

## Supplementary Information

### Potential Slow Release Fertilizers Based on $K_2MgSiO_4$ Obtained from Serpentinite

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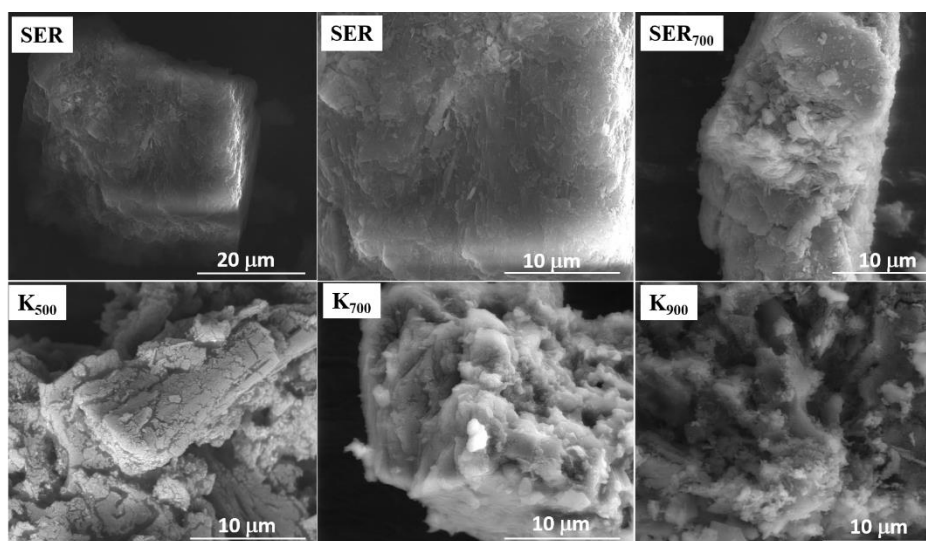
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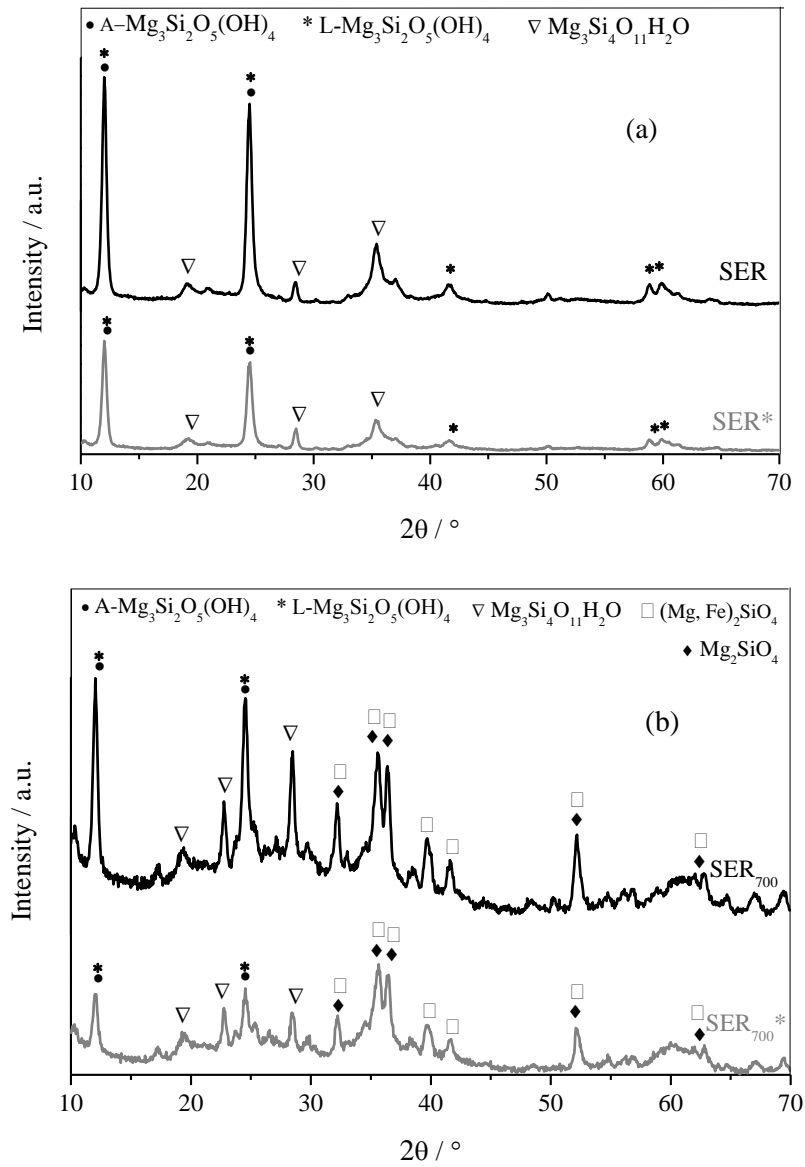
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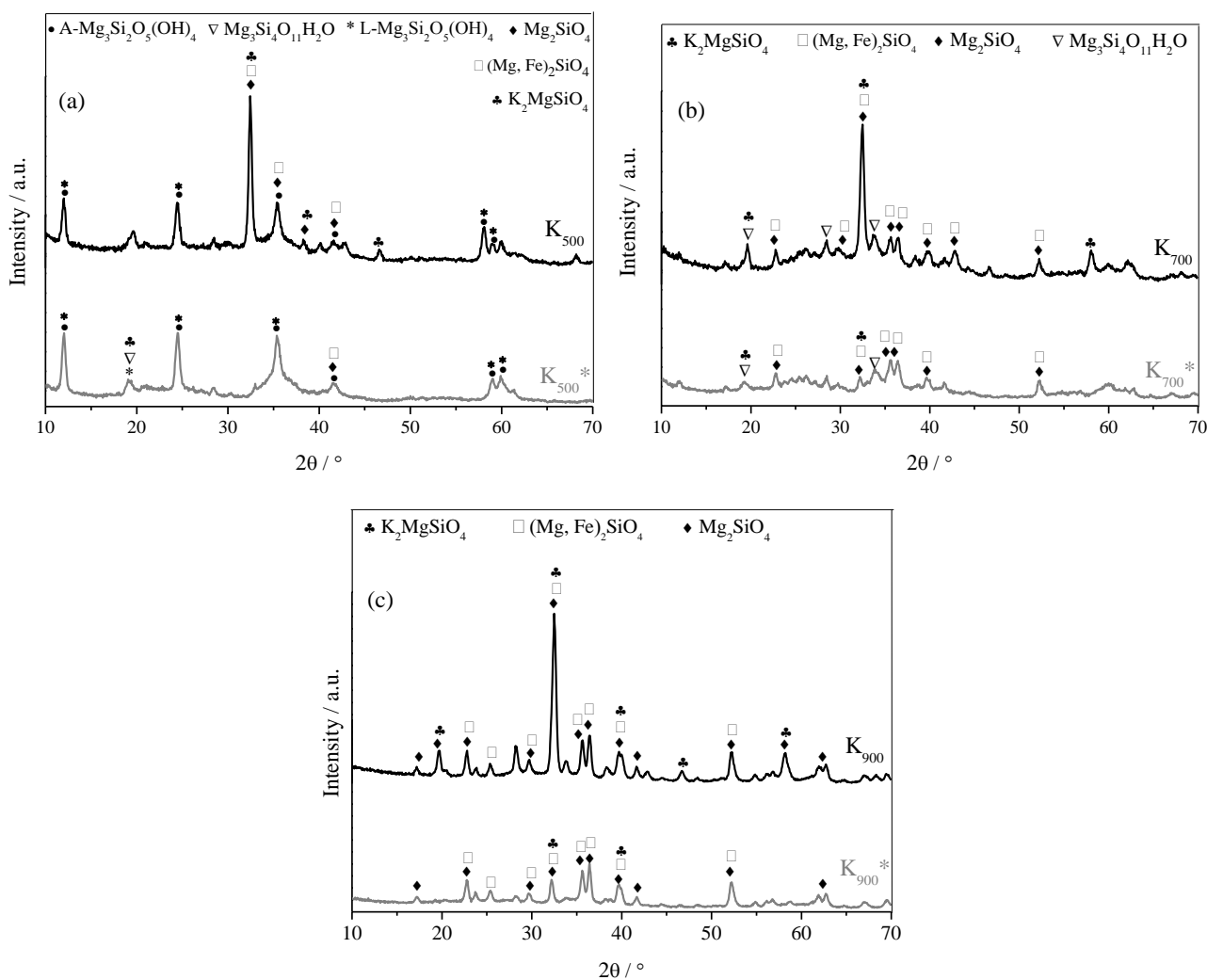


**Figure S1.** Scanning electron microscopy images of SER (serpentinite), SER<sub>700</sub> serpentinite thermally treated at 700 °C), K<sub>500</sub>, K<sub>700</sub> and K<sub>900</sub> (serpentinite impregnated with K and thermally treated at 500, 700 and 900 °C).

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**Figure S2.** X-ray diffraction pattern of (a) SER (serpentinite) (before and \*after leaching) and (b) SER<sub>700</sub> (serpentinite thermally treated at 700 °C) (before and \*after leaching).<sup>1</sup>



**Figure S3.** X-ray diffraction pattern of (a) K<sub>500</sub> (serpentinite impregnated with 20% of K and thermally treated at 500 °C, before and \*after leaching); (b) K<sub>700</sub> (serpentinite impregnated with 20% of K and thermally treated at 500 °C, before and \*after leaching); (c) K<sub>900</sub> (serpentinite impregnated with 20% of K and thermally treated at 500 °C, before and \*after leaching).<sup>1</sup>

## Reference

1. Ballotin, F. C.; Cibaka, T. E.; Ribeiro-Santos, T. A.; Santos, E. M.; Teixeira, A. P. C.; Lago, R. M.; *J. Mol. Catal. A: Chem.* **2016**, *422*, 258.

