Supplementary Materials

Sintering Behavior and Chlorine Volatilization Mechanism of Cl-Containing Solid Waste in Clay Brick Production: Implications for Tunnel Kiln Applications

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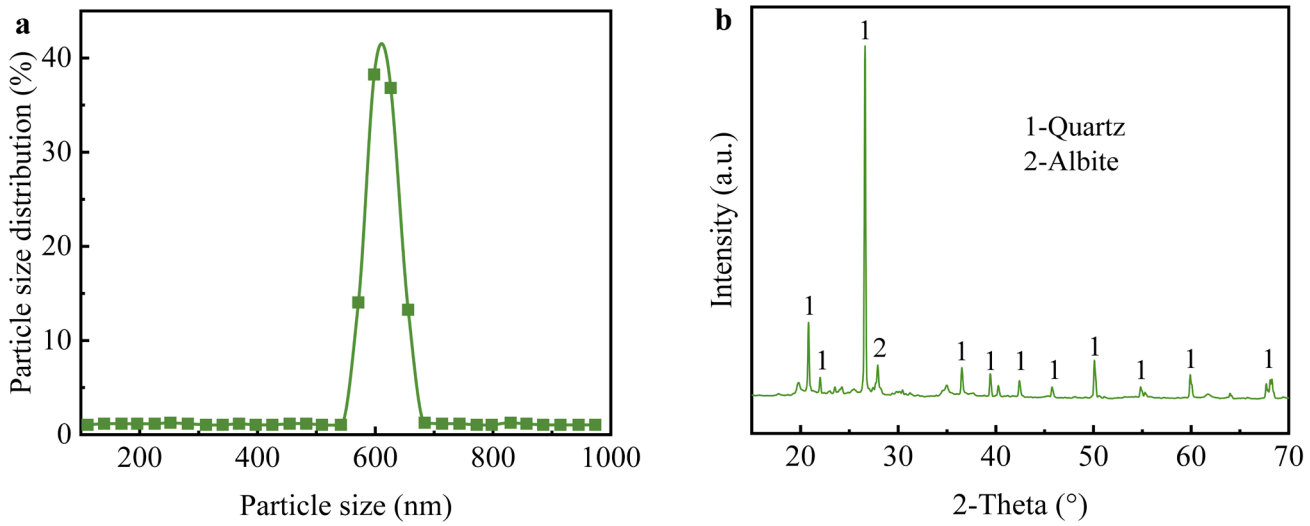


Figure S1. Properties of clay (**a**) Particle size distribution and (**b**) XRD.

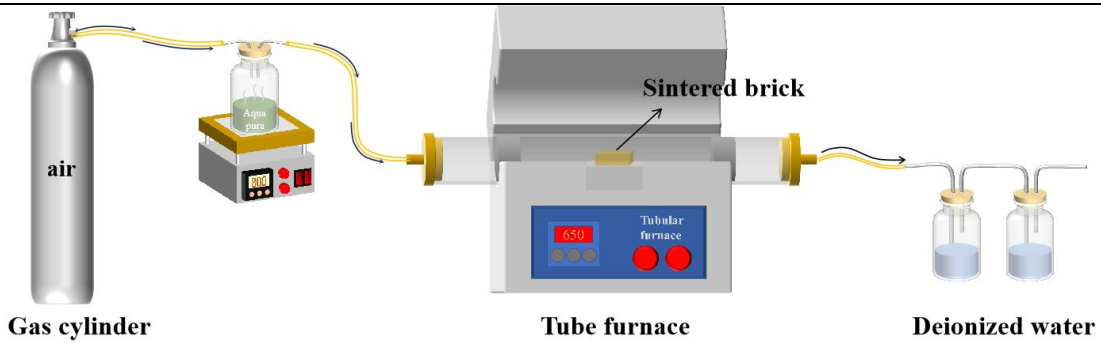


Figure S2. Schematic diagram for the evaporation of Cl salts with the introduction of water vapor.

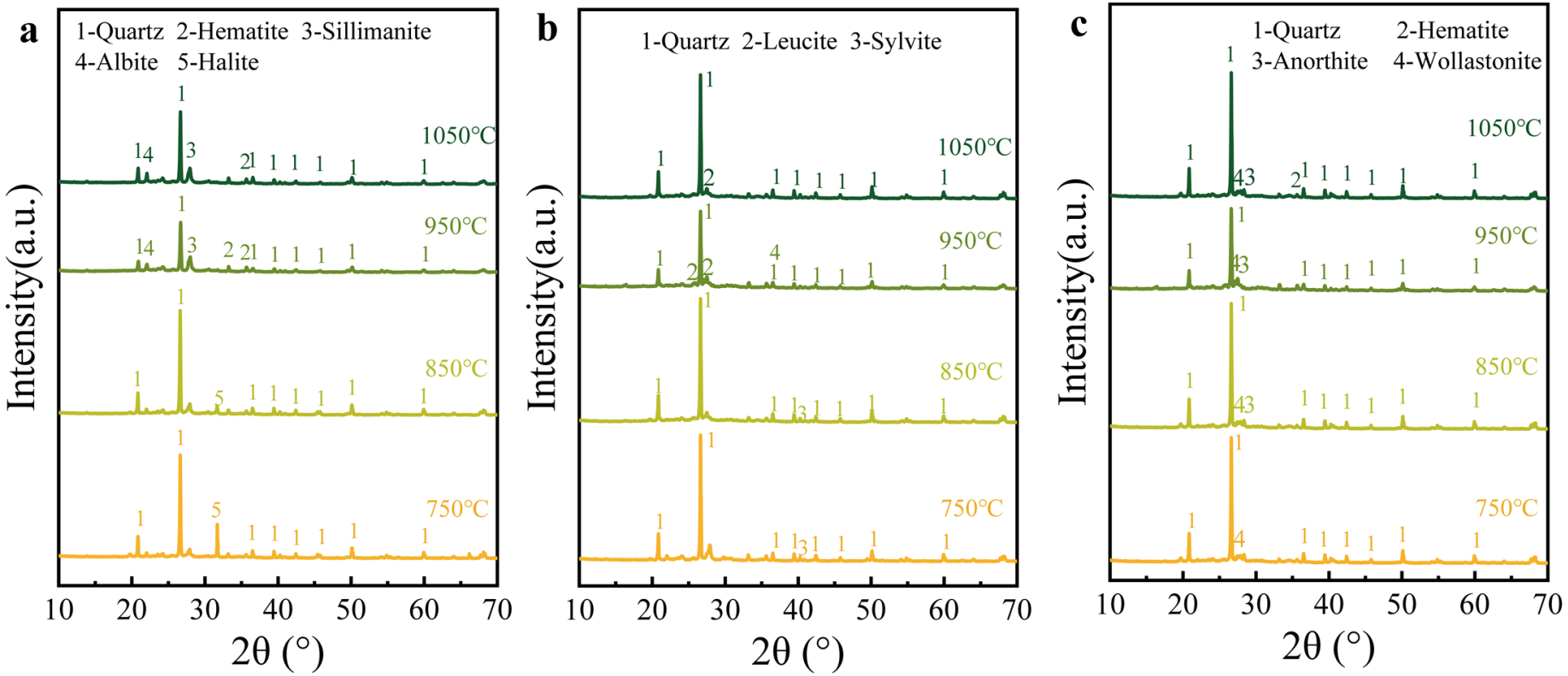


Figure S3. XRD patterns of sintered bricks incorporated 10 wt% of Cl salts: (**a**) NaCl, (**b**) KCl and (**c**) $CaCl_2$.

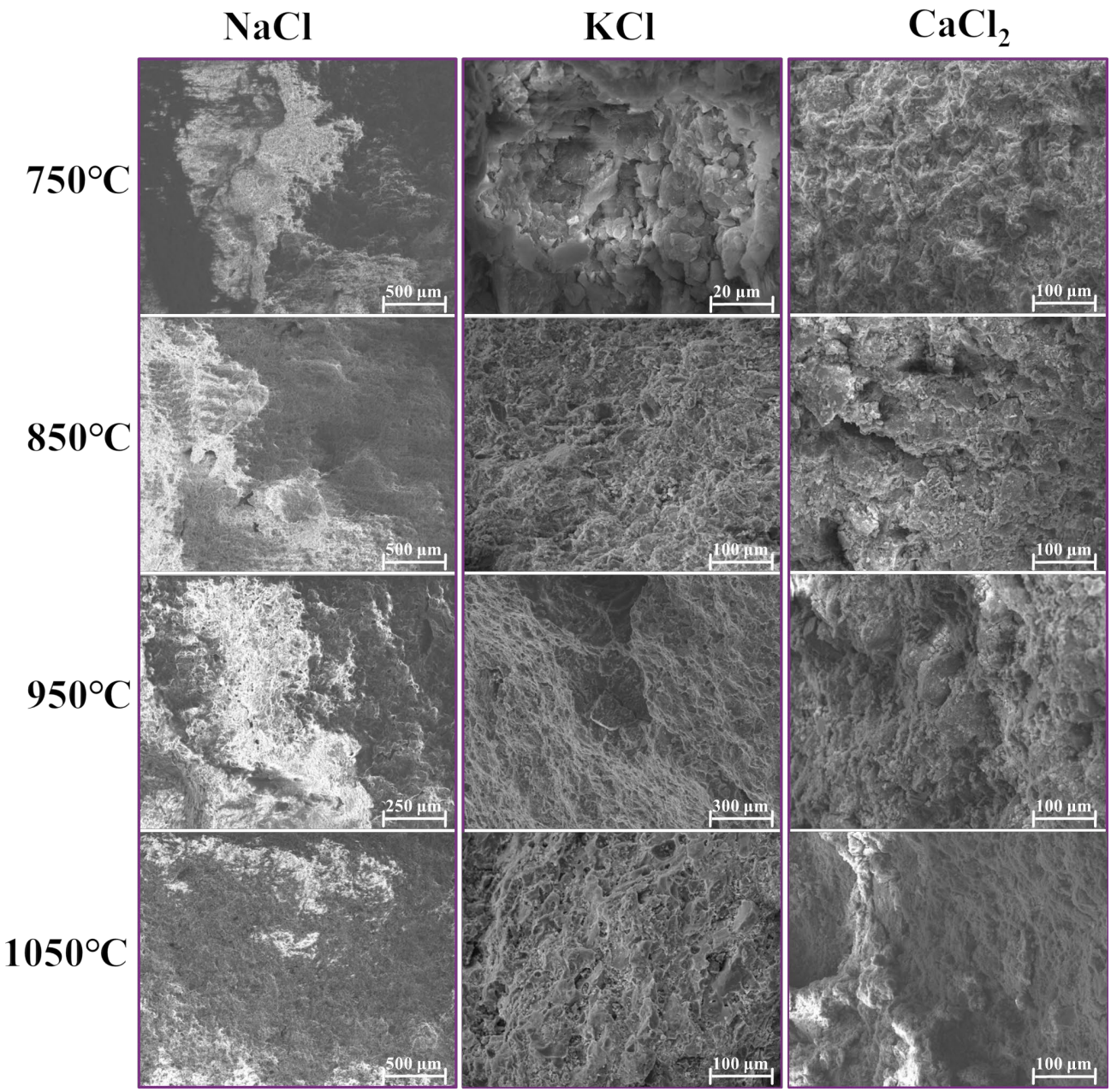


Figure S4. SEM photos of sintered bricks with different types of chloride salts incorporated.

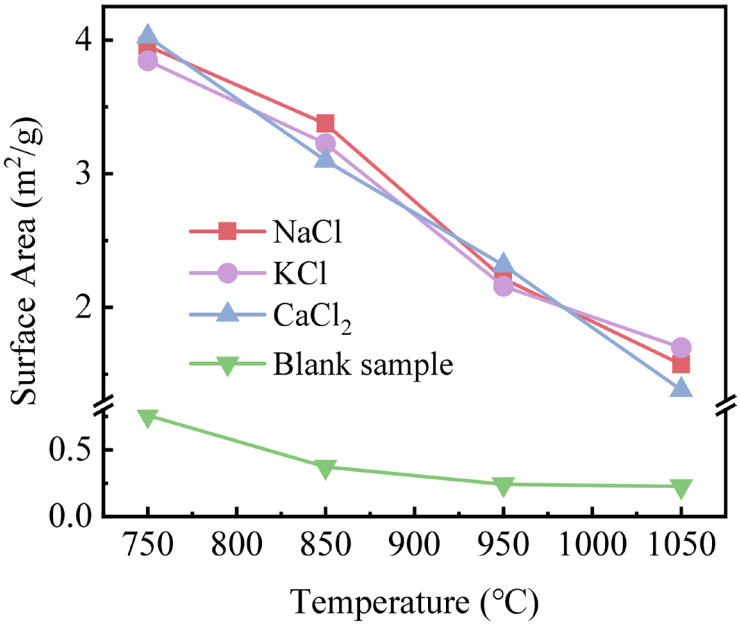


Figure S5. Specific surface area of sintered bricks doped with different types of Cl salts.

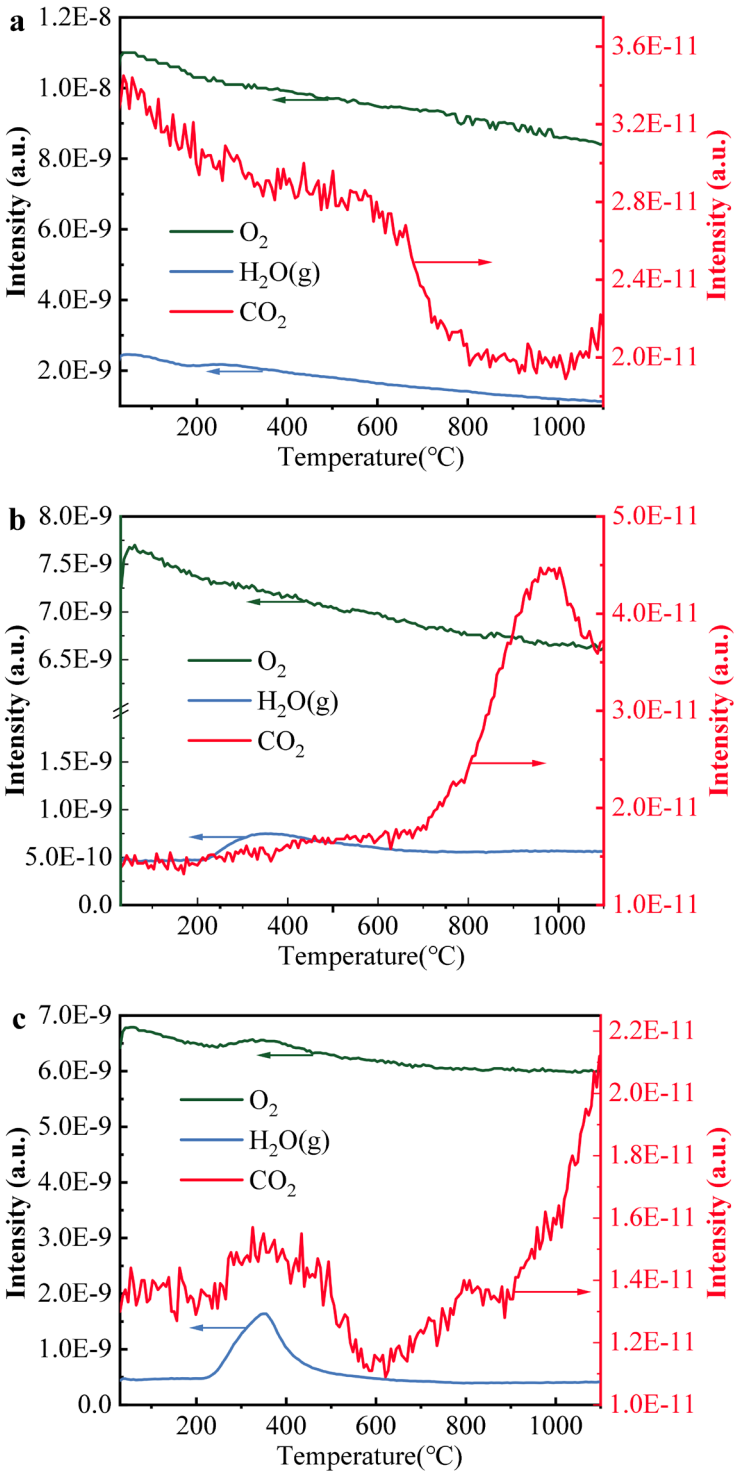


Figure S6. Evolution profiles of O_2, $H_2O(g)$, and CO_2 released during the heating of clay mixed with (**a**) NaCl, (**b**) KCl, and (**c**) $CaCl_2$.

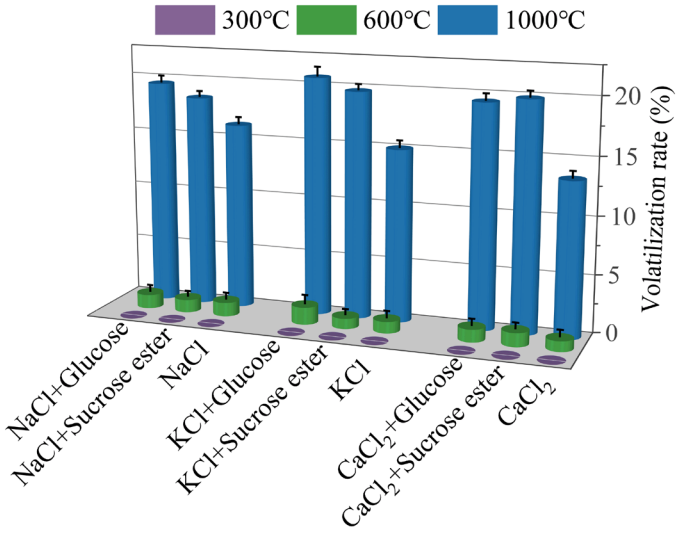


Figure S7. Volatilization rates of Cl salts at 300, 600 and 1000 °C with the introduction of glucose and sucrose ester.

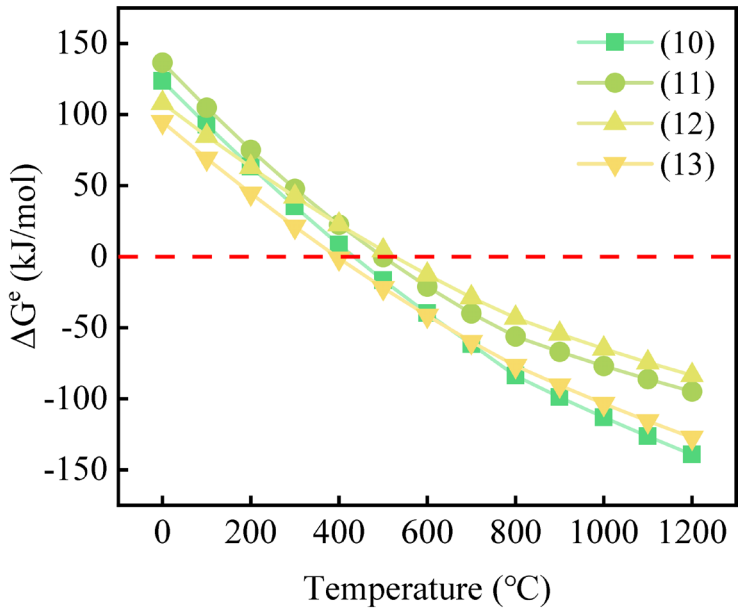


Figure S8. Calculated Gibbs free energies for equations (10-13) at temperatures of 0-1200 °C.