Effect of seawater, aluminate cement and alumina-rich spinel on pelletised CaO-based sorbents for calcium looping

Supporting Information

Lorena Morona^{a, b}, María Erans^{a,b}, Dawid P. Hanak^a*

^aEnergy and Power, School of Water, Energy and Environment, Cranfield University, Bedford, Bedfordshire, MK43 OAL, United Kingdom.

> ^bFaculty of Engineering, University of Nottingham, Nottingham, NG7 2RD, United Kingdom

 $Corresponding\ author:\ *Dawid\ P.\ Hanak,\ d.p.hanak@cranfield.ac.uk$

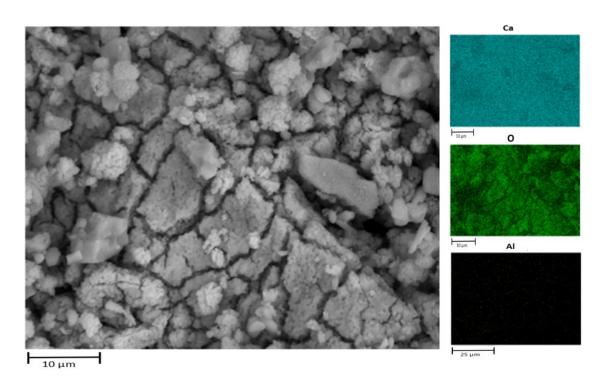


Figure SI-1: Limestone, realistic conditions after 20 cycles

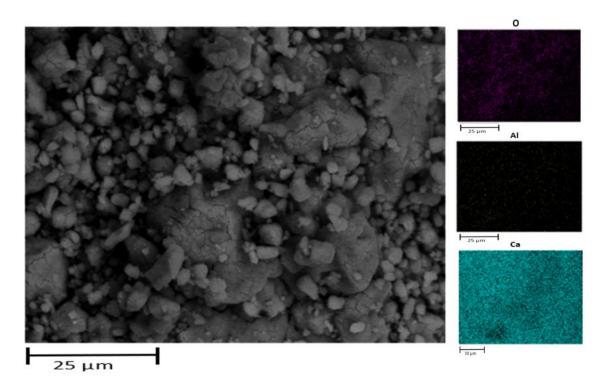


Figure SI-2: Limestone, realistic conditions first calcination

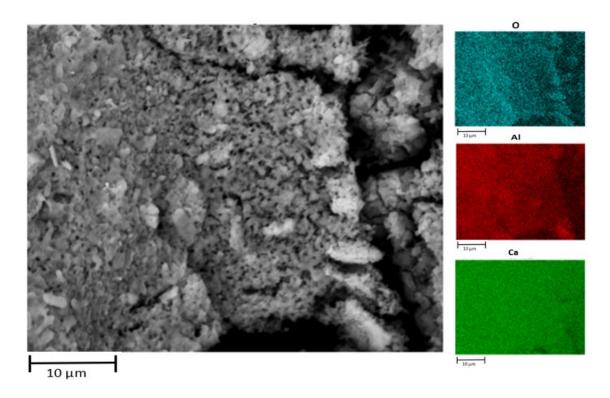


Figure SI-3: LCO, realistic conditions after 20 cycles

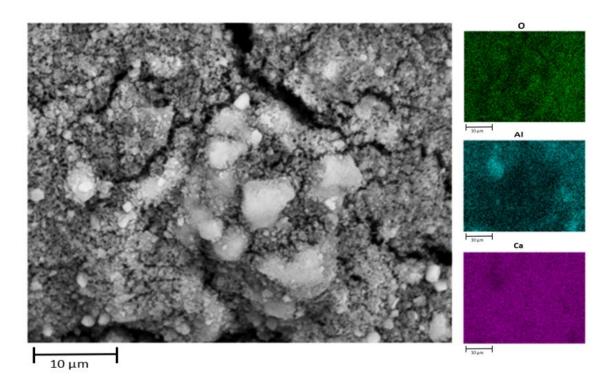


Figure SI-4: LCO, realistic conditions first calcination

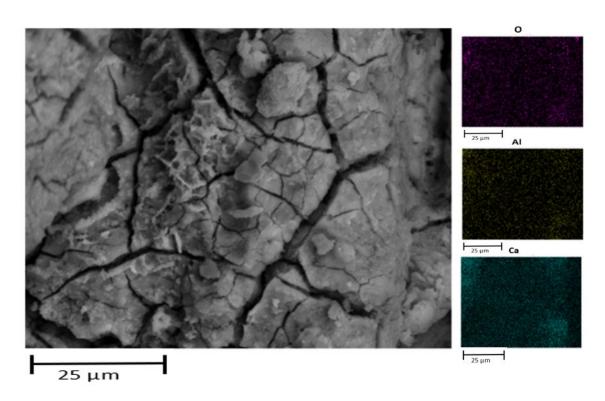


Figure SI-5: LCO, mild conditions after 20 cycles

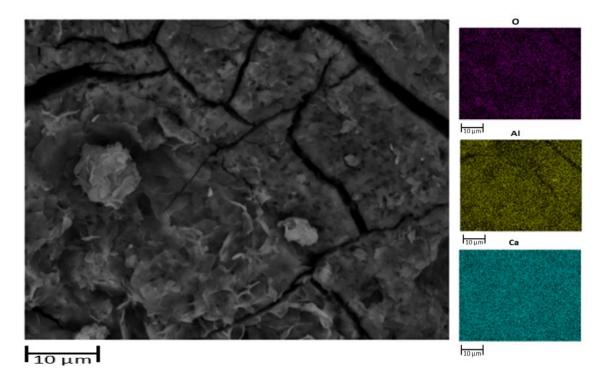


Figure SI-6: LCO, mild conditions first calcination

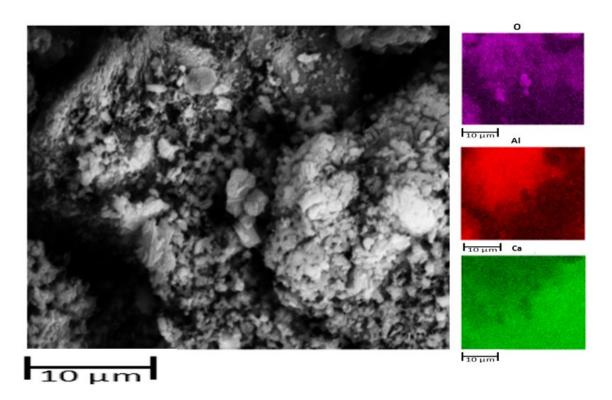


Figure SI-7: LCO*, realistic conditions after 20 cycles

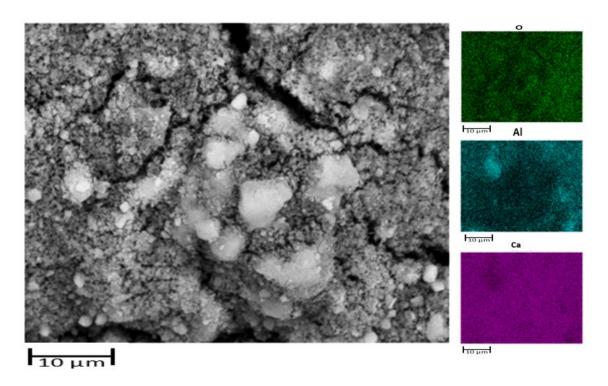


Figure SI-8: LCO*, realistic conditions first calcination

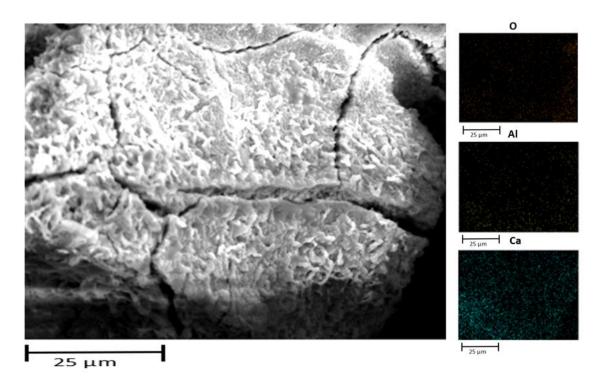


Figure SI-9: LCO*, mild conditions after 20 cycles

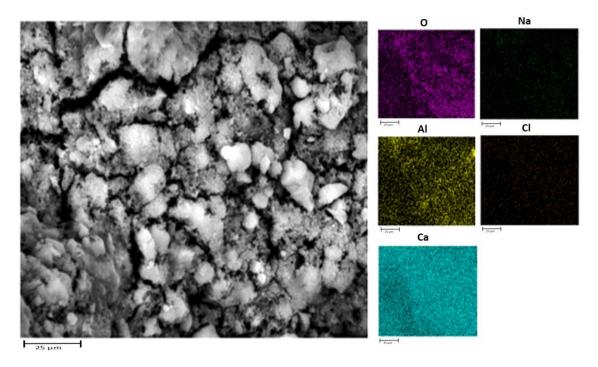


Figure SI-10: LCO*, mild conditions first calcination

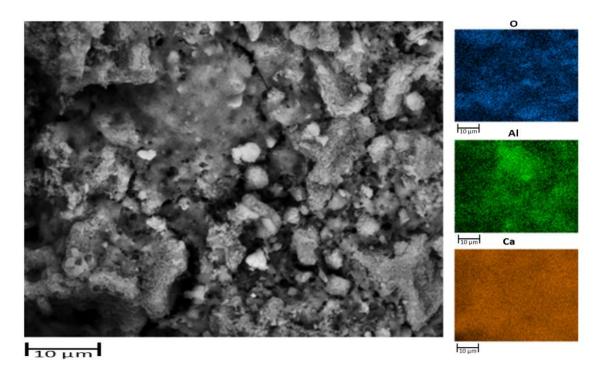


Figure SI-11: LC1, realistic conditions after 20 cycles

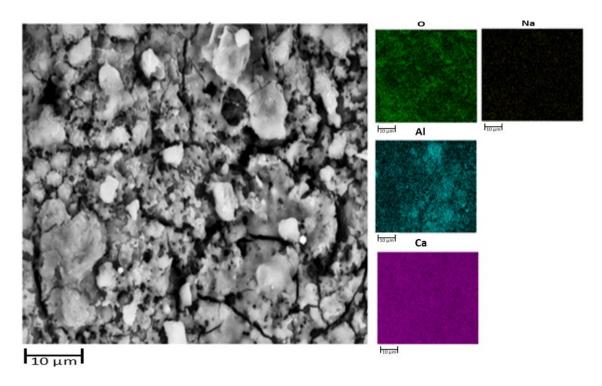


Figure SI-12: LC1, realistic conditions first calcination

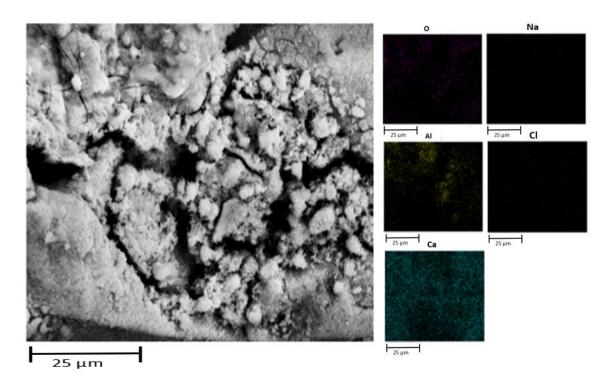


Figure SI-13: LC1, mild conditions after 20 cycles

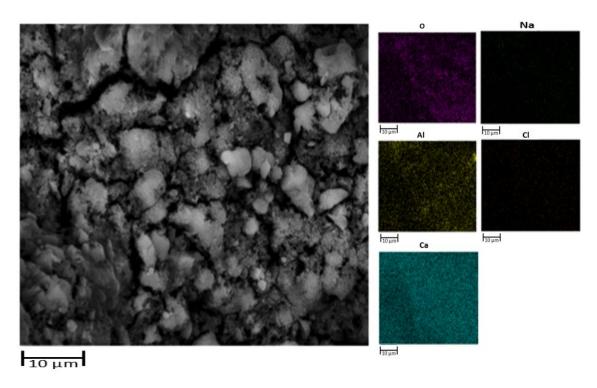


Figure SI-14: LC1, mild conditions first calcination

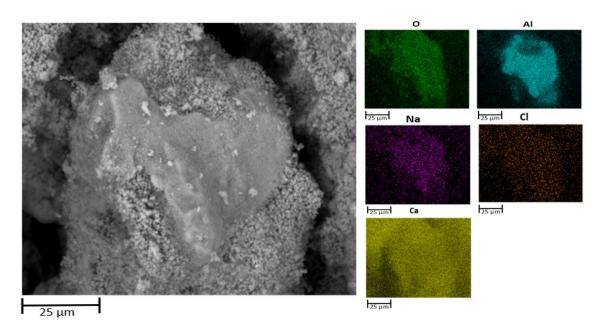


Figure SI-15: LC10, realistic conditions after 20 cycles

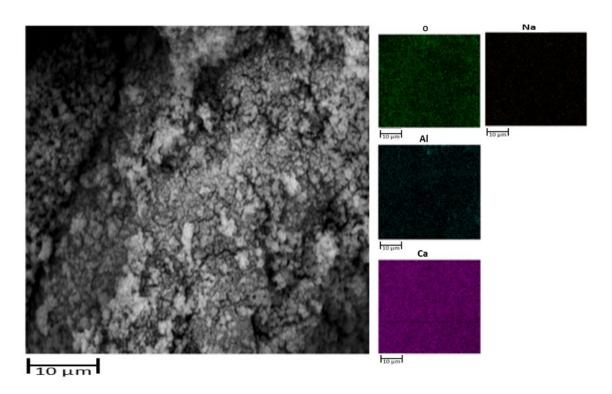


Figure SI-16: LC10, realistic conditions first calcination

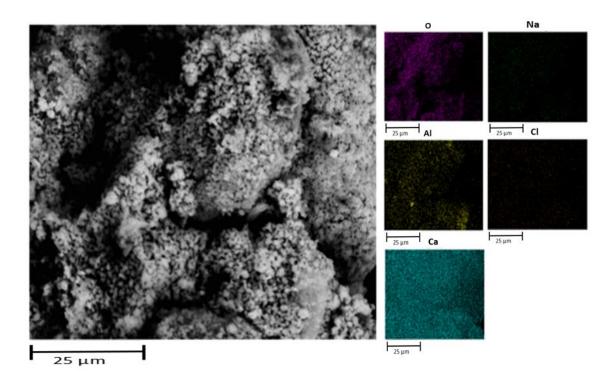


Figure SI-17: LC10, mild conditions after 20 cycles

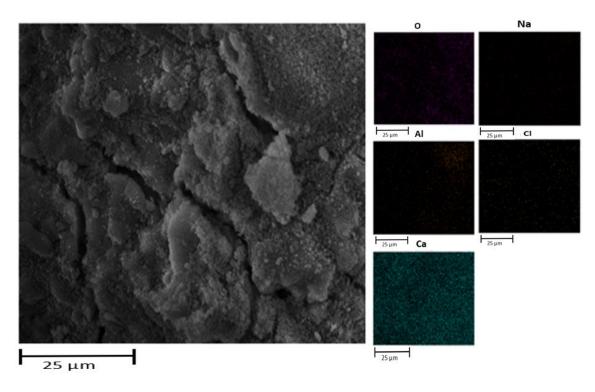


Figure SI-18: LC10, mild conditions first calcination

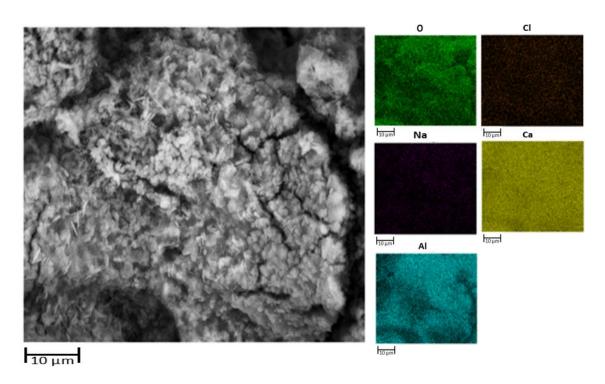


Figure SI-19: LC25, realistic conditions after 20 cycles

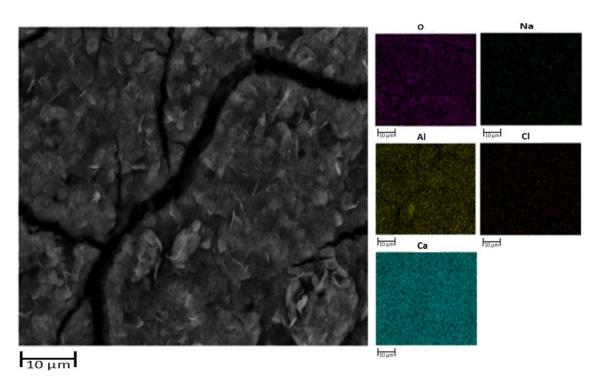


Figure SI-20: LC25, realistic conditions first calcination

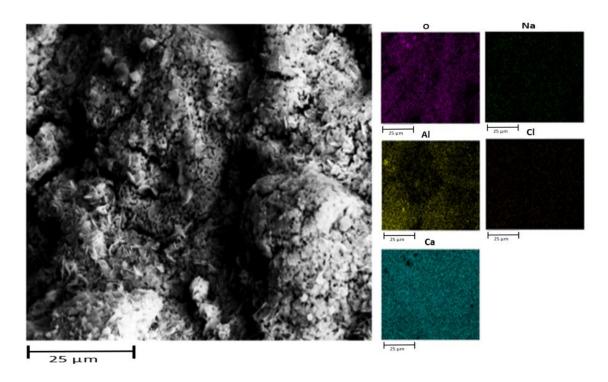


Figure SI-21: LC25, mild conditions after 20 cycles

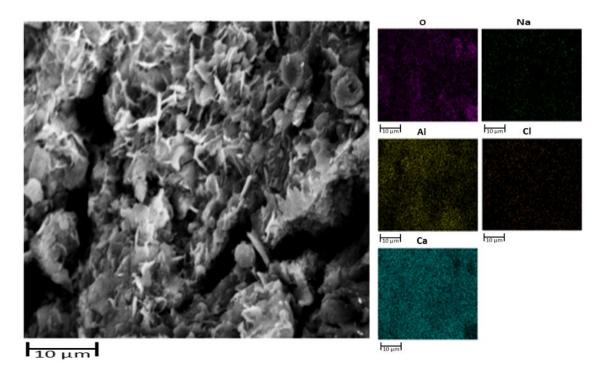


Figure SI-22: LC25, mild conditions first calcination

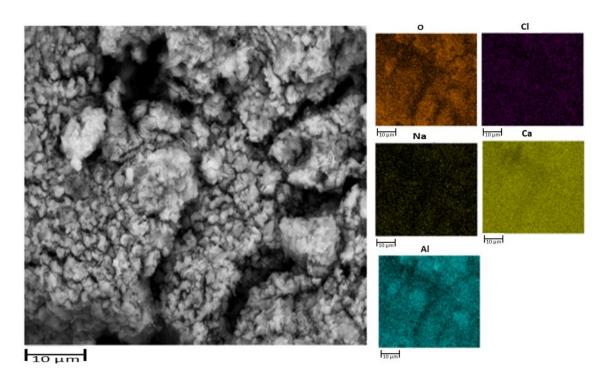


Figure SI-23: LC50, realistic conditions after 20 cycles

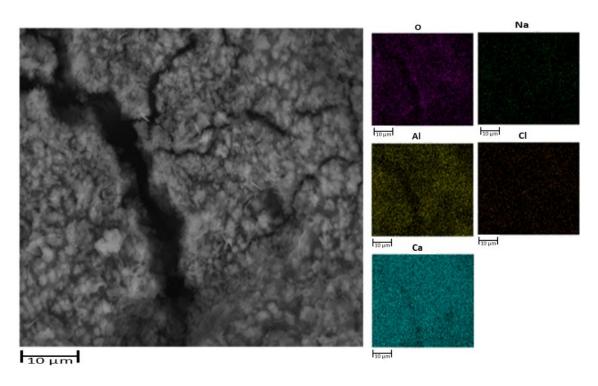


Figure SI-24: LC50, realistic conditions first calcination

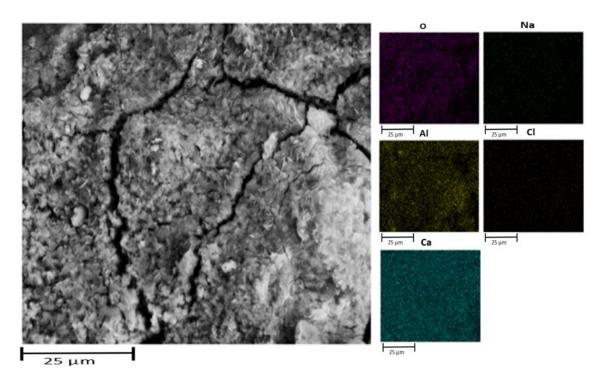


Figure B-25: LC50, mild conditions after 20 cycles

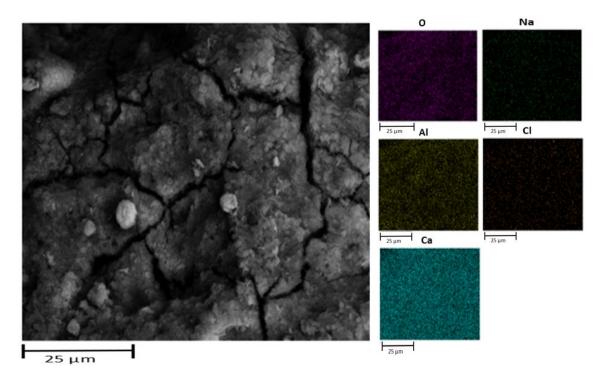


Figure SI-26: LC50, mild conditions first calcination

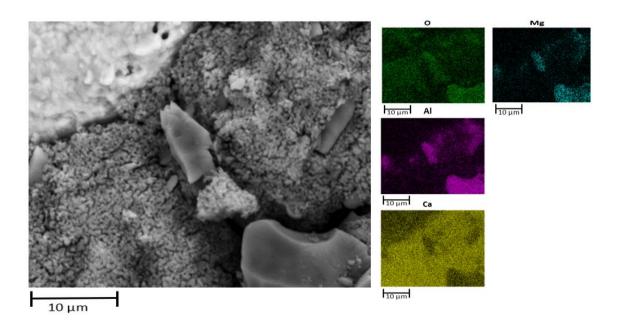


Figure SI-27: LA, realistic conditions after 20 cycles

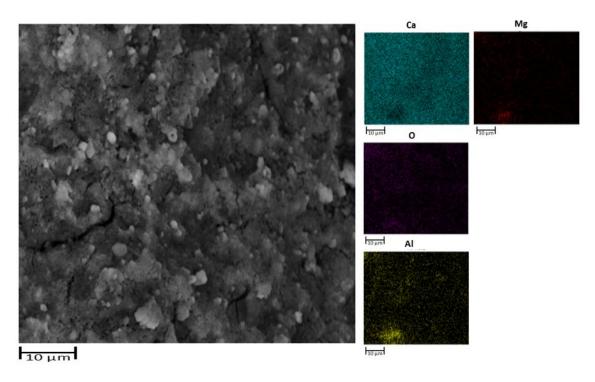


Figure SI-28: LA, realistic conditions first calcination

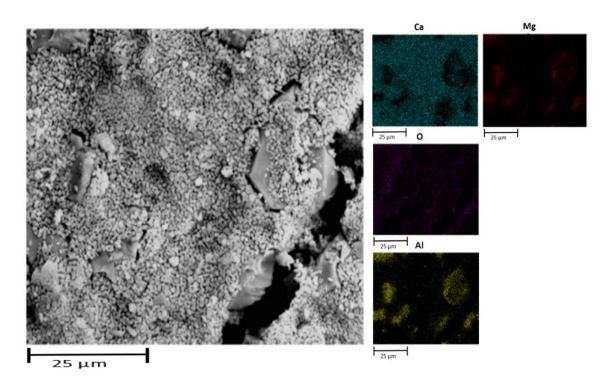


Figure SI-29: LA, mild conditions after 20 cycles

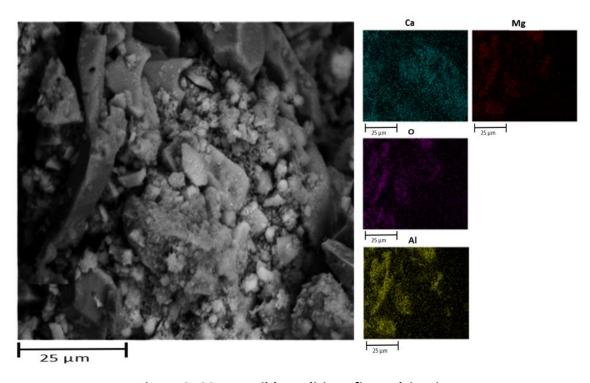


Figure SI-30: LA, mild conditions first calcination