

OD-CDW correlation of *Chlorella vulgaris* by dilution

For an initial estimation of the CDW in the cultivation we produced a CDW-OD correlation of a concentrated *C. vulgaris* culture. Therefore twenty 15 x 150mm test tubes were labeled from 1 to 20 and put into the cleanroom drying oven UF750plus from Memmert GmbH + Co. KG for 1 day at 105 °C. After the drying process the weight of the tubes was measured with the laboratory scale sartorius Basic from sartorius AG and noted together with the tube number. Starting from OD 5 we diluted in 0.5 steps according to the scheme below.

Tabel1: Scheme of the dilution of a *Chlorella vulgaris* culture at an OD of 5 at 750 nm in corresponding tubes.

Tube ID	OD₇₅₀
1	5
2	5
3	4.5
4	4.5
5	4
6	4
7	3.5
8	3.5
9	3
10	3
11	2.5
12	2.5
13	2
14	2
15	1.5
16	1.5
17	1
18	1
19	0.5
20	0.5

Optical density was measured right after every dilution before transferring the culture in to the labeled tubes. 10 ml of the corresponding dilution was pipetted into the labeled tubes. The tubes were centrifuged for 10 min at 3000 x g at RT. Supernatant was discarded, and the pellet was washed with 5 mL of a 0,9% NaCl-solution. The tubes were again centrifuged for 10 min at 3000 x g at RT. Supernatant was again discarded, and the pellet was washed with distilled water. A third centrifugation step at 3000 x g at RT was performed. The supernatant was discarded and the tubes with the pellets were put into the cleanroom drying oven UF750plus from Memmert GmbH + Co. KG for two days at 105 °C. The tubes with the pellets were cooled to RT and weighted with the laboratory scale sartorius Basic from sartorius AG. To calculate the pellet weight, we subtracted the weight of the tubes from the weight of the tubes with the algae pellet. At the end we took the average of the double measured optical densities to create the CDW-OD₇₅₀ correlation plot.