

# Accumulation and Release of Cadmium Ions in the Lichen *Evernia prunastri* L. (Ach.) and Wood-Derived Biochar: Implication for the Use of Biochar for Environmental Biomonitoring

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The MB molecule liquid-solid equilibrium can be modelled by Equation (S1):

$$C_s = \frac{K_L S_m C_L}{1 + K_L C_L} \quad (S1)$$

where  $C_s$  is the amount of MB adsorbed on the solid surface at equilibrium (mol/g),  $C_L$  is the concentration of MB in the supernatant (mol/L),  $S_m$  is the apparent sorption capacity or adsorption maximum (mol/g) and  $K_L$  is the Langmuir coefficient (g/mol). The experimental points follow the adsorption Langmuir isotherm, where the amount of adsorbed MB converges towards an equilibrium value. Since every MB molecule covers 1,3 nm<sup>2</sup> area, the SSA can be directly obtained once the total number of MB molecules adsorbed on the sample is known.

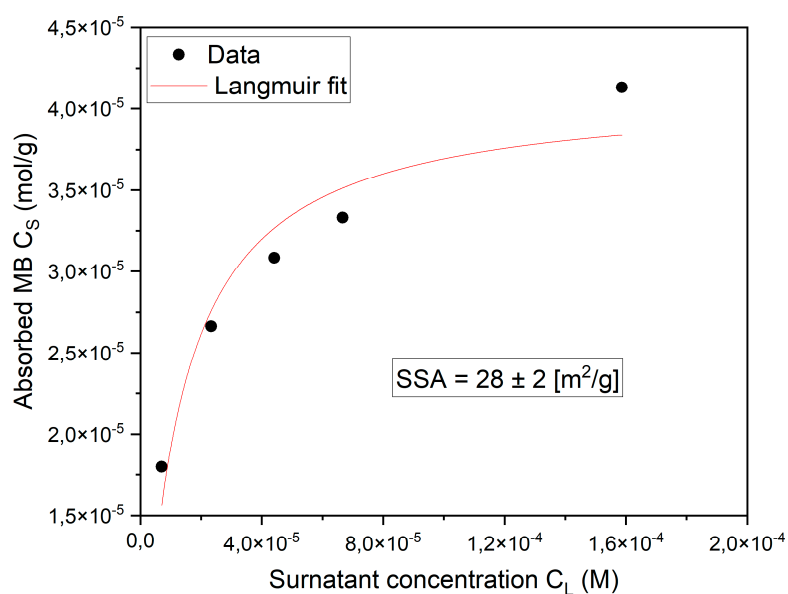


Figure S1. Langmuir isotherm fit for BC1 sample.

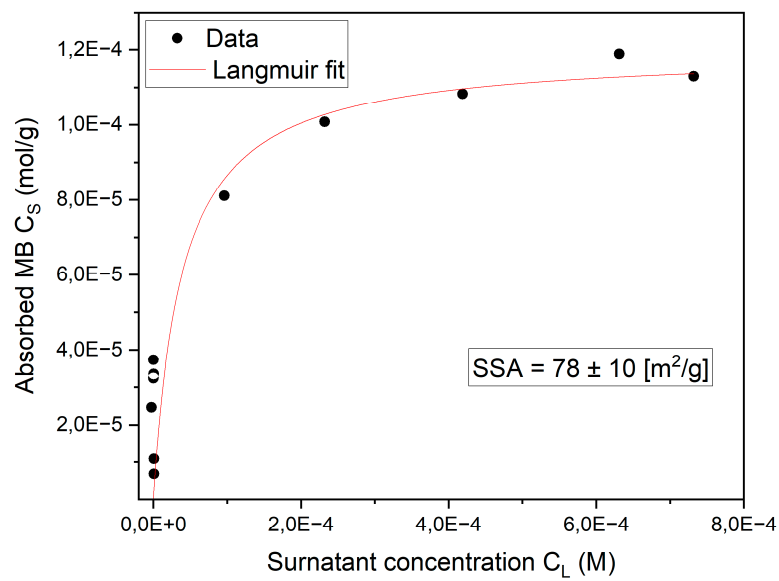


Figure S2. Langmuir isotherm fit for BC2 sample.

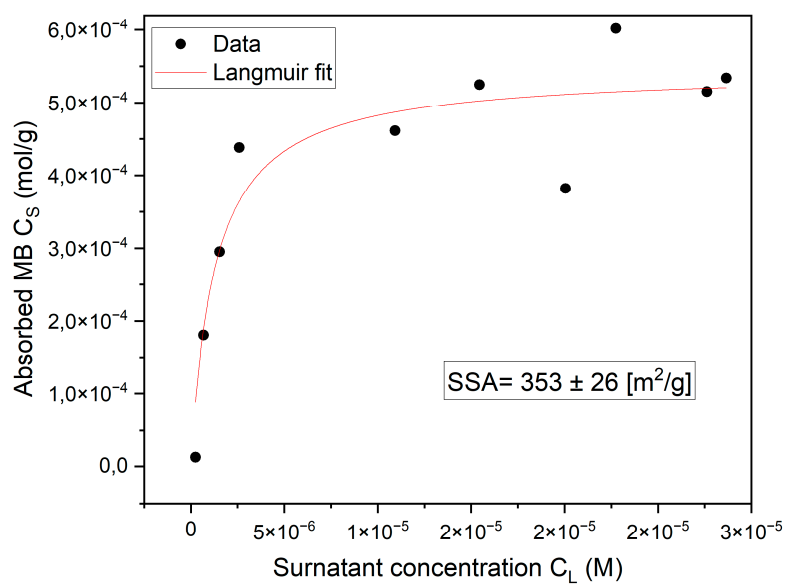


Figure S3. Langmuir isotherm fit for *Evernia prunastri* L. (Ach.) sample.