

Electronic Supplementary Information (ESI)

Phytoavailability of silver at predicted environmental concentrations: does the initial ionic or nanoparticulate form matter?"

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Figure S1. Silver K-edge XANES spectra of the PVP-AgNPs and SiO₂-AgNPs compared to a metallic silver reference compound.

Figure S2. Evolution of the zeta potential of the PVP-AgNPs and SiO₂-AgNPs in Milli-Q water as a function of pH.

Figure S3. Principal components analysis of the dataset.

Table S1. Soil Characteristics.

Table S2.

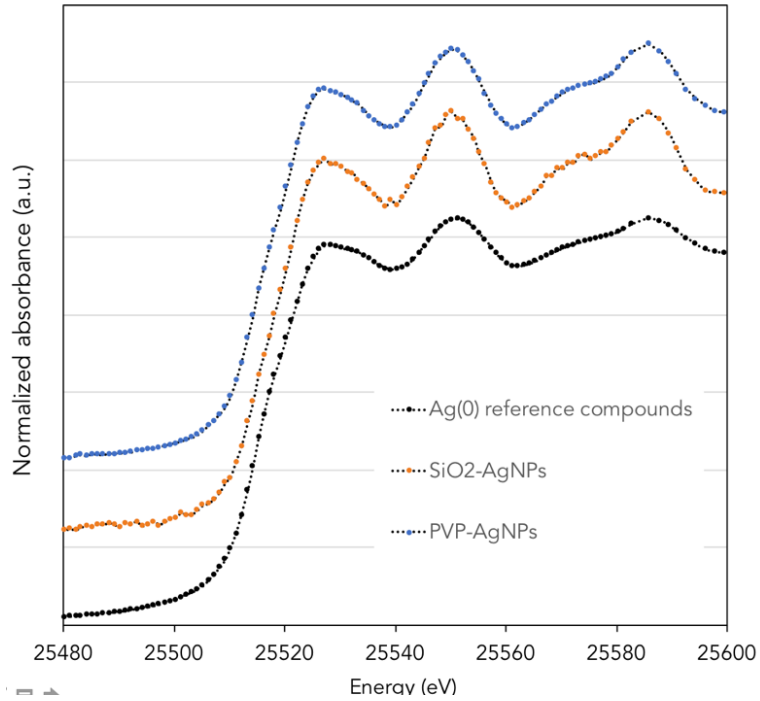


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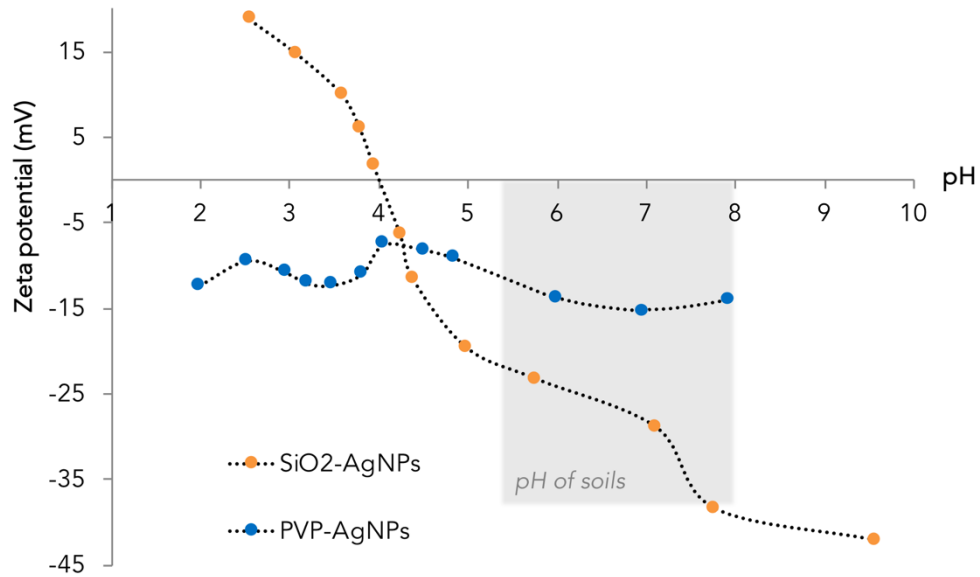


Figure S2. Evolution of the zeta potential of the PVP-AgNPs and SiO₂-AgNPs in Milli-Q water as a function of pH.

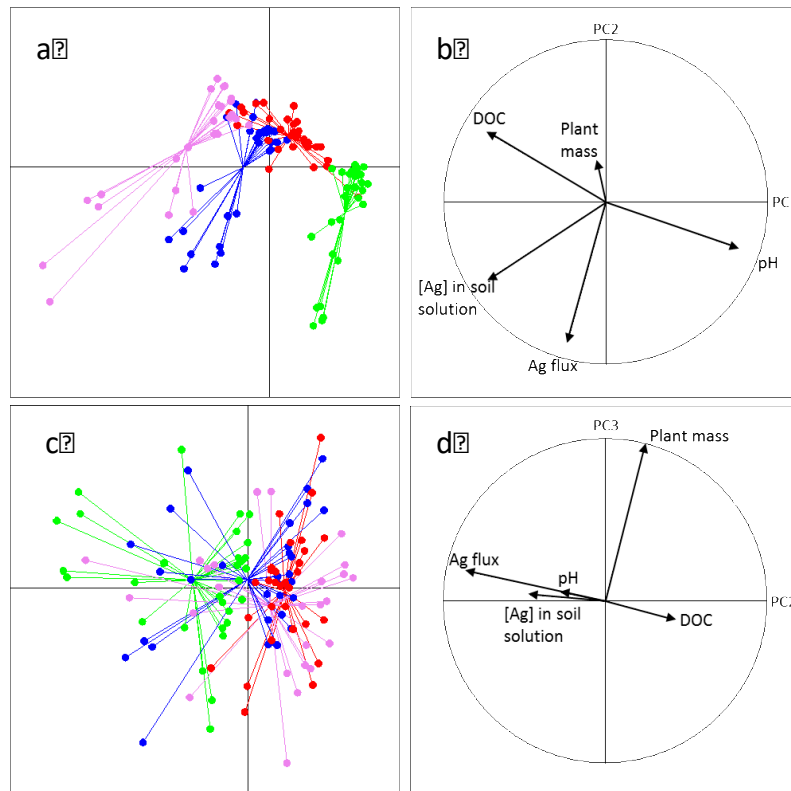


Figure S3. Principal components analysis of the dataset. On the three first principal components, PC1 explained 34.6% of the variability, PC2 25.2% and PC3 19.7%. Score plots according to the type of soil on PC1 and PC2 (1a) or PC2 and PC3 (1b). Correlation loading plots of the variables on PC1 and PC2 (1b) and PC2 and PC3 (1d). The observations corresponding to the different soils are represented by red dots for the clay loam soil, pink dots for the loam-high MO soil, blue dots for the sandy soil, and green dots for the loam-high carbonate soil.

Table S1. Soil characteristics.

| Soil name (texture) | Taxonomy (WRB) | Location | pH | Organic C (%) | Carbonate (%) | CEC (cmol.kg) | Clay (%) | Silt (%) | Sand (%) |
|-----------------------|----------------|--------------------------|-----|---------------|---------------|---------------|----------|----------|----------|
| Clay | Vertisol | Hanhofen, Germany | 7.1 | 1.64 | 1.4 | 27.2 | 40.7 | 34.5 | 24.5 |
| Loam – high OM | Luvisol | Côte Saint-André, France | 6.3 | 3.93 | <0.1 | 15.3 | 19.0 | 41.0 | 40.0 |
| Loam – high carbonate | Rendosol | Collias, France | 8.1 | 0.15 | 28.9 | 5.1 | 13.9 | 46.4 | 39.7 |
| Sandy loam | Gleysol | Siebeldingen, Germany | 5.5 | 1.77 | <0.1 | 10.1 | 8.2 | 15.3 | 76.5 |