Electronic Supplementary Material (ESI) for Nanoscale.

Feasibility of switchable dual function materials as a flexible technology for CO_2 capture and utilisation and evidence of passive direct air capture

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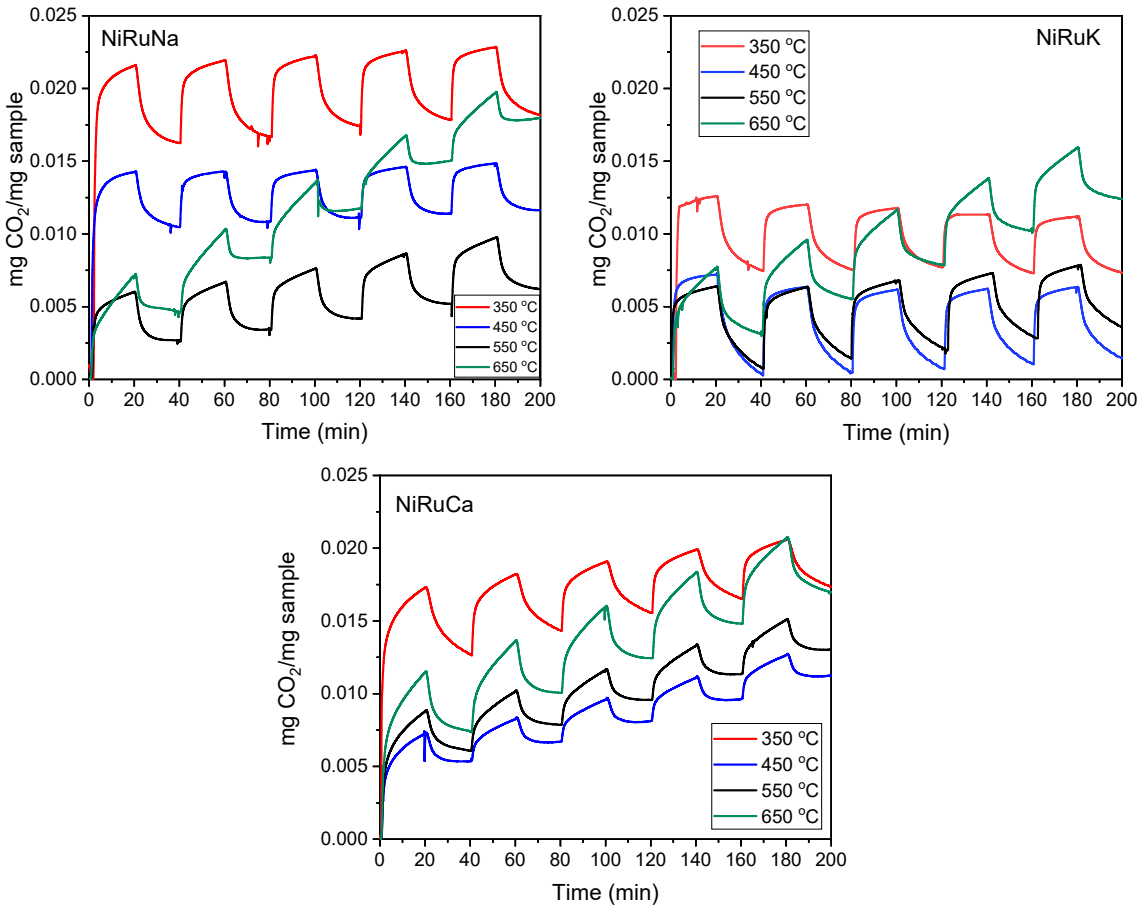

Figure S1 TGA adsorption-desorption results at different temperatures for NiRuNa, NiRuK and NiRuCa

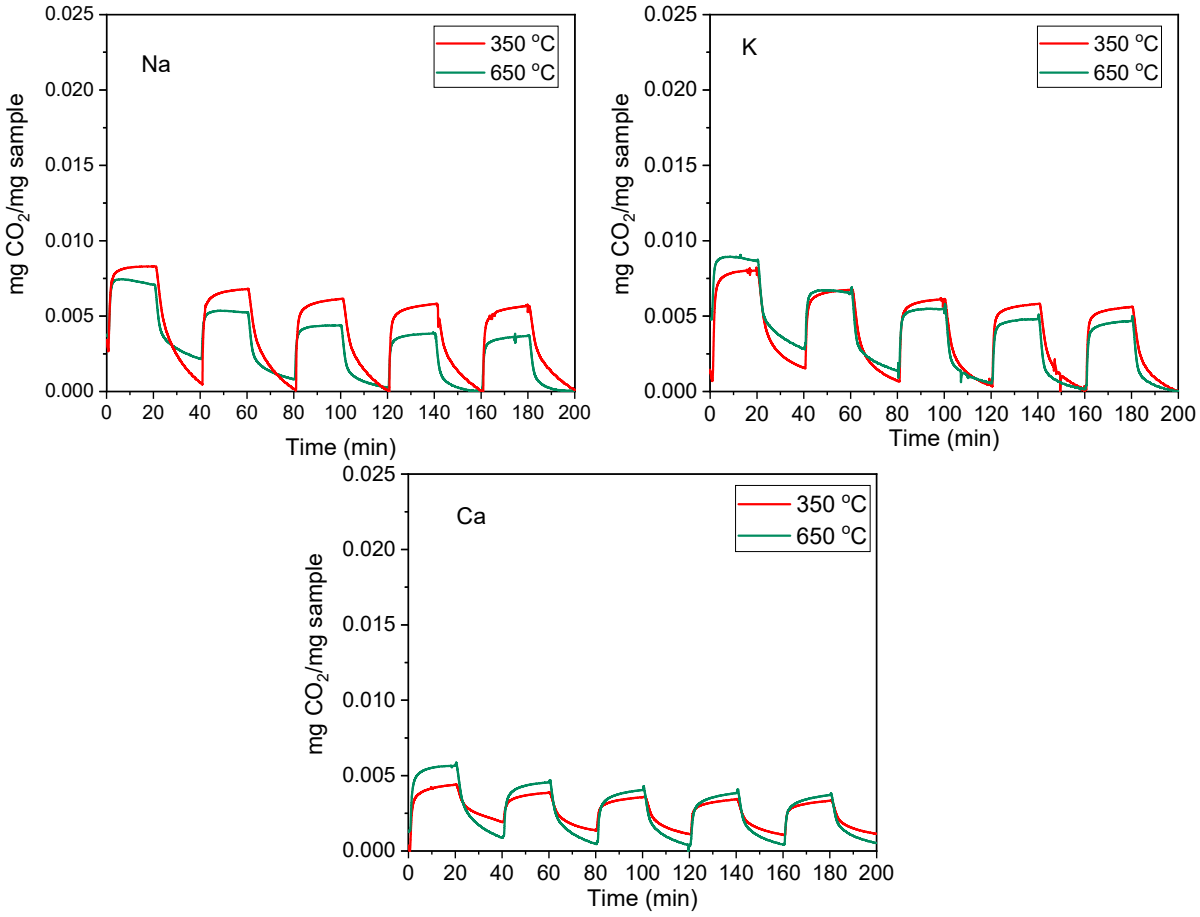

Figure S2 TGA adsorption-desorption results at different temperatures for Na, K and Ca

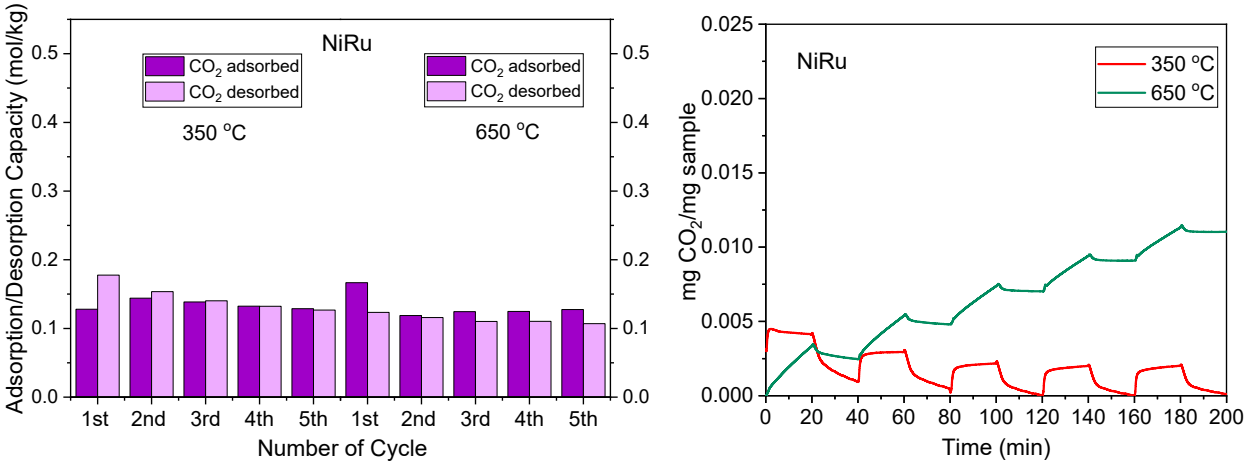

Figure S3 TGA adsorption-desorption results at different temperatures for NiRu

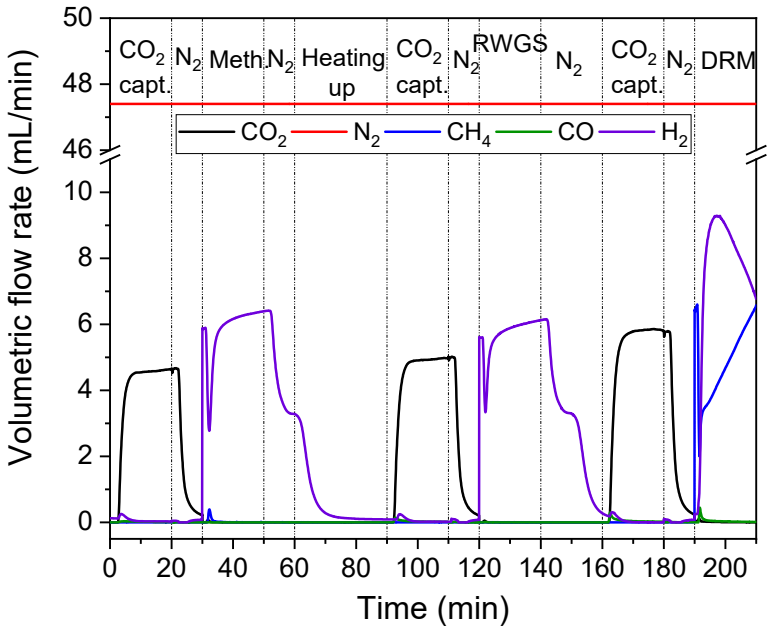

Figure S4 CO_2 capture and CO_2 methanation, followed by the RWGS and DRM for NiRuNa

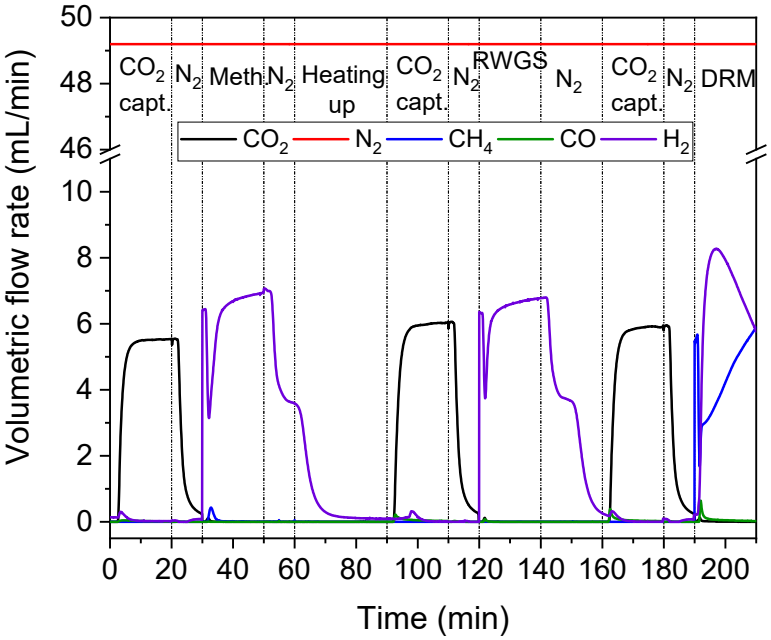

Figure S5 CO_2 capture and CO_2 methanation, followed by the RWGS and DRM for NiRuK

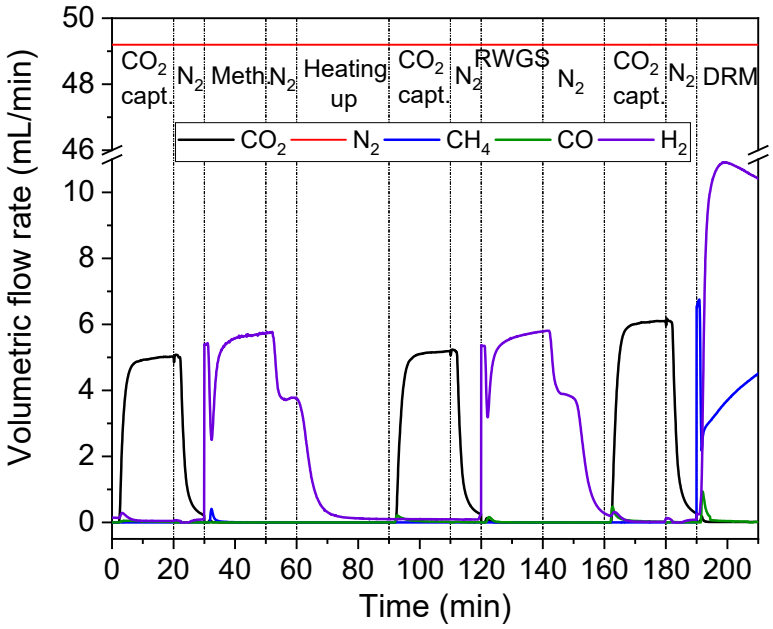

Figure S6 CO_2 capture and CO_2 methanation, followed by the RWGS and DRM for NiRuCa

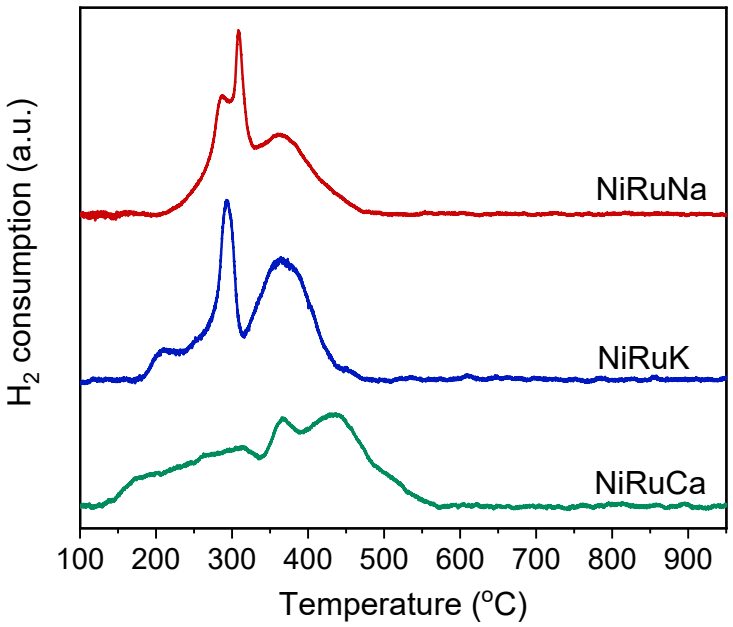

Figure S7 H_2-TPR profiles of NiRuNa, NiRuK and NiRuCa

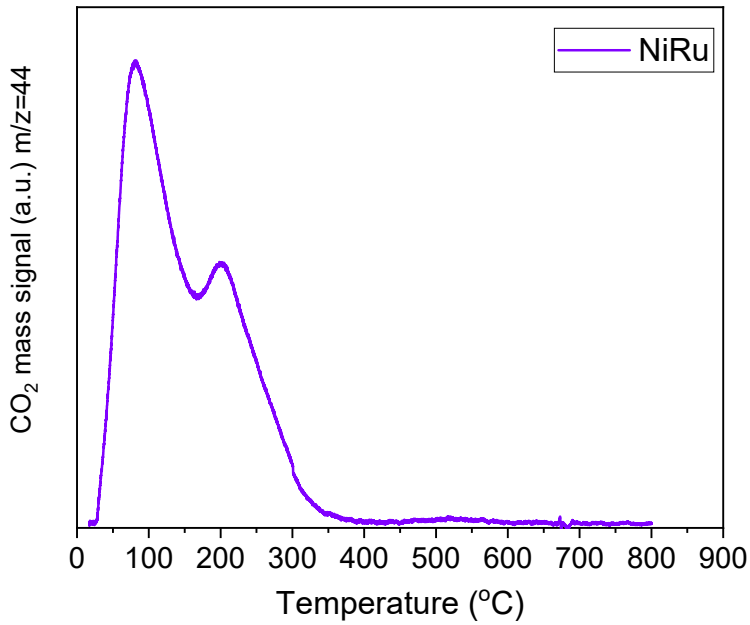

Figure S8 CO_2-TPD profile of NiRu

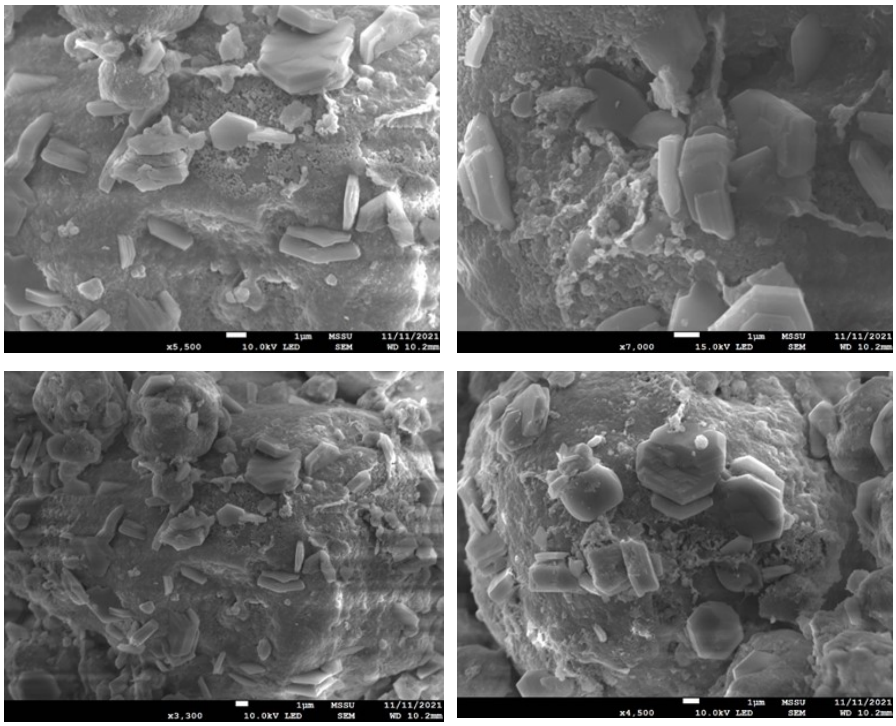

Figure S9 SEM images of fresh NiRuNa

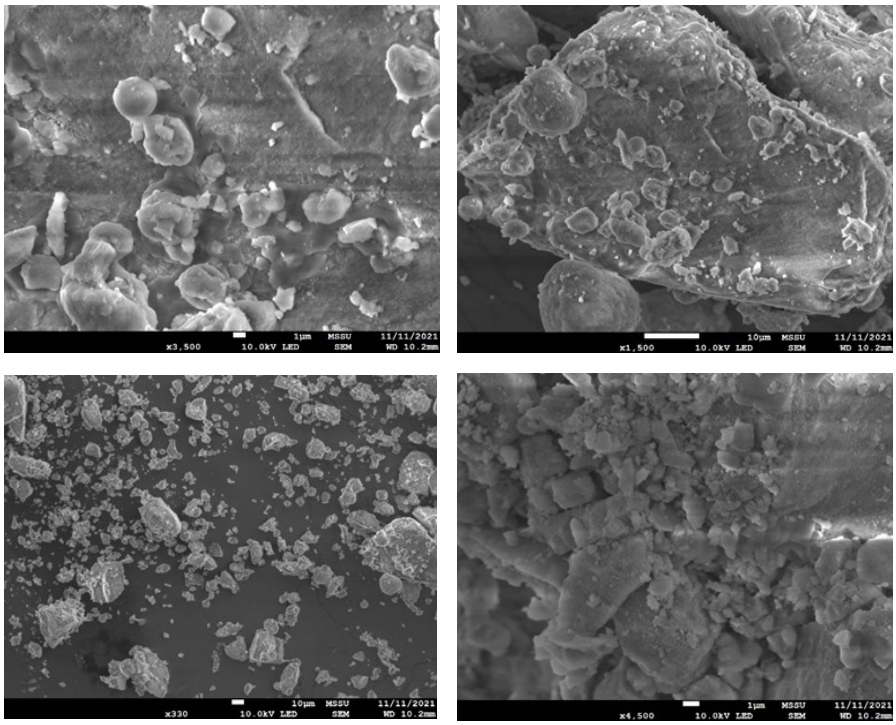

Figure S10 SEM images of fresh NiRuK

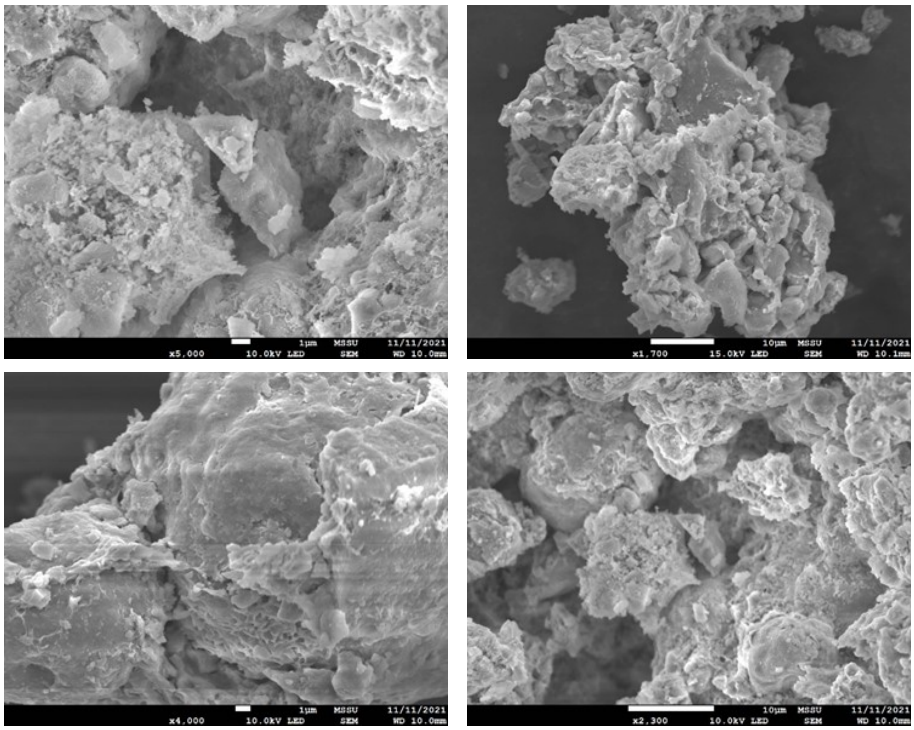

Figure S11 SEM images of fresh NiRuCa

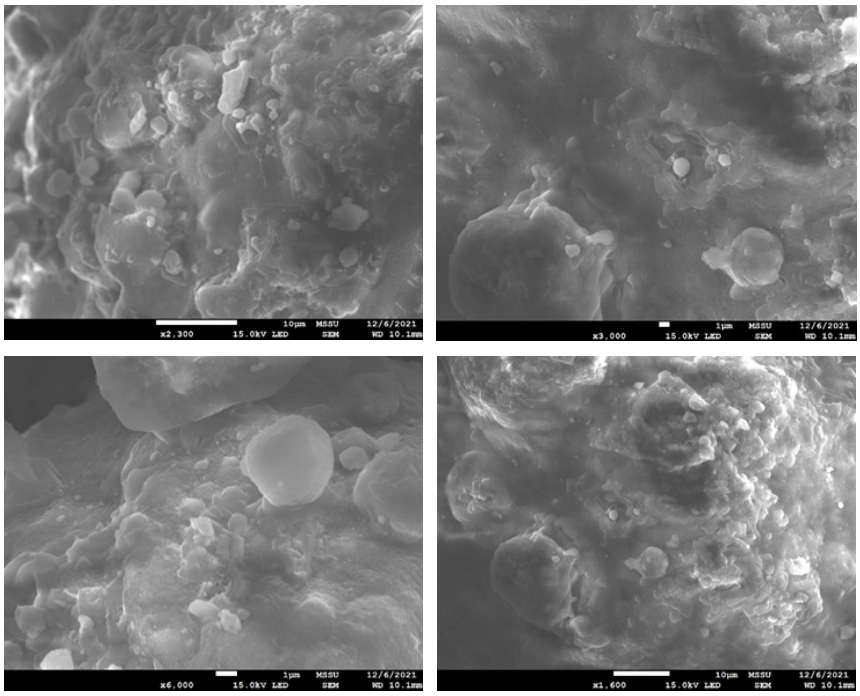

Figure S12 SEM images of fresh Na

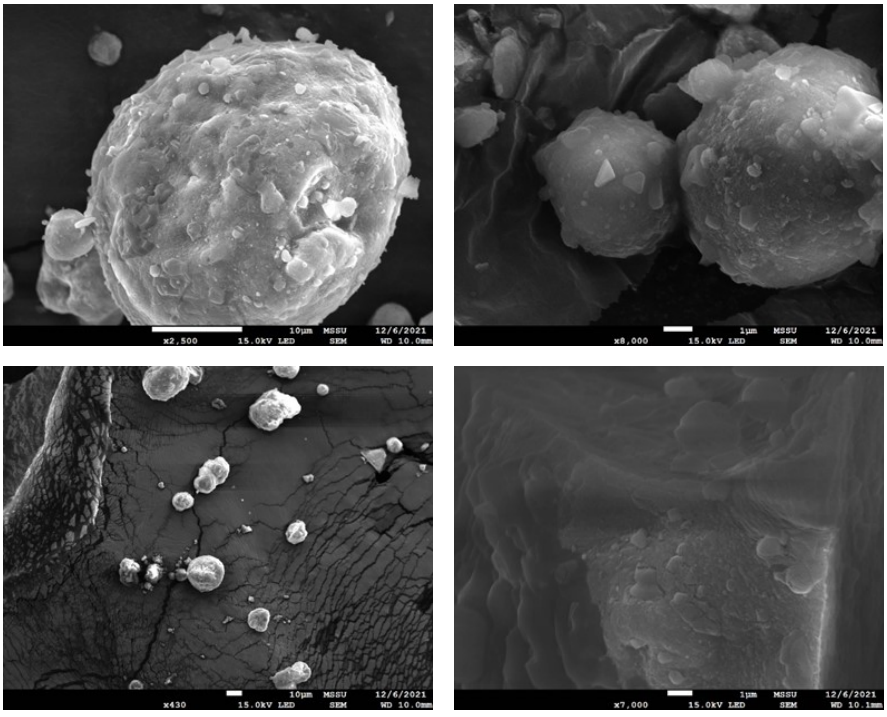

Figure S13 SEM images of fresh K

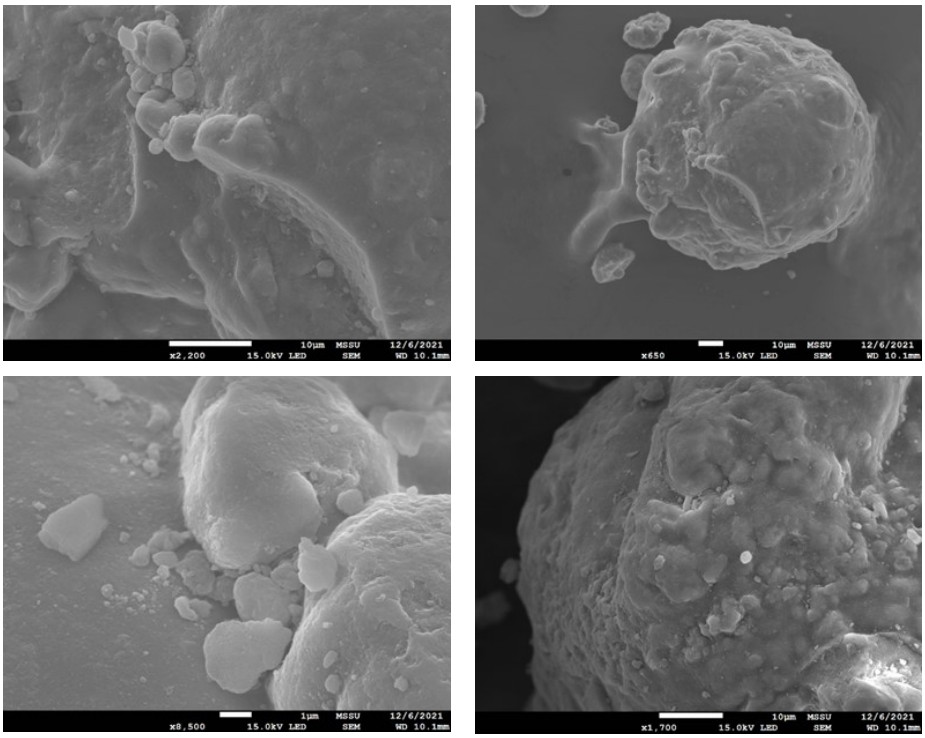

Figure S14 SEM images of fresh Ca

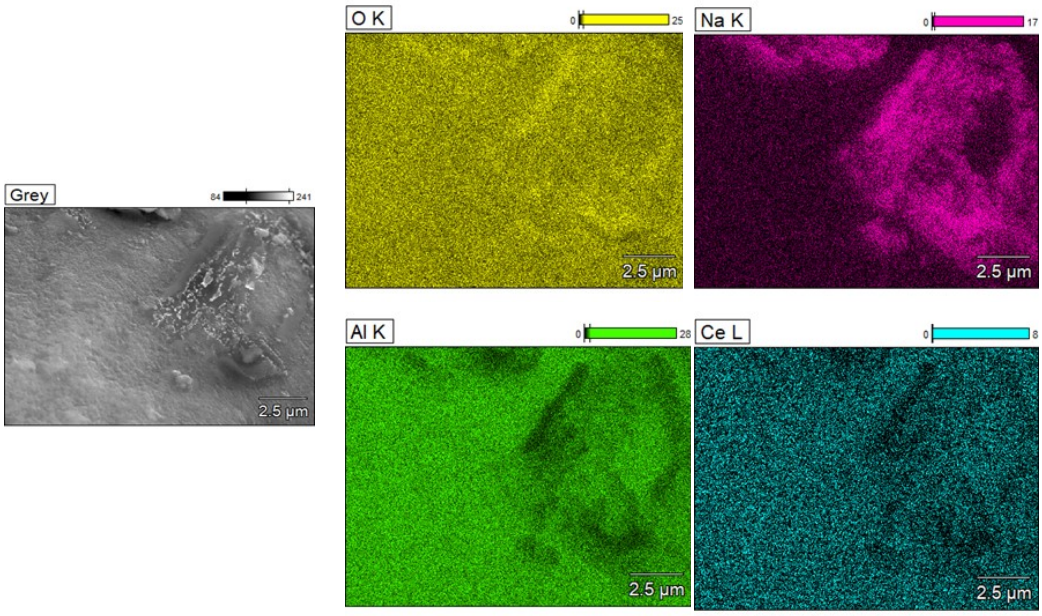

Figure S15 EDX mapping of Na

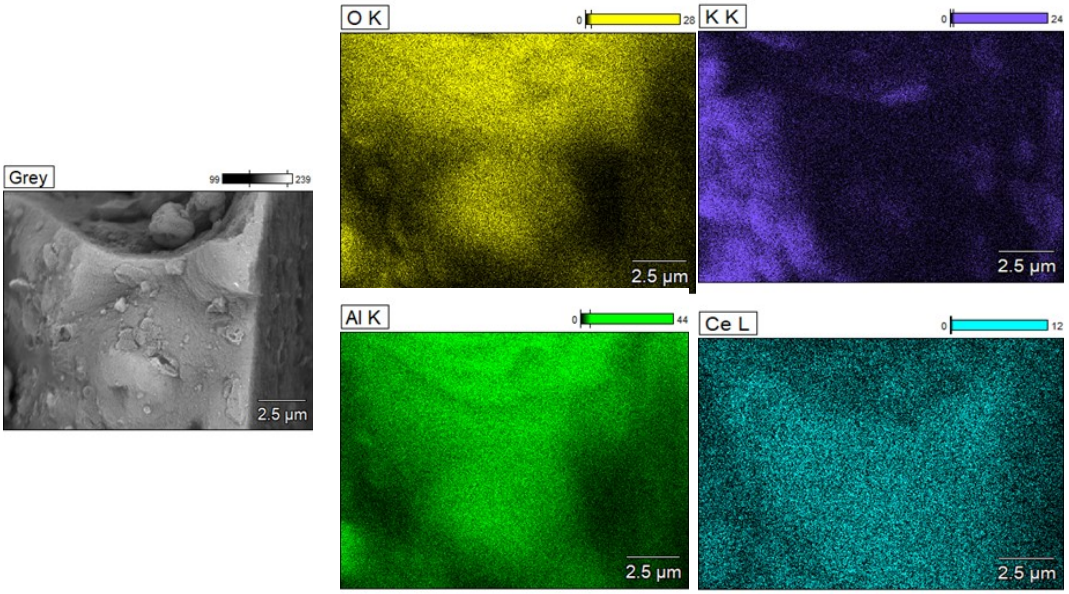

Figure S16 EDX mapping of K

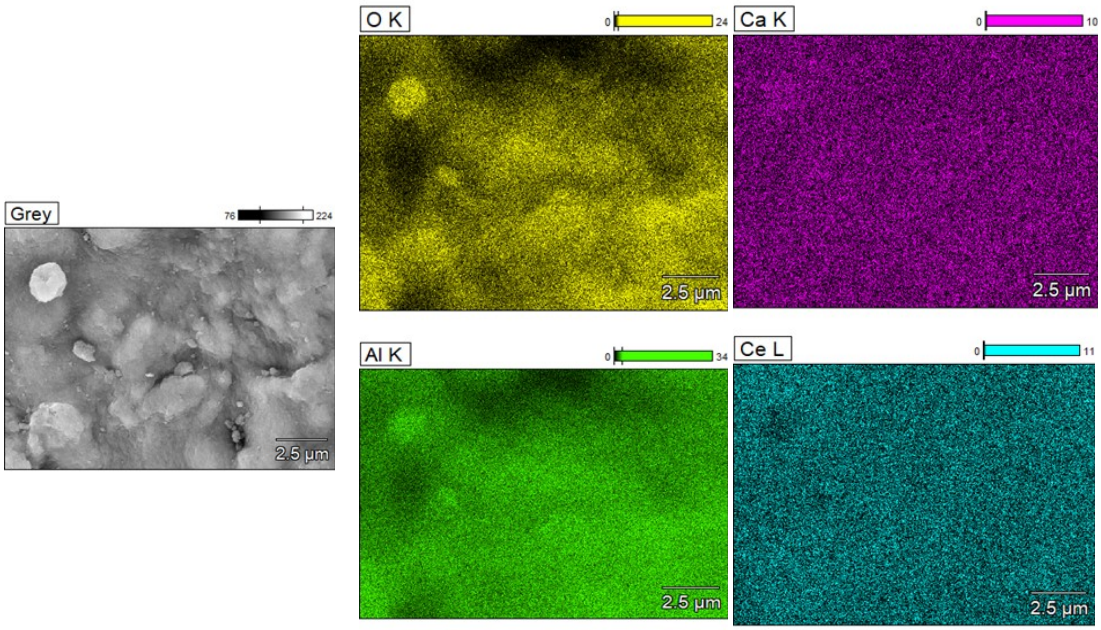

Figure S17 EDX mapping of Ca