

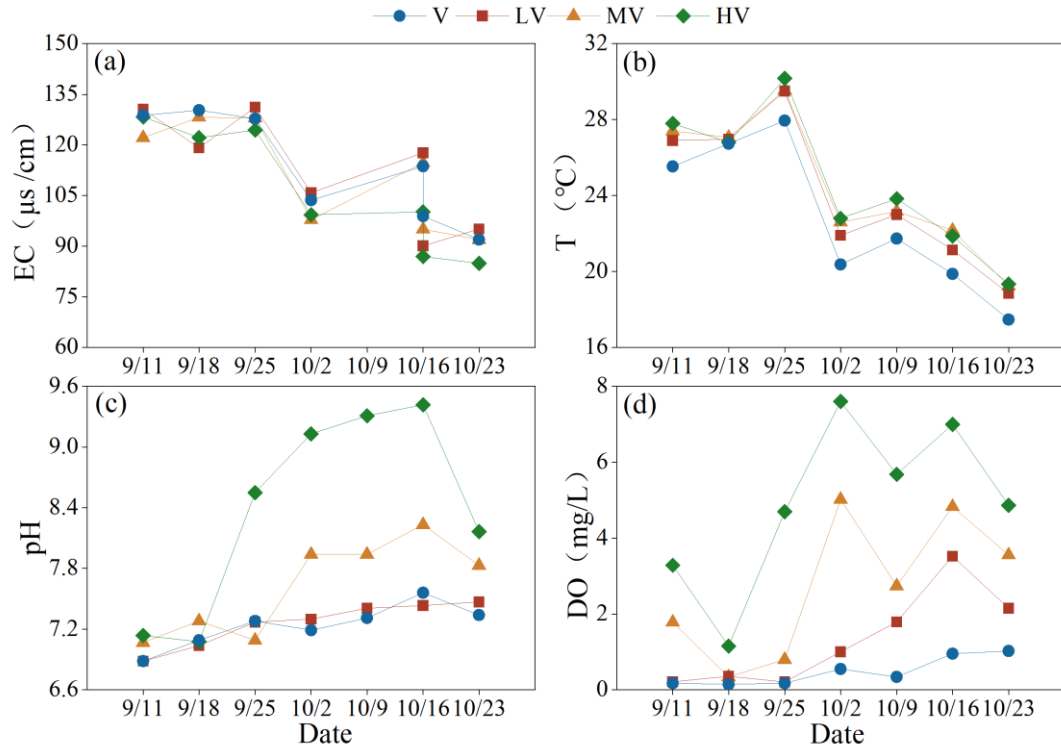


Figure S1. The changes in water (a) EC, (b) T, (c) pH and (d) DO in each experimental group in different periods.

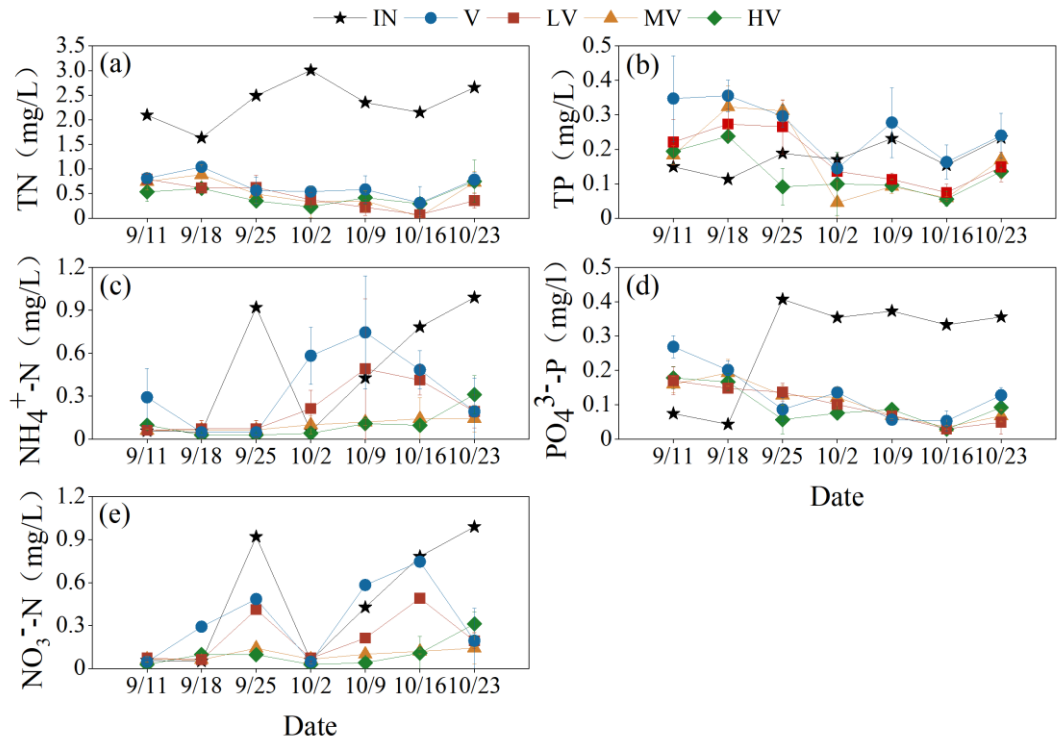


Figure S2. The changes in (a) TN, (b) TP, (c) NH_4^+-N , (d) $\text{PO}_4^{3-}-\text{P}$ and (e) NO_3^--N in each experimental group in different periods.

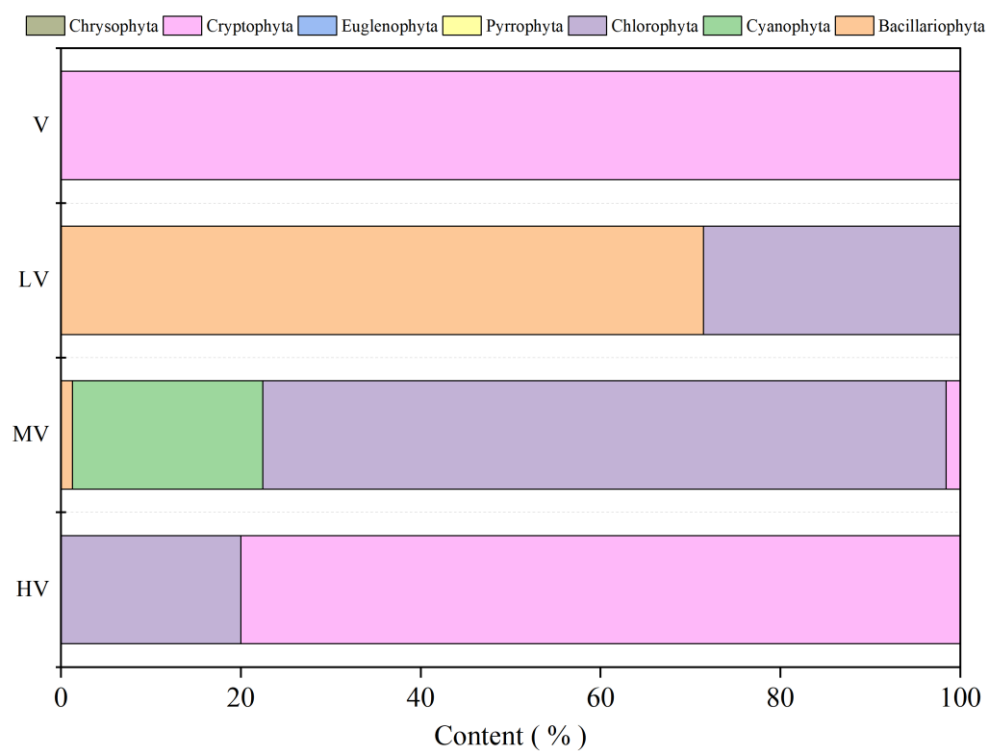


Figure S3. Differences in the percentage of algae cells in the experimental group under different light duration ratios.

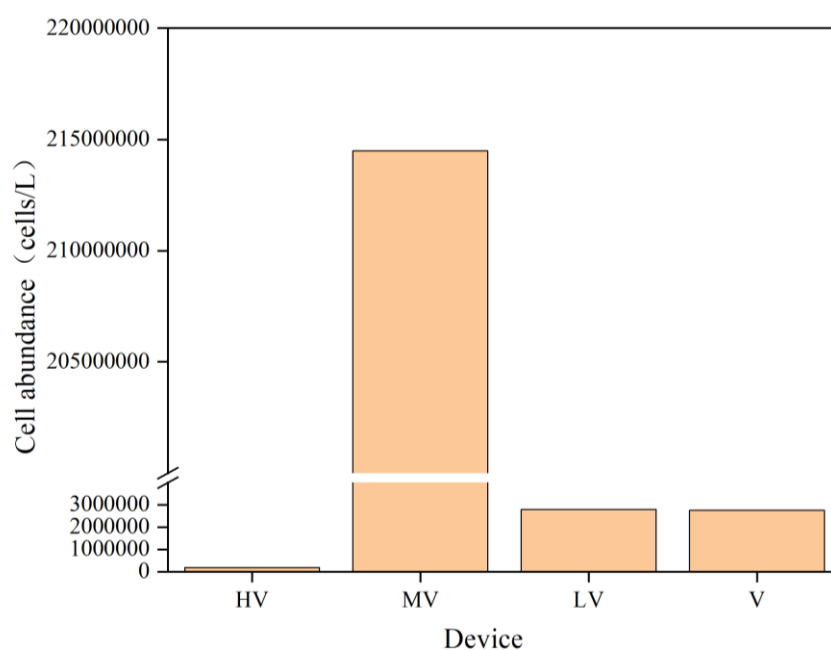


Figure S4. Difference in the abundance of algae cells in the experimental group under different light duration ratios.