1   Supplemental Material for

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**3**   **Water quality indicators influencing the formation and morphology of hydrostatically-**

4   **formed photogranules**

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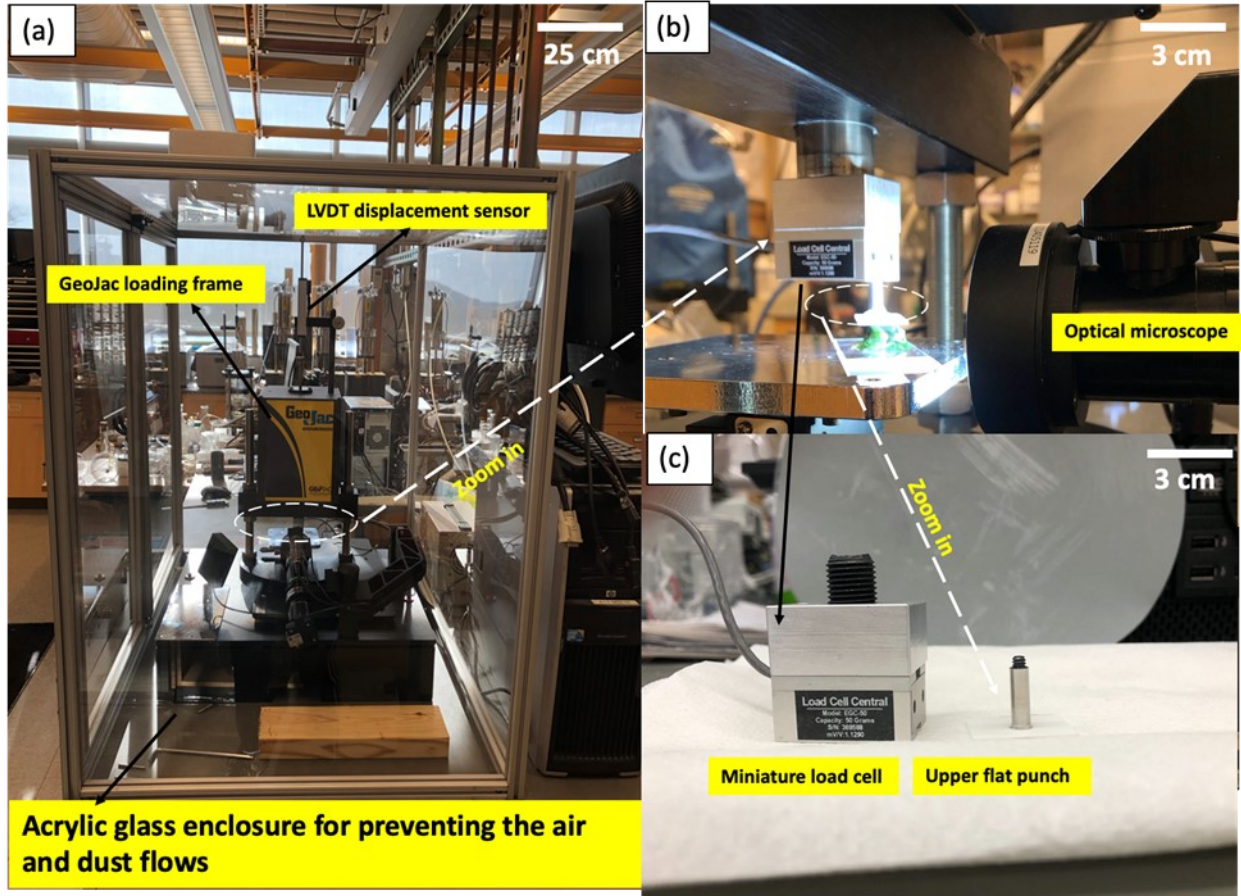
Fig. S1. Experimental set up for the compression testing of individual OPGs: (a) the GeoJac loading frame placed in the acrylic glass encolure; (b) OPG being compressed under the observation of an optical microscope; (c) close-up of miniacture loading cell and the upper flat punch that compress the individual OPGs.
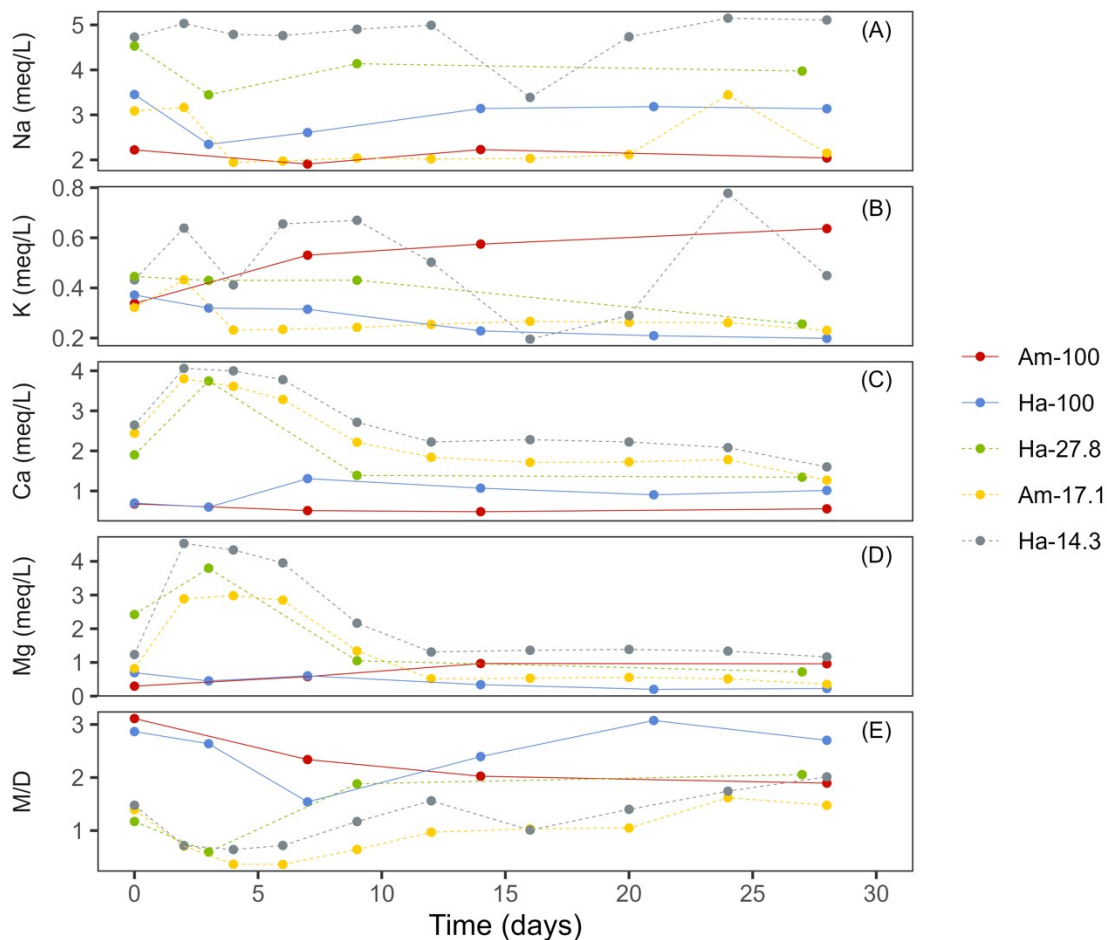
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Fig. S2. Changes in cations concentrations during the granulation process. (A) Na^+, (B) K^+, (C) Ca^{2+}, and (D) Mg^{2+}, and (E) the ratio of the monovalent to divalent cations, M/D. All concentrations as meq/L. The solid lines represent data from cultivations dominated by spherical granules, while the dashed lines represent data from cultivations dominated by disk-shaped granules.
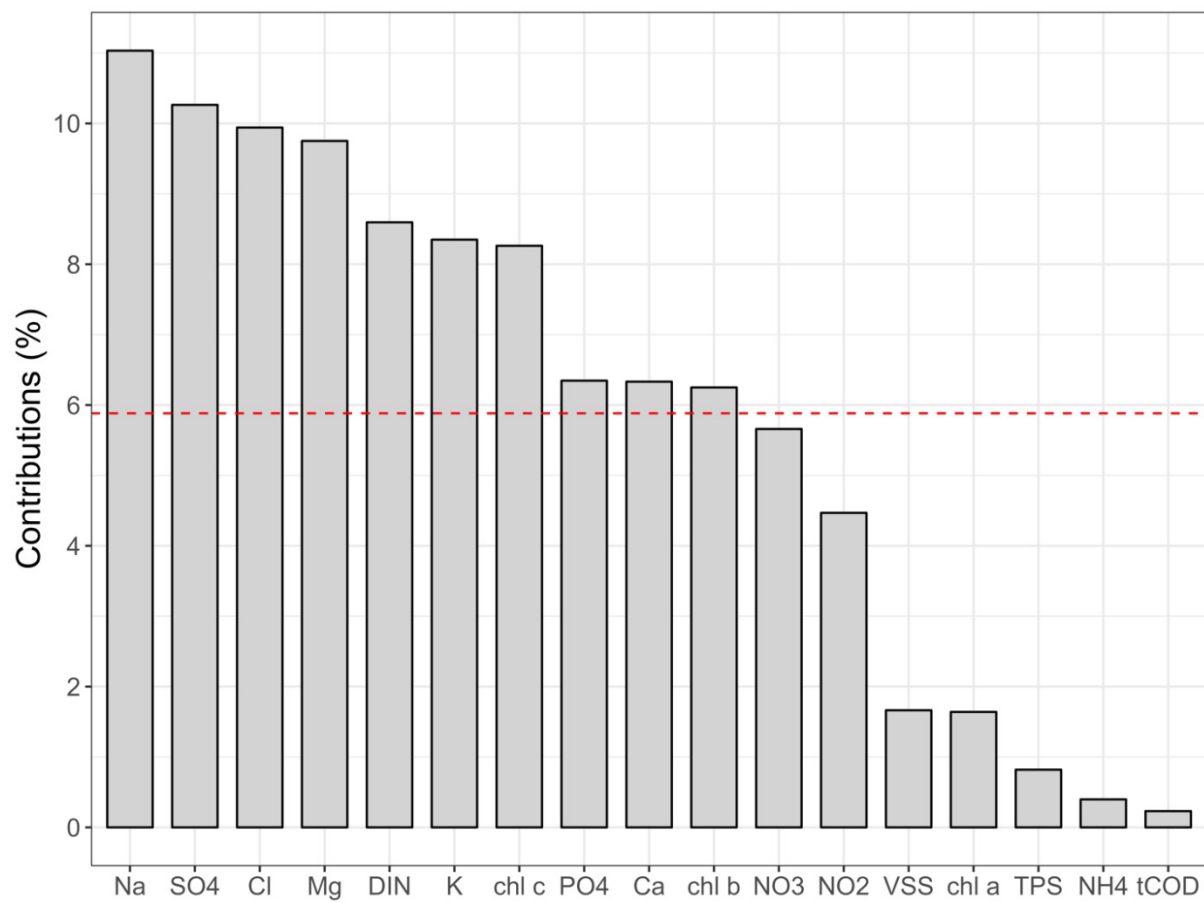
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Fig. S3. Contributing variables to PC1.
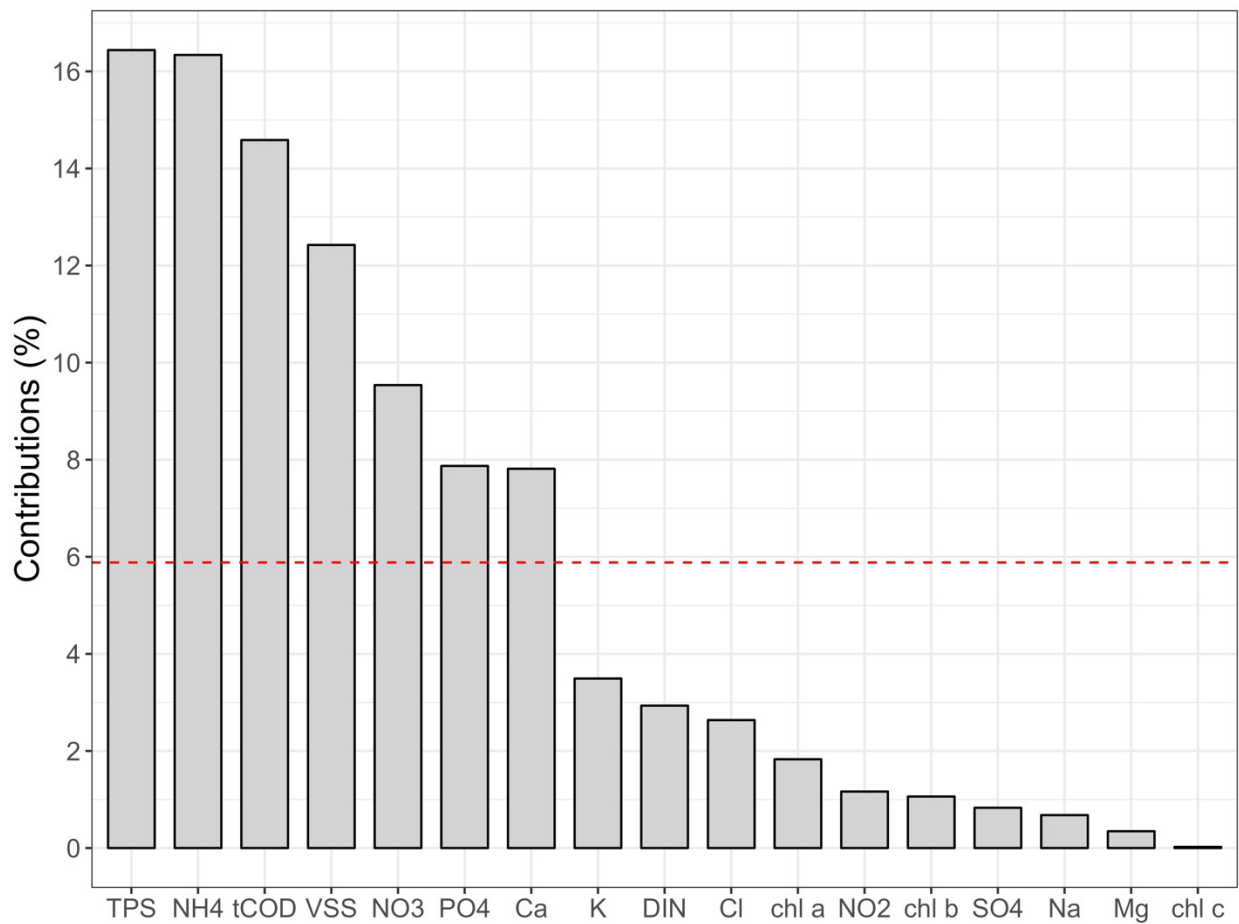
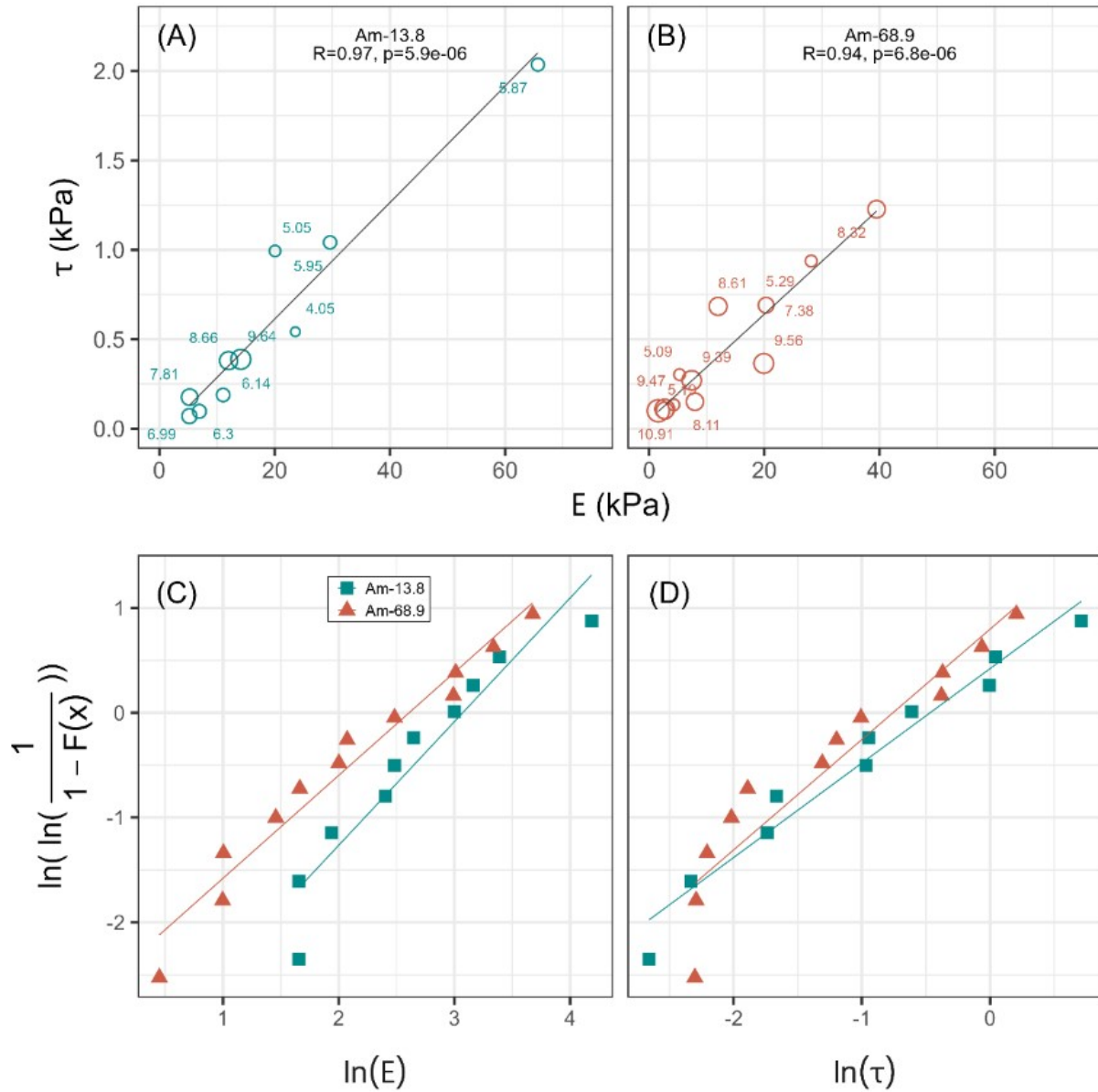53
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65 **Fig. S4.** Contributing variables to PC2.
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Fig. S5. The yield shear stress, τ_y versus the elastic modulus, E, for representative photogranules where the cultivations developed into A) majority disks (Am-13.8) or B) majority spheres (Am-68.9). The nominal diameter of each photogranule is shown above the marker in mm and the marker size is representative of the nominal diameter of each photogranule. Linearized two parameter Weibull distribution are also depicted for C) E and D) τ_y for cultivations Am-13.8 and Am-68.9.