Bioleaching of Valuable Elements from Red Mud: A Study on the Potential of Non-Enriched Biomass

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Supplementary Materials

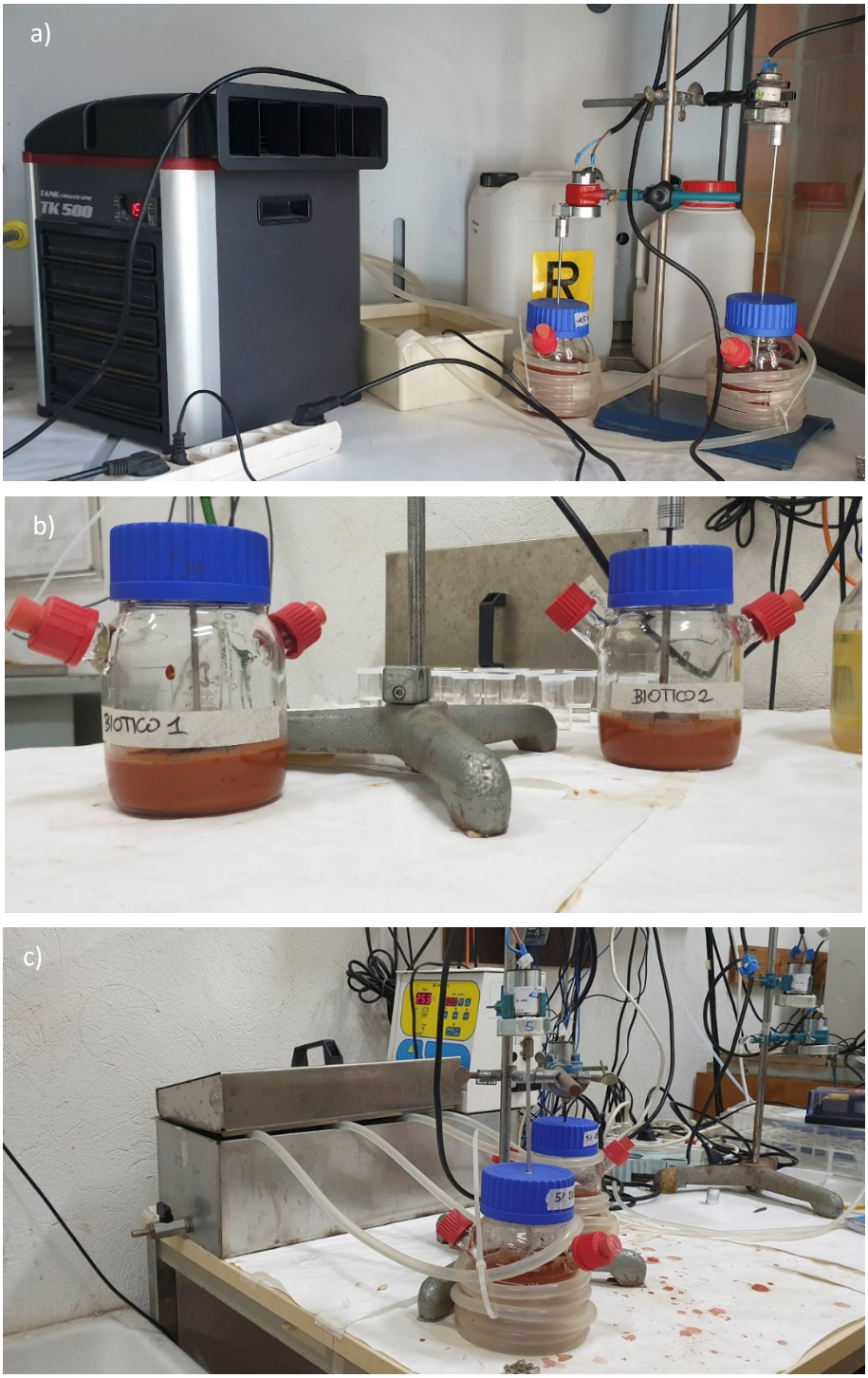

Figure S1. Experimental setup for bioleaching tests carried out at low (a), room (b), and high temperature (c).

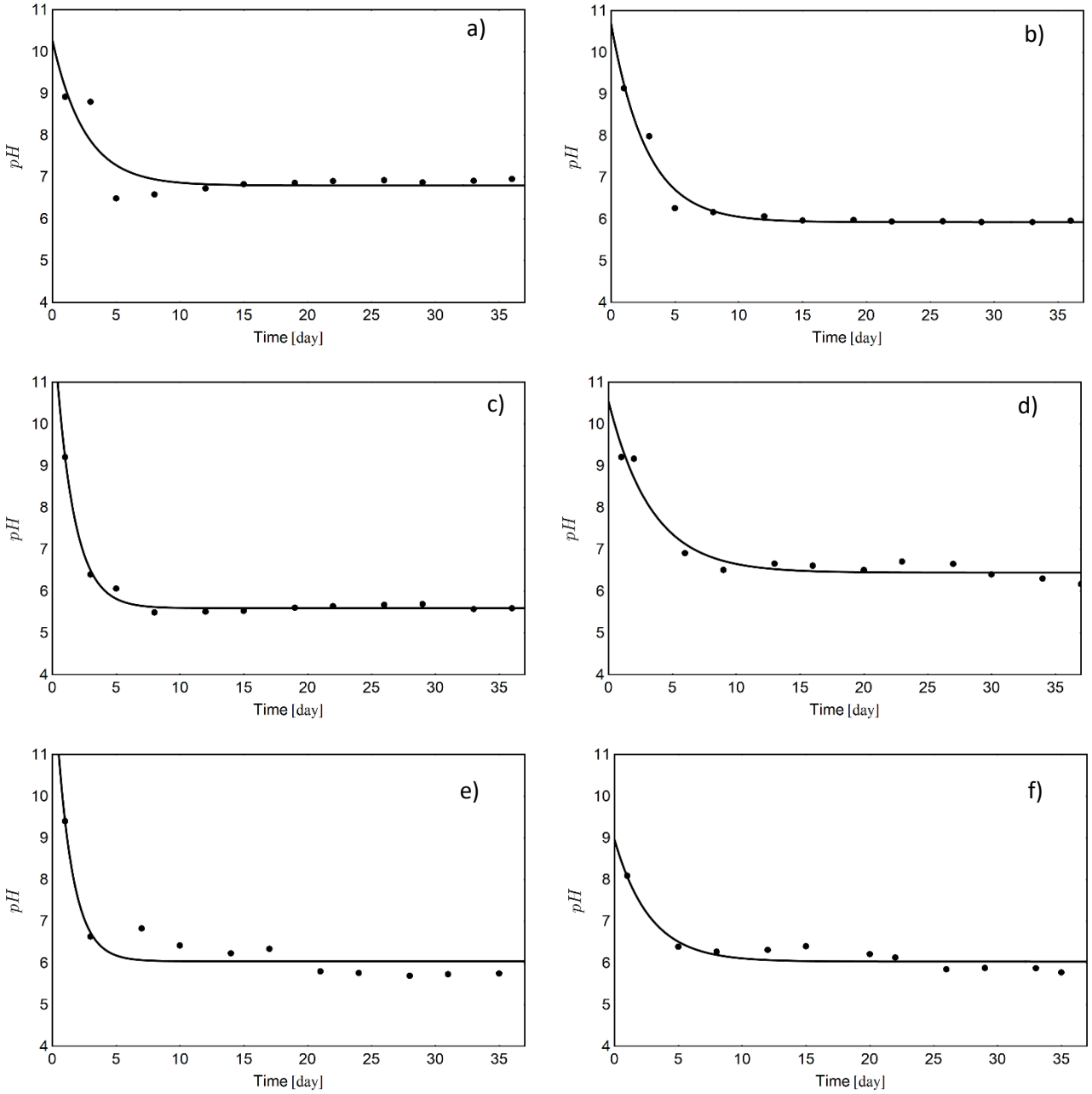

Figure S2. Pseudo-first order model fitting for RM-II_2%_15 °C (a) (R^2=0.72), RM-II_2%_22 °C (b) (R^2=0.96), RM-II_2%_28 °C (c) (R^2=0.98), RM-II_5%_15 °C (d) (R^2=0.93), RM-II_5%_22 °C (e) (R^2=0.85), RM-II_5%_28 °C (a) (R^2=0.87)

$$PFO = pH^{\infty}(1 - n \cdot e^{-\omega t}) \quad \text{(S1)}$$

$$R^2 = 1 - \frac{\sum_1^n (Y_{sp.} - Y_{fit})\text{^}2}{\sum_1^n (Y_{sp.} - Y_{sp.\ average.})\text{^}2} \quad \text{(S2)}$$

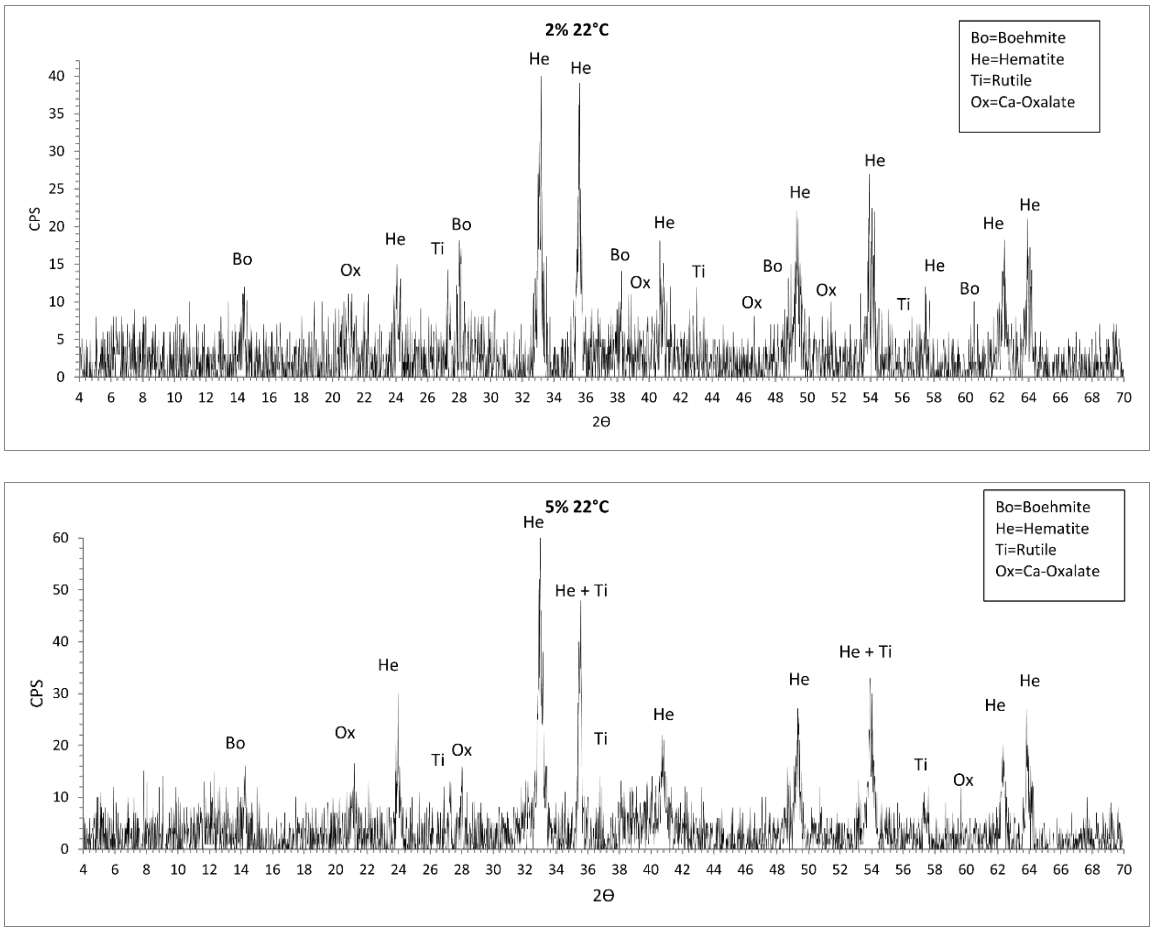

Figure S3. XRD patterns of treated RM-II samples at different S/L ratios and 22 °C

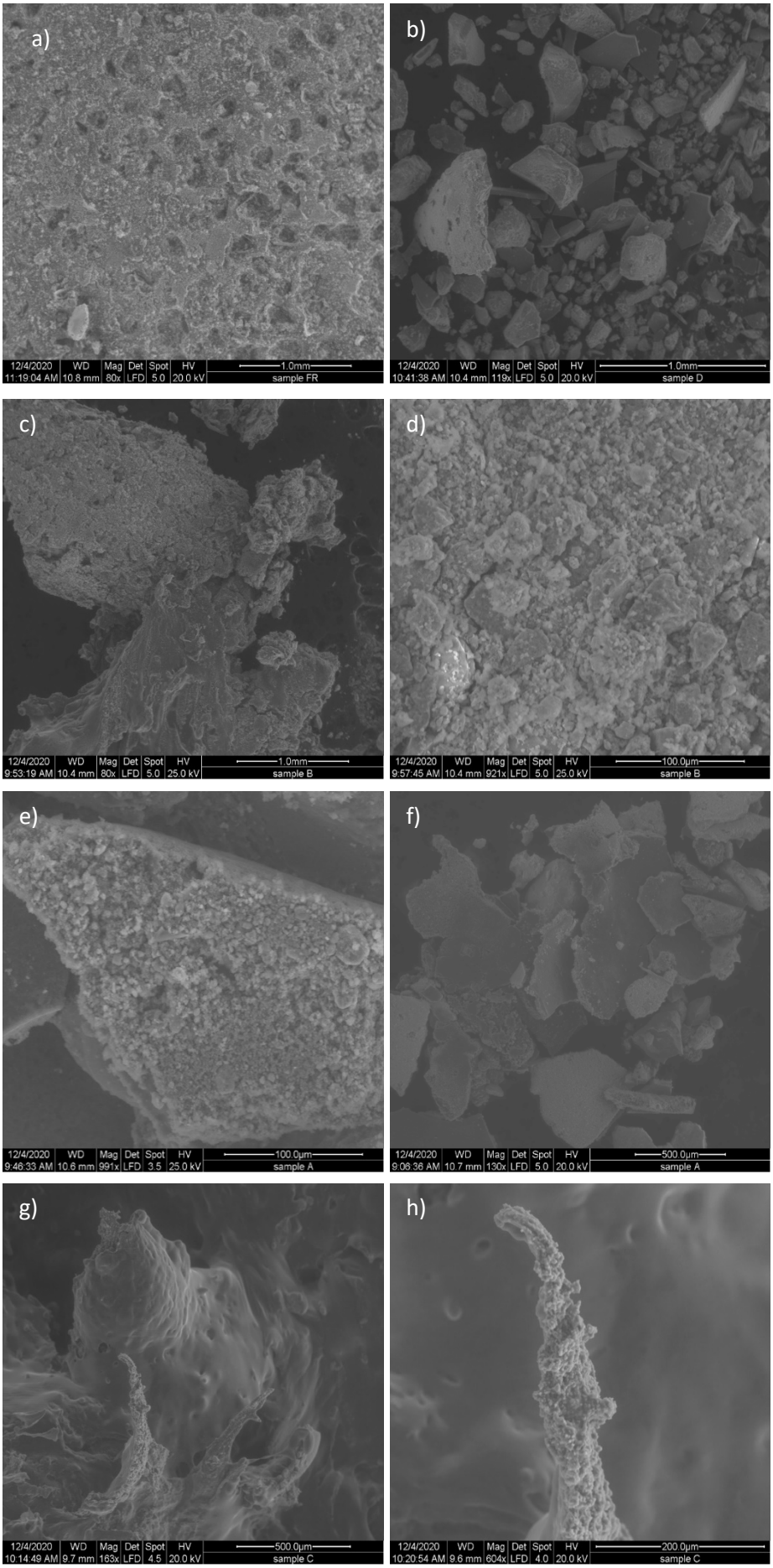

Figure S4. SEM images of raw RM-II (a) and RM after trials RMII_5%_28°C (b), RMII_2%_28°C (c,d), RMII_2%_22° (e,f), RMII_5%_22° (g,h).