

## Supplementary Materials

### Effect of Salinity on Cr(VI) Bioremediation by Algal-bacterial Aerobic Granular Sludge Treating Synthetic Wastewater

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## Materials and Methods

### *Chemical fractionation*

In this study, chemical fractionation was performed according to the sequential extraction procedure of Tessier et al. [1] with several modifications to extract six chemical fractions, including (1) F1, water-soluble; (2) F2, exchangeable; (3) F3, carbonate bound; (4) F4, Fe/Mn oxides bound; (5) F5, organic matter bound and (6) F6, residual fraction. A detailed step-by-step extraction procedure of fractions was described by our previous study [2].

### *Fourier transform infrared spectroscopy (FTIR)*

The granule samples (including the algal-bacterial AGS initially and the end of stage IV from R1 and R2) were firstly dried and then grounded to a powder. The infrared spectra of those prepared granule samples were recorded in potassium

bromide (KBr) pellets by a FTIR (JASCO FTIR-300, Japan) with the range of 400–4000  $\text{cm}^{-1}$ .

### References

1. Tessier, A.; Campbell, P. G. C.; Bisson, M. Sequential extraction procedure for the speciation of particulate trace metals. *Anal. Chem.* **1979**, *51* (7), 844–851.
2. Yang, X.; Zhao, Z.; Nguyen, B. V.; Hirayama, S.; Tian, C.; Lei, Z.; Shimizu, K.; Zhang, Z. Cr(VI) bioremediation by active algal-bacterial aerobic granular sludge: Importance of microbial viability, contribution of microalgae and fractionation of loaded Cr. *J. Hazard. Mater.* **2021**, *418*, 126342.

### Results and Discussion

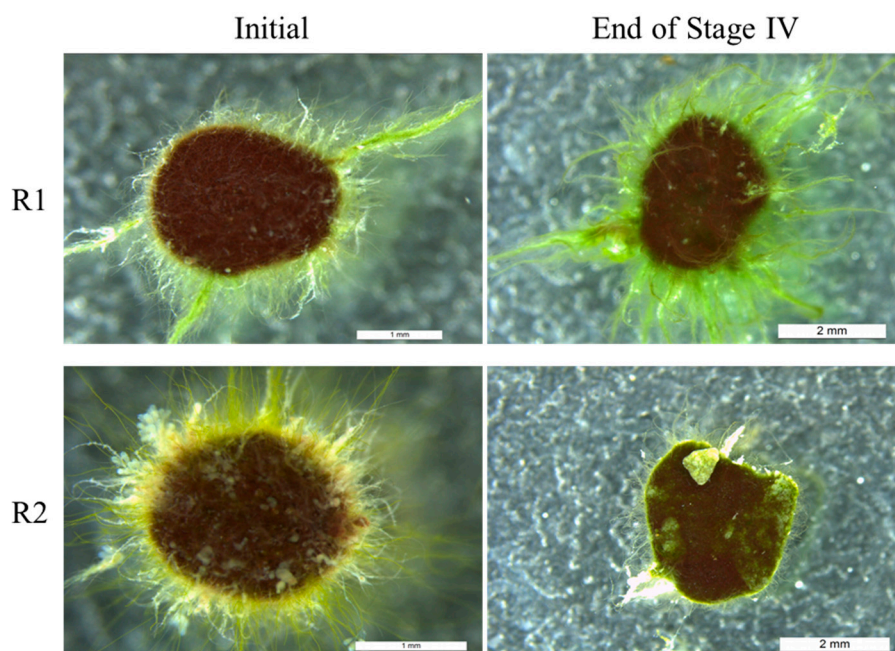


Fig. S1. Morphological changes of algal-bacterial AGS from R1 and R2 at the beginning and the end of the test, respectively.

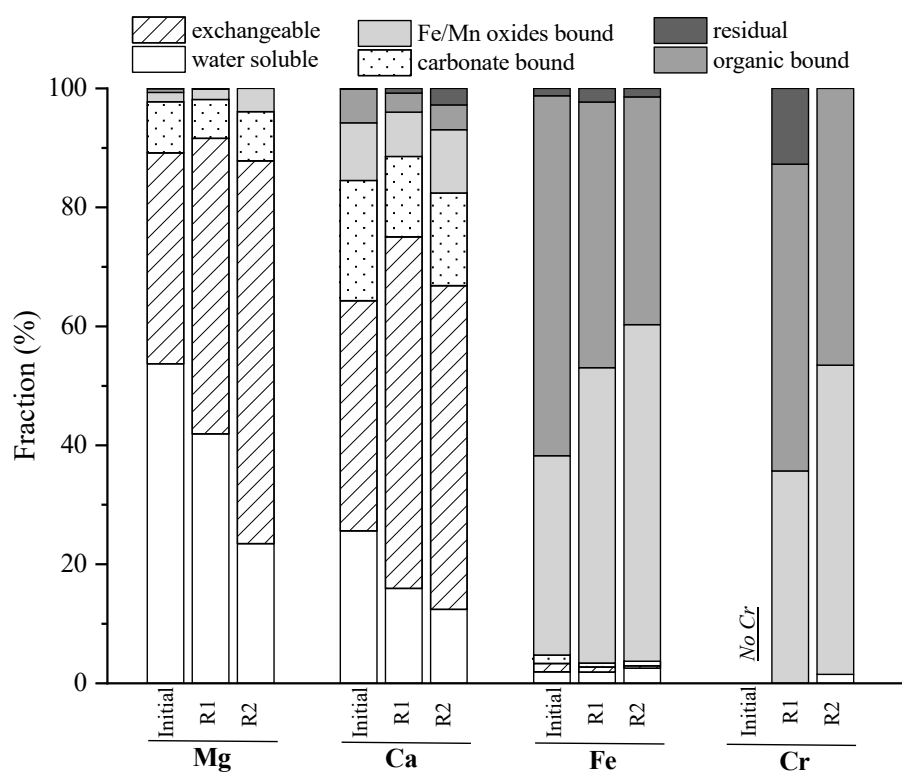


Fig. S2. Chemical fractionation of different metals extracted from the Cr-loaded algal-bacterial granules in R1 and R2, respectively.

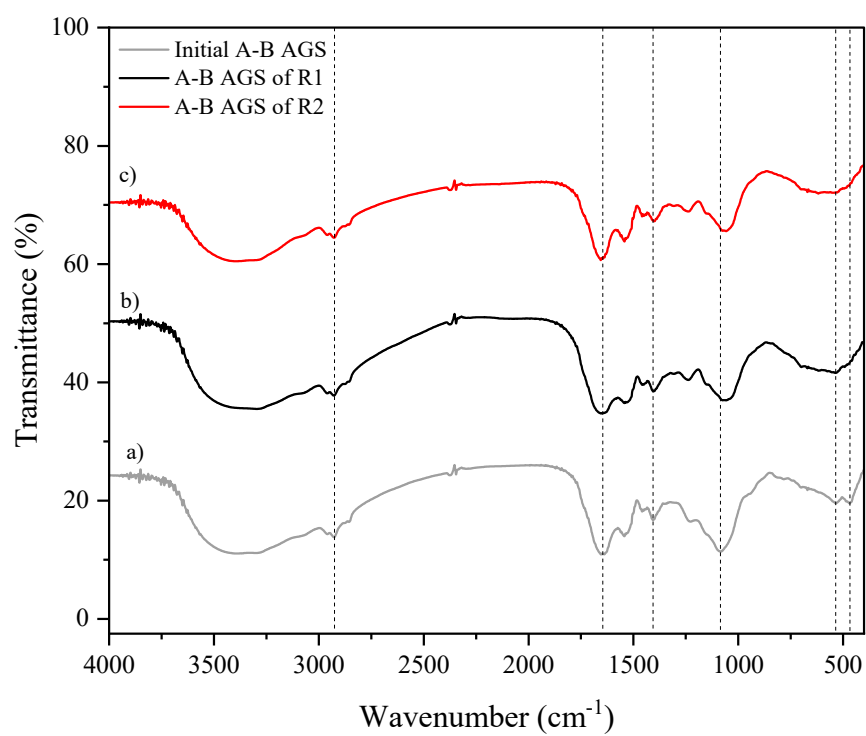


Fig. S3. FTIR spectra of (a) initial algal-bacterial AGS, (b) the granules from R1 (no salinity exposure) at the end of test, and (c) the granules from R2 (1% salinity exposure) at the end of test.