\*\*\*Reversible fouling by particulate matter from natural seawater reduces RED performance while limiting biofouling\*\*\*

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\*\*\*General Introduction\*\*\*

This dataset contains data collected during experiment on foulant fractionation of seawater in reverse electrodialysis (RED). It is being made public both to act as supplementary data for publication and in order for other researchers to use this data in their own work.

This work was performed in Wetsus, European Centre of Excellence for Sustainable Water Technology, between September 2020 and December 2020.

File: 2a\_Pressure\_drop\_stacks.csv : includes the data measured of pressure drop for each stack in the day of experiment

File: 2b\_Electrochemical\_performance : includes the summary of the data recorded by the Potentiostat (Ivium). Column A shows the file name, column B the start time of the measurement, column C the time moment that the measurement of that sequence was made, column D the current on the moment of the measurement, and columns E to J the measured voltage of each of the 6 stacks, in the following order: DM I, DM II, Micro I, Micro II, AC I and AC II.

File: 3\_Cleaning\_pressure\_drop\_TSS : includes the data of the pressure drop measured during the cleaning steps and the total suspended solids values of the effluent collected in each cleaning step. The naming of the columns is according to the cleaning steps performed in stack DM I. Suspended solids is calculated by subtracting the initial weight of the crucible and the filter from the weight after 105 C oven and adjusting the units to have the final result in mg.

File: 5\_Autopsy\_particle\_size: Includes the data of the particle size distribution analysis from the samples recovered from the membrane surface for each type of membrane from stack DM I and DM II. The size classes are given in µm and the column with volume density (%) gives the percentage of particles that are present on the correspondent size class.

For better understanding of the experimental conditions and methods of analysis we recommend to check the article, which we will update the DOI once is published.