Biogeosciences

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Supplement of

Growth of the coccolithophore *Emiliania huxleyi* in light- and nutrient-limited batch reactors: relevance for the BIOSOPE deep ecological niche of coccolithophores

Laura Perrin et al.
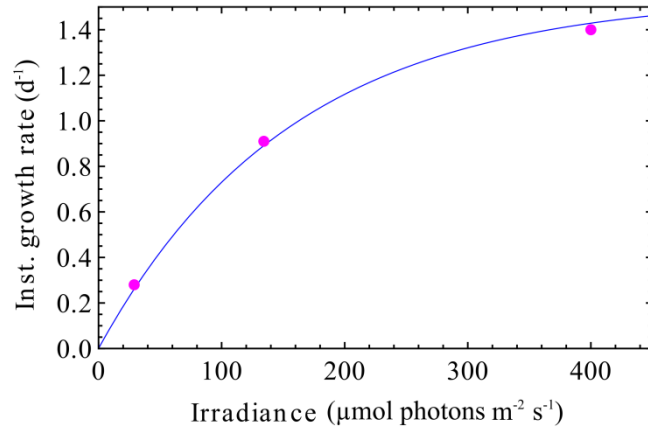
Correspondence to: Laura Perrin (lpelod@locean-ipsl.upmc.fr)

Figure S1. Instantaneous growth rate versus irradiance calculated with equation 10 (*KIrr* = 157 µmol photons m^{-2} s^{-1}). Pink points represent the irradiance and growth rate of the experiments carried out by Langer et al. (2013) and our experiments. The blue line is the result of equation 10.
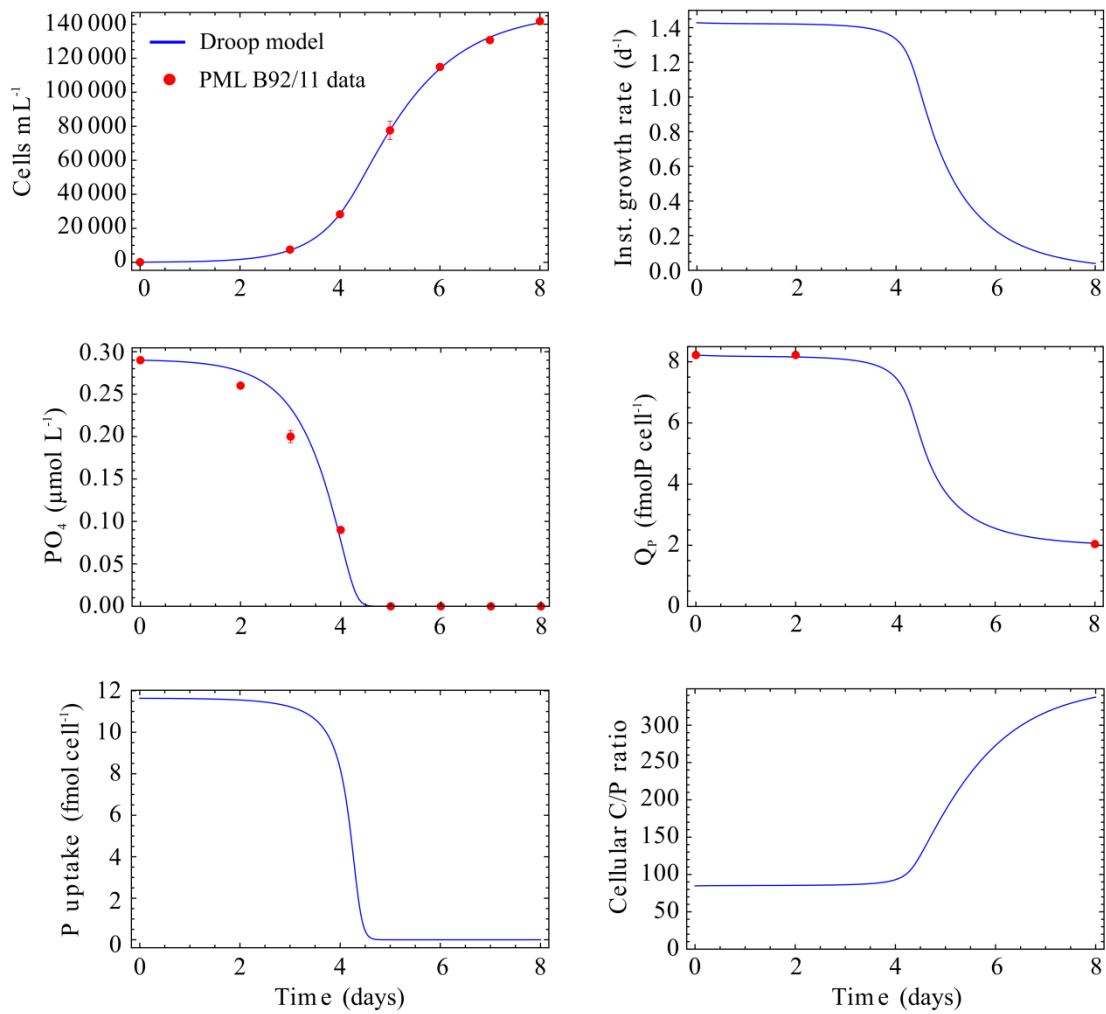

Figure S2. Model fitted to the data of the phosphate-limited cultures of Langer et al. (2013).
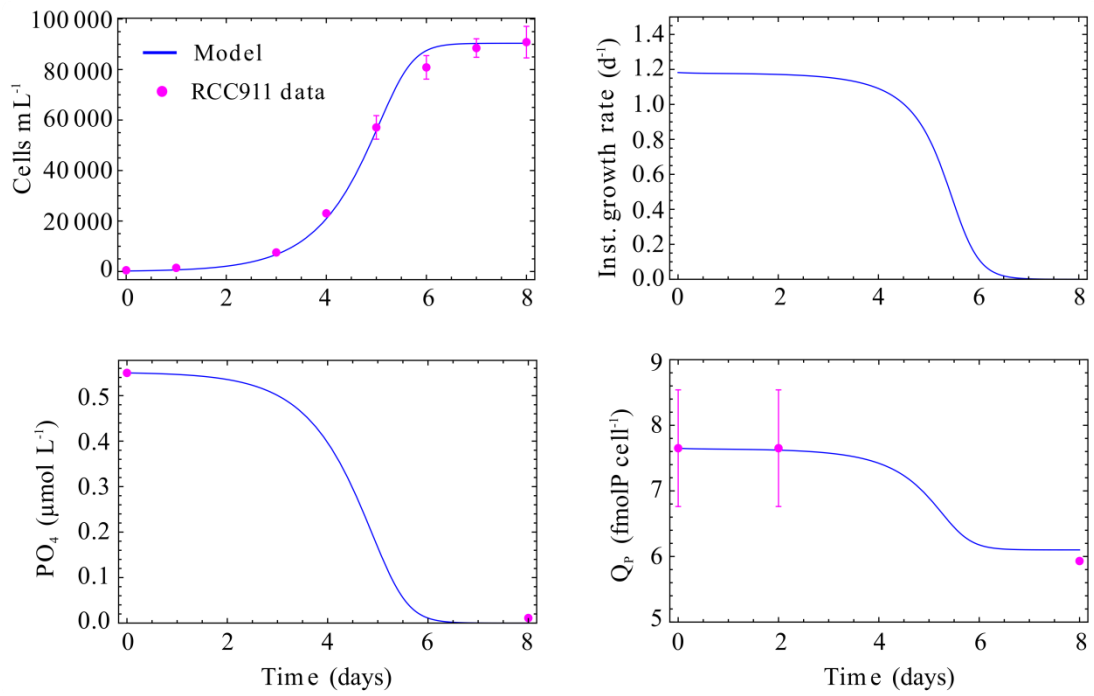
Figure S3. Model fitted to the data of the phosphate-limited cultures of strain RCC911 in high light conditions.
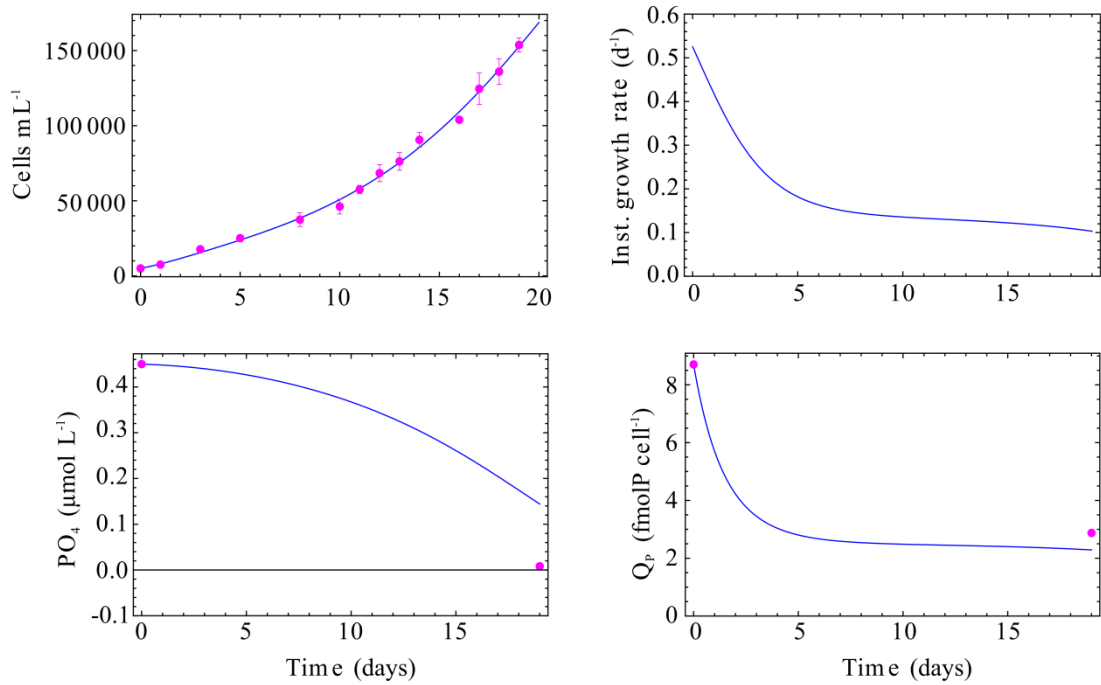

Figure S4. Model fitted to the data of the phosphate-limited cultures of strain RCC911 in low light conditions.
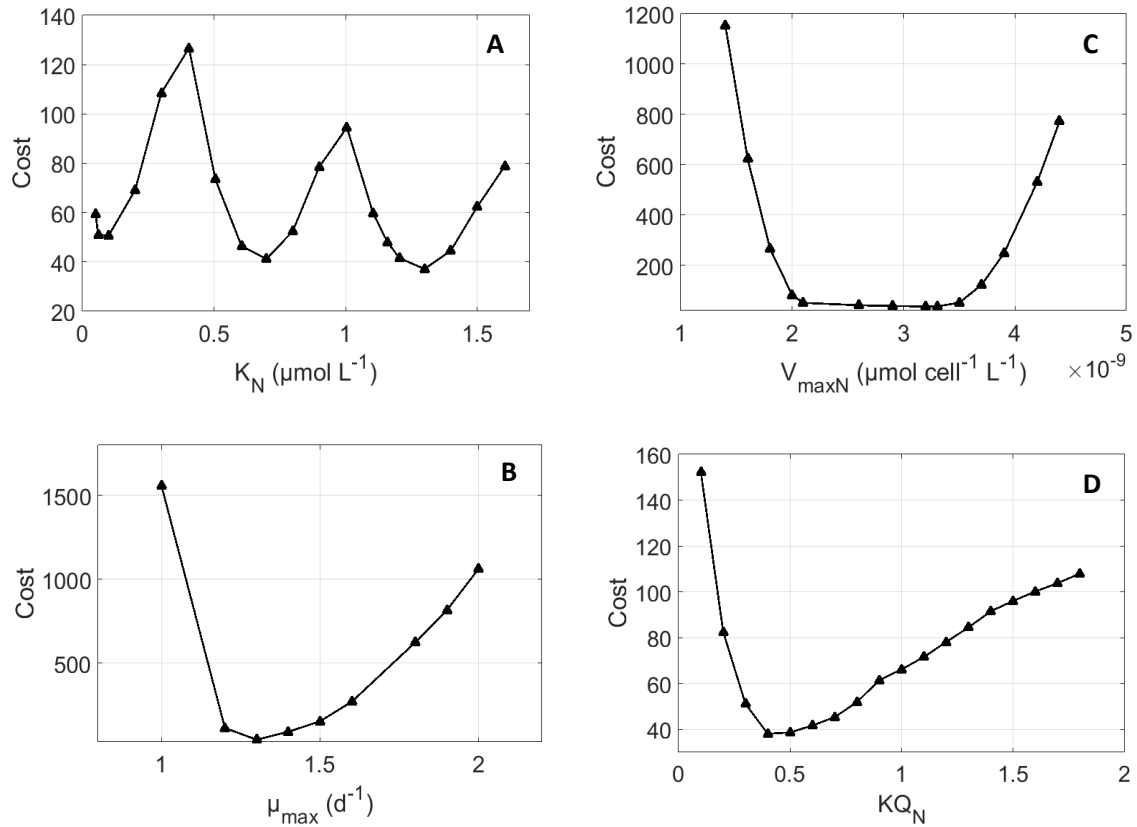
Figure S5. Variability of K_N (A), V_{maxN} (B), μ_{max} (C) and KQ_N (D) for the Langer et al. (2013) PML B92/11 experiment in nitrate-limited conditions.

Table S1. Cell, coccosphere volume and DSL (n=100 for coccosphere/cell measurements and n=300 for coccoliths measurements) at the end of our experiments. No measurement of coccosphere and DSL for control experiment in low light.

Sample	Cell volume		Coccosphere volume		DSL	
	μm^3	std	μm^3	std	μm	std
High light						
Control	49.97	16.38	109.5	23.3	3.05	*0.24*
PO$_4$ lim	77.21	19.89	260.5	88.2	3.27	*0.27*
NO$_3$ lim	47.33	11.13	139.2	41.2	2.78	*0.24*
Low light						
Control	33.69	10.09				
PO$_4$ lim	55.64	14.42	168.6	50.0	3.10	*0.27*
NO$_3$ lim	31.09	8.25	85.4	24.7	2.64	0.21