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Supplementary Materials: Evaluation of Power Ultrasonic Effects on Algae Cells at a Small Pilot Scale

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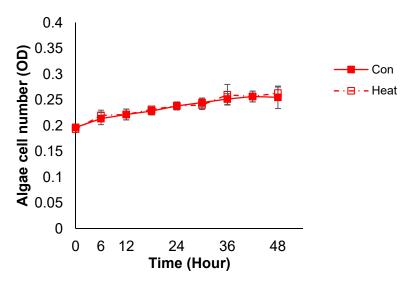


Figure S1. Heat of 1 L of *Microcystis aeruginosa* suspension at 30 °C for 15 minutes and culture for 48 hours (OD = optical density at 680 nm).

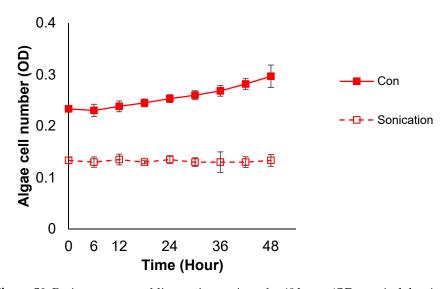


Figure S2. Resistance test on *Microcystis aeruginosa* for 48 hours (OD = optical density at 680 nm).

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| Method | | Dose & Period | % Cell Remaining | Ref. |
|-------------------|-------------------|----------------------------------|------------------|-----------|
| Chemical strategy | CuSO ₄ | 1.5 μM/96 h | 39.2 | [1] |
| | H_2O_2 | 100 μM/72 h | 6.6 | [1] |
| | Chlorine | 5 mg/L/60 min | ~97 | [2] |
| AOP strategy | UV | 0.5 W/mL/120 s | ~100% | [3] |
| | Ozone | 6 mg/L/5 min | ~98 | [2] |
| | DFR | 0.0256 W/cm ³ /10 min | 39.17 | This work |

Table S1. Review of conventional removal methods on *Microcystis* cells.

References

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- 2. Fan, J.; Ho, L.; Hobson, P.; Brookes, J. Evaluating the effectiveness of copper sulphate, chlorine, potassium permanganate, hydrogen peroxide and ozone on cyanobacterial cell integrity. *Water Res.* **2013**, *47*, 5153–5164.
- 3. Wang, B.; Wang, X.; Hu, Y.; Chang, M.; Bi, Y.; Hu, Z. The combined effects of UV-C radiation and H₂O₂ on microcystis aeruginosa, a bloom-forming cyanobacterium. *Chemosphere* **2015**, 141, 34–43.



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