The Effect of Phosphorous Limitation on Cyclotella

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Background

Phosphorous contributes to the DNA and chemical energy (ATP) of Cyclotella. Many metabolic pathways use require phosphorous.

Hypothesis

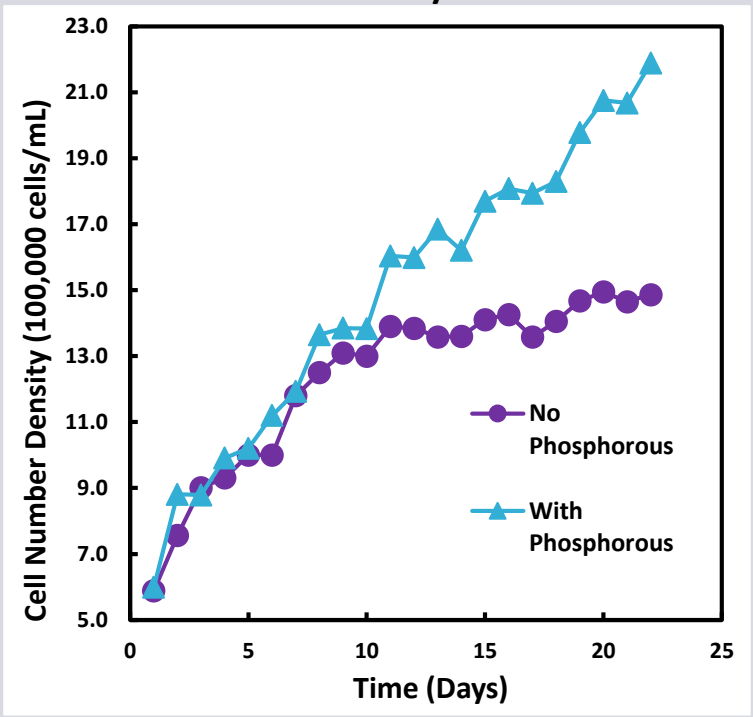
Cyclotella grown in a phosphorous limited environment will show less growth, photosynthetic capabilities, and biomass

Experimental Setup

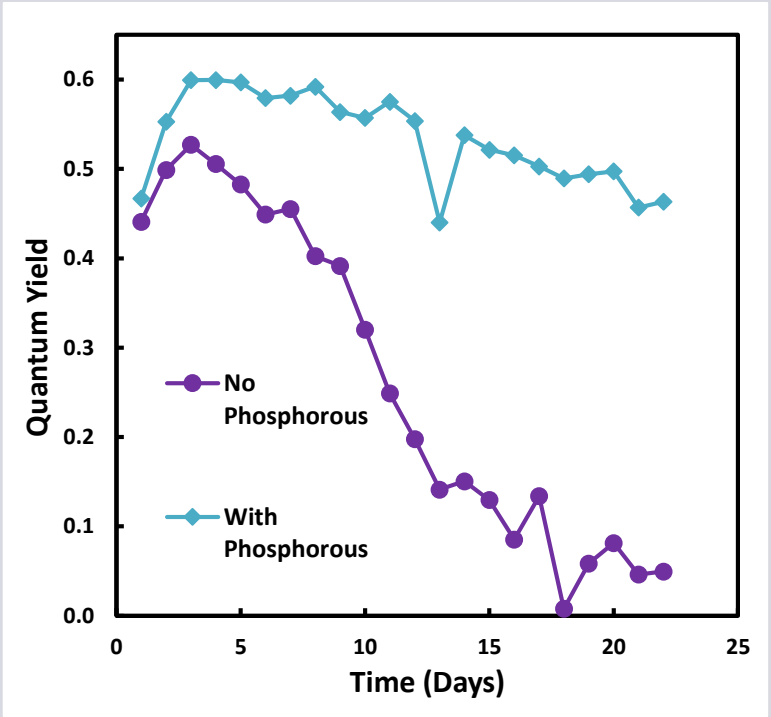
Contain Phosphorous

No Phosphorous

Cell Density



Quantum Yield from PAM Fluorometry



Conclusions

Phosphorous is essential to cell growth of Cyclotella. The cells are more capable of photosynthesis and are able to produce more biomass thus leading to higher lipid and chitin concentrations

Thanks to NSF EFRI Award Number 1240488, Oregon State University, College of Engineering, Dr. Gregory Rorrer, Altan Ozkan, Omar Chiriboga, Paul LeDuff