Supplemental Table S1: Calculation of added quantities of analytes as a result of nutrient enrichment during PW media preparation. Knowledge of the total analyte added is required for the calculation of the Relative Change of analytes after *P. tricornutum* cultivation, reported in Table 1.

Compound and quantity added to 1 L medium during nutrient enrichment[a]	Corresponding analyte and its proportional molar weight factors[b]	Quantity of the analyte in 1 L medium as a result of the enrichment[c]	Total of analyte added in 1L medium
$NaNO_3$, 75 mg (F/2 enrichment)	NO_3^-, 0.7294	54.71 mg	54.71 mg
$NaH_2PO_4 \cdot H_2O$, 5 mg (F/2 enrichment)	PO_4^{3-}, 0.68841	3.44 mg	3.44 mg
$FeCl_3 \cdot 6H_2O$, 3.15mg (F/2 enrichment)	Fe, 0.207	0.65 mg	0.65 mg
$ZnSO_4 \cdot 7H_2O$, 73 μg (ESAW enrichment)	SO_4^{2-}, 0.33403	24.38 μg	0.26 mg
$CoSO_4 \cdot 7H_2O$, 16 μg (ESAW enrichment)	SO_4^{2-}, 0.34051	5.45 μg	
$MnSO_4 \cdot 4H_2O$, 540 μg (ESAW enrichment)	SO_4^{2-}, 0.43061	232.29 μg	
$Na_2EDTA \cdot 2H_2O$, 4.36 mg (ESAW enrichment)	Na, 0.0615	0.268 mg	21.3 mg
$NaNO_3$, 75 mg (F/2 enrichment)	Na, 0.2694	20.21 mg	
$NaH_2PO_4 \cdot H_2O$, 5 mg (F/2 enrichment)	Na, 0.1659	0.83 mg	

[a] compounds and quantity are according to media enrichments as formulated by Guillard (1975; F/2 enrichment) and Berges *et al.* (2001; ESAW enrichment).

[b] value of the proportional molar weight factor is calculated by dividing the molar weight of the analyte by the molar weight of the medium enrichment compound.

[c] quantity of the analyte added as result of the enrichment is calculated by multiplication of the quantity in the first column with the proportional molar weight factor in the second column.