

## Supplementary materials

**S (supplementary material) 1:** The area has a subtropical moist monsoonal climate with an average temperature of 16.7 °C and an annual rainfall of about 1 421 mm. The tailings pond had been abandoned for about a year; the tailings surface of the pond was dry and completely devoid of vegetation. Random sub-samples from the Pb/Zn mine tailings pond were taken to a depth of 30 cm and combined into a bulk sample. The tailings were air-dried, homogenized, passed through a 2-mm sieve, and subjected to physico-chemical characterization.

**S 2:** The program of soil sample digestion consisted of three consecutive steps: 120 °C, 200 w for 5 min, 180 °C, 600 w for 10 min and 200 °C, 800 w for 20 min.

**S 3:** The program of plant sample digestion consisted of three consecutive steps: 120 °C, 200 w for 5min, 180 °C, 600 w for 8min and 200 °C, 800 w for 10min.