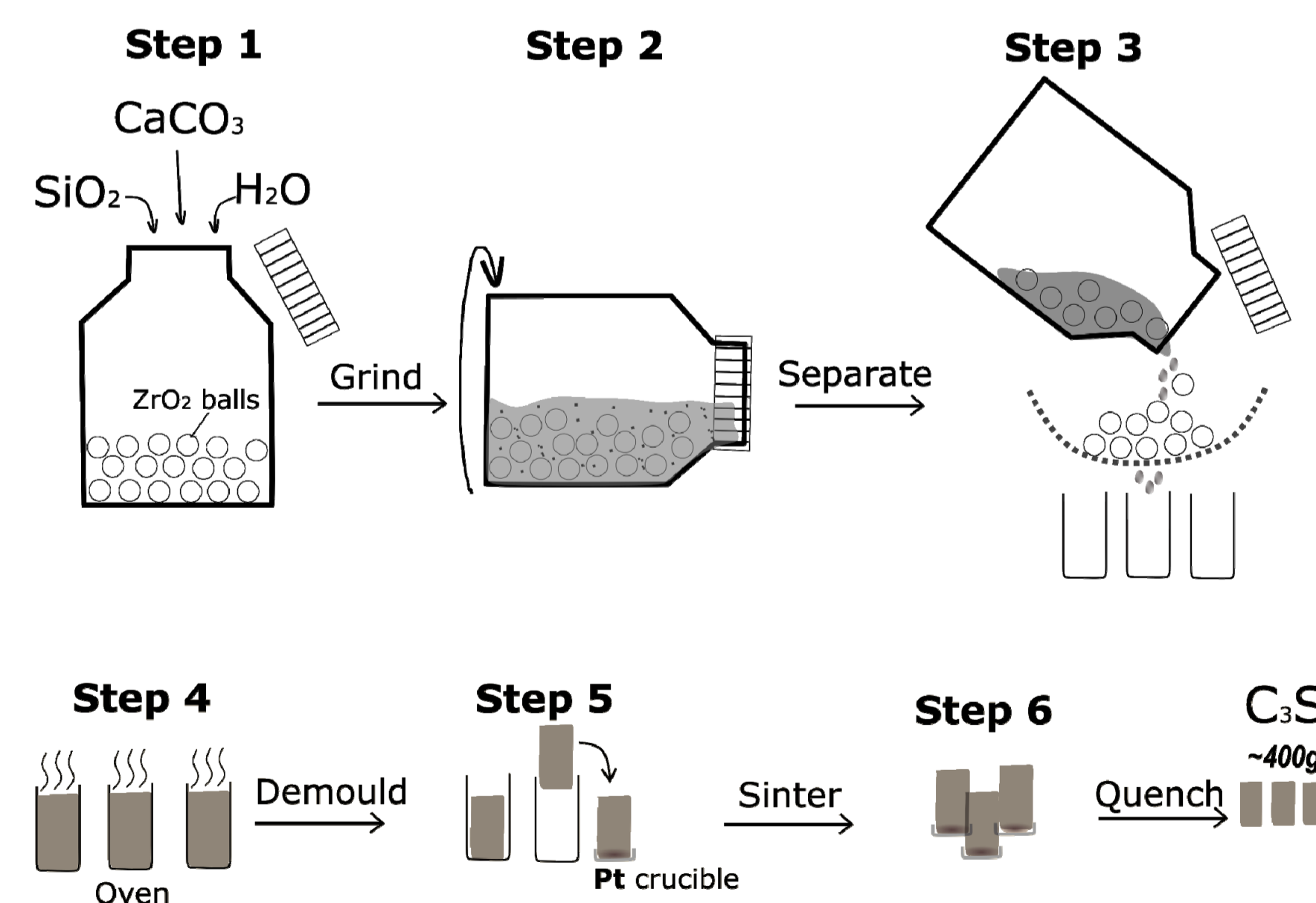


What is it used for?

- C_3S , C_2S , C_3A and C_4AF synthesis
- Solid reaction kinetics
- Glass synthesis

Synthesize C_3S on the kilogram scale*

- Use cast green cylinders - less labor consuming and increased capacity of the Pt crucible
- Amorphous silica and reduced PSD of $CaCO_3$ improved the burnability



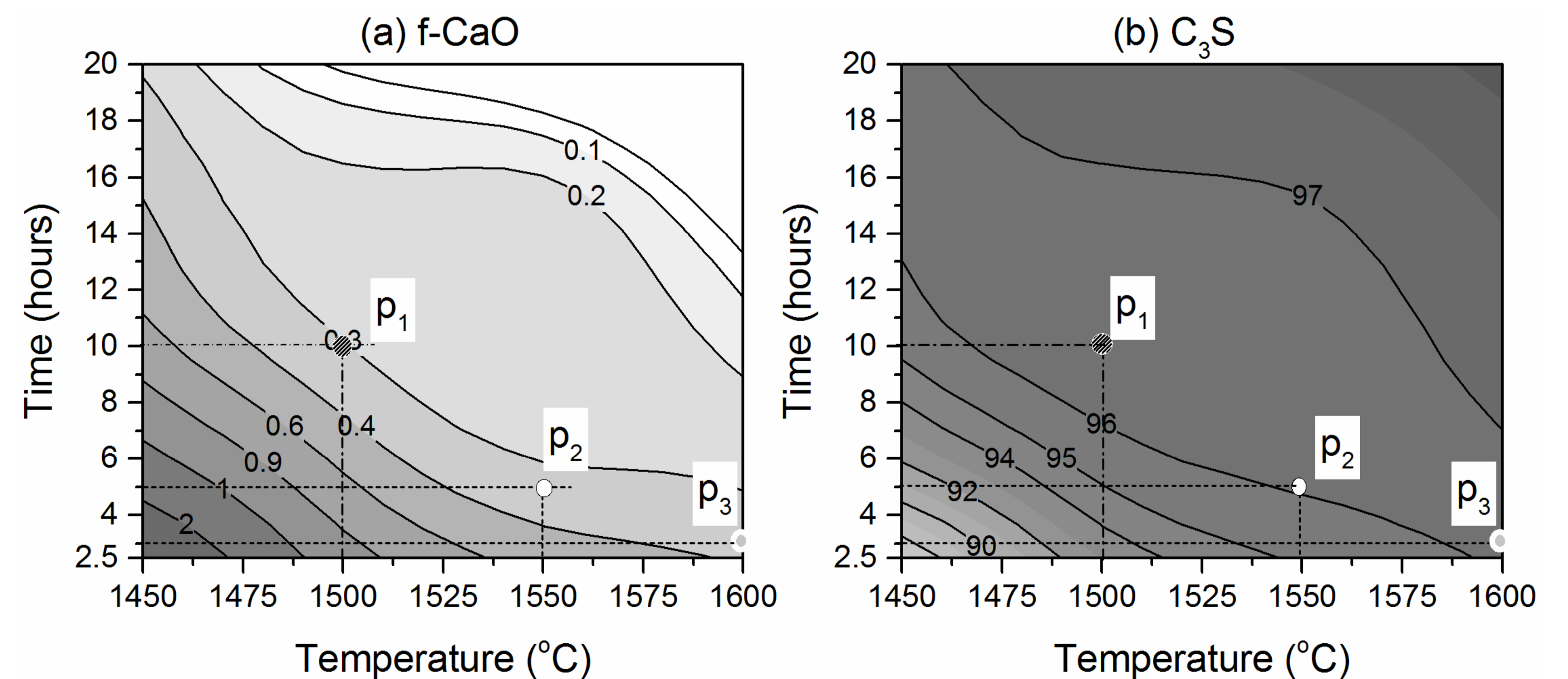
Procedure of the C_3S synthesis



Sintering using dried green cylinder in the furnace



Sample during quenching, a mock sampling at room temperature.



Contour plot of (a) $f-CaO$ and (b) C_3S content (%). A sample with ~96 wt% C_3S and ~0.3 wt% $f-CaO$ can be sintered at point P_1 , P_2 or P_3 depends on the temperature the furnace can reach