Supporting information

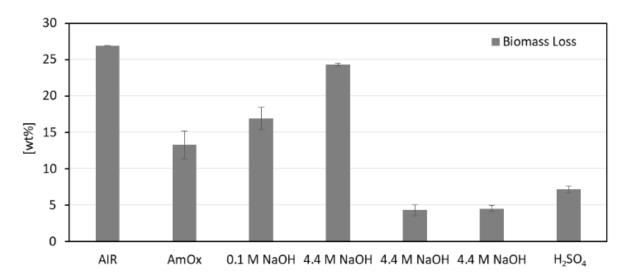


Fig 1: Stepwise degradation of algal biomass AIR. Biomass loss after each treatment (x-axis) referred to initial biomass (y-axis). AmOx: c(di-ammonium oxalate) = 20 mmol L-1, pH = 4, T = 70 °C, t = 1 h. 0.1 M NaOH: c(NaOH) = 0.1 mol L-1, T = 22 °C, t = 24 h. 4.4 M NaOH: c(NaOH) = 4.4 mol L-1, T = 22 °C, t = 8 h. H2SO4: 72 % H2SO4, T = 22 °C, t = 1 h, followed by dilution with water to 4 % H2SO4, T = 100 °C, t = 1 h. n = 3.

Table 1: Protein concentration analyzed with Lowry. BSA solution of 5.0 and 0.50 g L-1 treated with 4.4 mol L-1 NaOH for 8 h, 22 $^{\circ}$ C, 800 rpm

| BSA Stock | Protein detected after 24 h at 22 °C | |
|----------------------|--------------------------------------|-------------------------------|
| [g L ⁻¹] | in 4.4 M NaOH [g L ⁻¹] | in water (g L ⁻¹] |
| 5.0 | 5.6 | 5.5 |
| 0.50 | 0.52 | 0.54 |

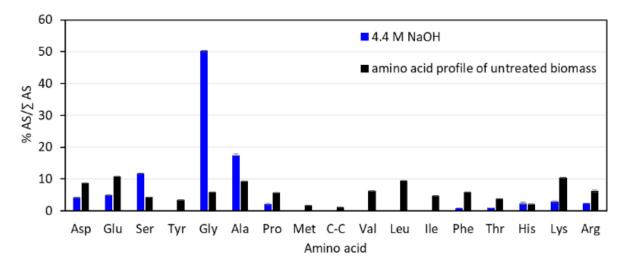


Fig 2: Determination of free amino acids. Free amino acids (x-axis) detected in fraction 4.4 M NaOH (blue) compared to the amino acid profile of untreated Chlorella biomass (black).