Supplementary Information

Mineral carbonation for serpentine mitigation in nickel processing: A step towards industrial CCUS

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Methodology

X-ray powder diffraction (XRD)

Analysis was used for mineralogical examination and conducted using Rigaku MiniFlex benchtop multipurpose powder diffraction analytical instrument and the pattern spectrum was obtained at scan speed of 1.5°/min, 40 kV, 15 mA at a diffraction angle (2θ) ranging from 5°to 100° and a step size of 0.02°. Advanced PDXL powder diffraction software was used for accurate peak calculation and phase content of polycrystalline material in the diffraction pattern.

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Electronic Supplementary Information (ESI) available: [details of any supplementary information available should be included here]. See DOI: 10.1039/x0xx00000x

Results & Discussion

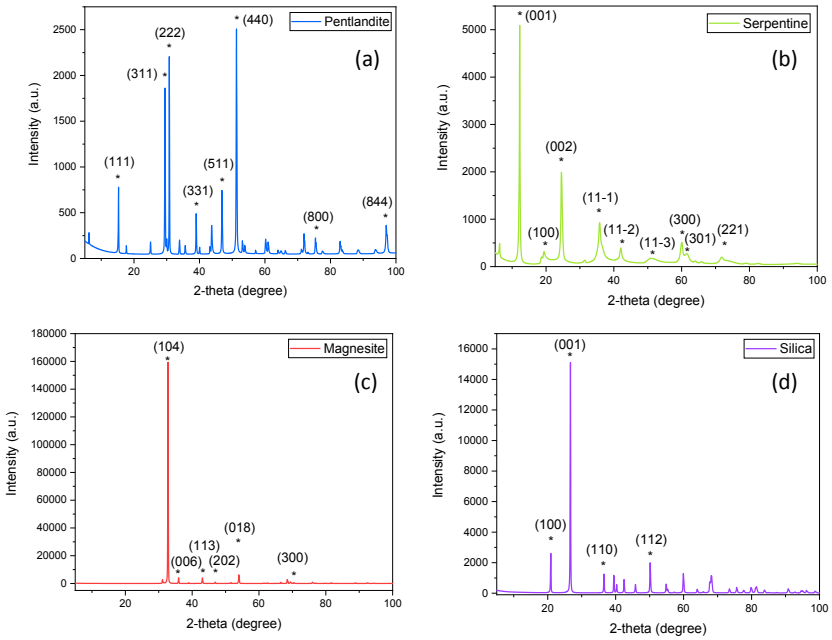
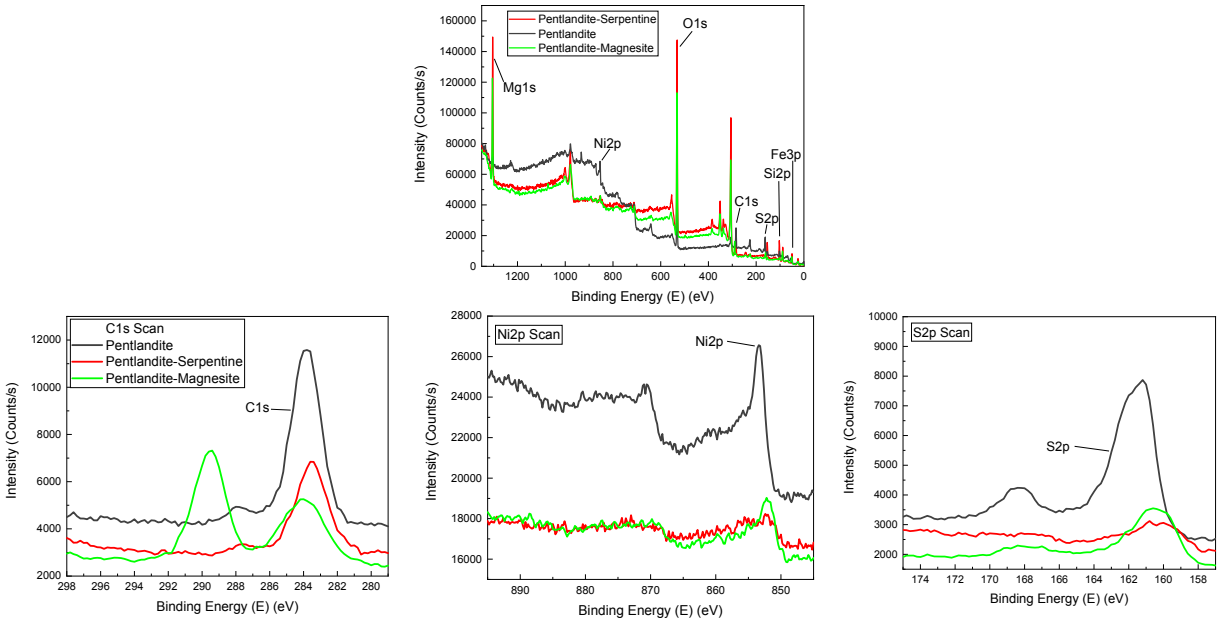


Figure S1: XRD pattern of the minerals with the characteristic peaks and phases of the minerals.



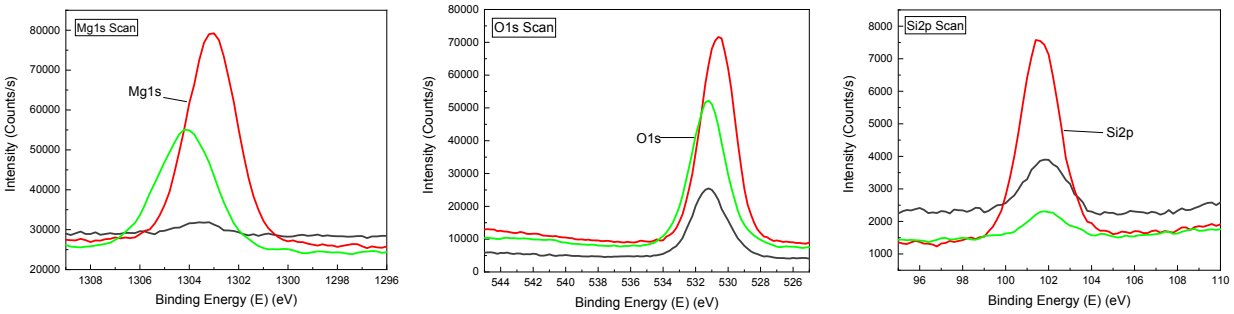


Figure S2: The survey spectra, along with higher energy resolution spectral regions (C 1s , Ni 2p, S 2p, Mg 1s, O 1s, Si 2p).