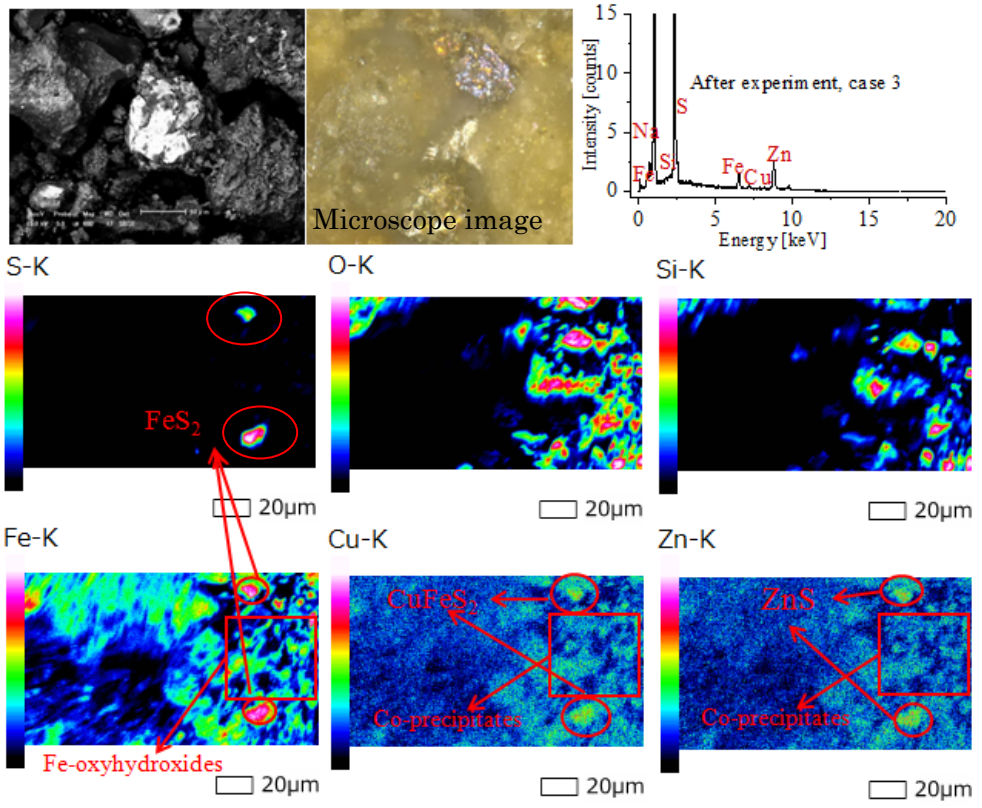


Figure S6 SEM photomicrographs, optical photomicrograph, and corresponding elemental maps of S, O, Si, Fe, Cu and Zn in the post-experiment tailings sample (Case 3)

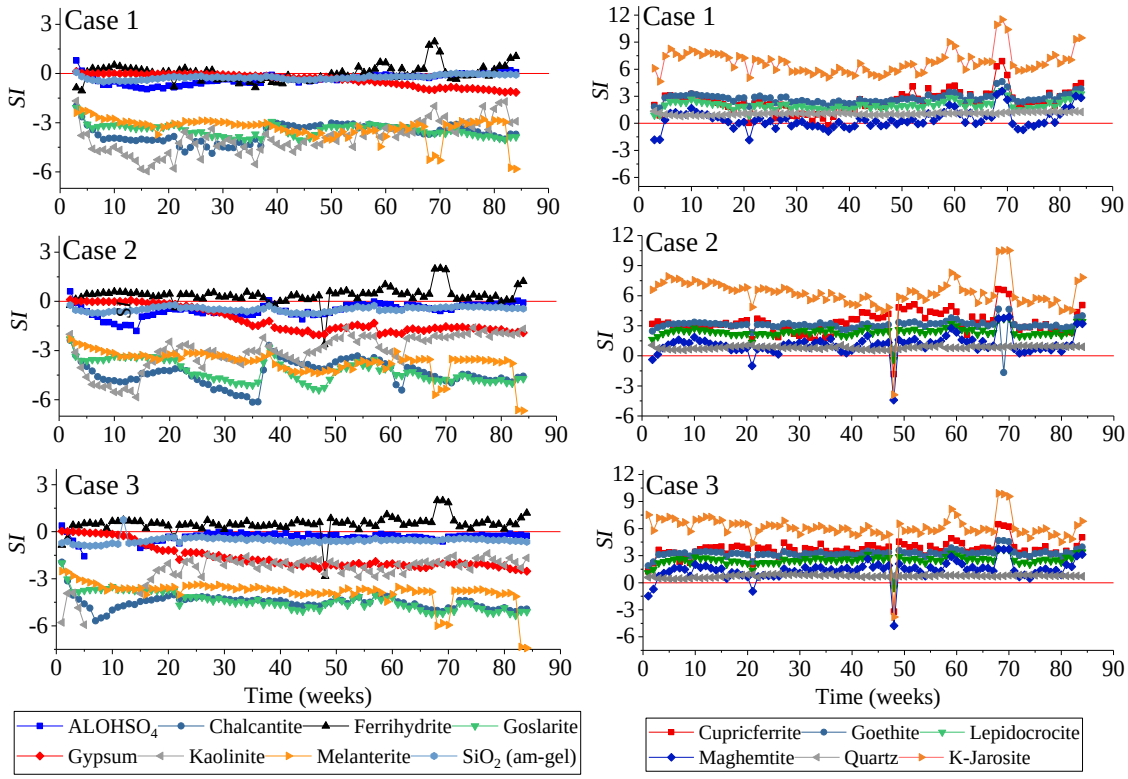


Figure S7 Saturation indices (*SI*) of effluents from column experiments (Left: *SIs* ≤ 0; Right: *SIs* > 0)