

POSTDOCTORAL RESEARCHER

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Brief bio

My name is Jens and I'm currently doing my second PostDoc at ETH Zurich. My scientific focus is on marine biogeochemistry, meaning I try to understand how organisms - including homo technicus - shape their chemical environment, and vice versa. To do so, I enjoy wrangling, visualizing, synthesizing and thereby understanding data obtained mainly from autonomous observatories such as voluntary observing ships, floats and buoys. If the CO2 content of seawater is involved in one way or another, this makes me even more happy.

Education

Flying University

INFORMAL STUDIES

Warsaw, Poland
1889-91

Sorbonne Université

Paris, France

Master of Physics 1893

Sorbonne Université Paris, France

MASTER OF MATHEMATICS

Nobel Prizes

Awarded for her work on radioactivity with Pierre Curie and Henri Becquerel

1894

1903 Nobel Prize in Physics

Publications

PEER REVIEWED

Gruber, N., Bakker, D. C. E., DeVries, T., Gregor, L., Hauck, J., Landschützer, P., McKinley, G. A., and Müller, J. D.: Trends and variability in the ocean carbon sink, Nature Reviews Earth & Environment, 1–16, https://doi.org/10.1038/s43017-022-00381-x, 2023.

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Jacobs, E., Bittig, H. C., Gräwe, U., Graves, C. A., Glockzin, M., Müller, J. D., Schneider, B., and Rehder, G.: Upwelling-induced trace gas dynamics in the Baltic Sea inferred from 8 years of autonomous measurements on a ship of opportunity, Biogeosciences, 18, 2679–2709, https://doi.org/10.5194/bg-18-2679-2021, 2021.

Müller, J. D., Schneider, B., Gräwe, U., Fietzek, P., Wallin, M. B., Rutgersson, A., Wasmund, N., Krüger, S., and Rehder, G.: Cyanobacteria net community production in the Baltic Sea as inferred from profiling pCO_{2} measurements, Biogeosciences, 18, 4889–4917, https://doi.org/10.5194/bg-18-4889-2021, 2021.

Sanders, T., Thomsen, J., Müller, J. D., Rehder, G., and Melzner, F.: Decoupling salinity and carbonate chemistry: Low calcium ion concentration rather than salinity limits calcification in Baltic Sea mussels, Biogeosciences, 18, 2573–2590, https://doi.org/10.5194/bg-18-2573-2021, 2021.

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Müller, J. D., Schneider, B., Aßmann, S., and Rehder, G.: Spectrophotometric pH measurements in the presence of dissolved organic matter and hydrogen sulfide: Perturbations of spec pH measurements, Limnology and Oceanography: Methods, 16, 68–82, https://doi.org/10.1002/lom3.10227, 2018b.

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Saderne, V., Fietzek, P., Müller, J. D., Körtzinger, A., and Hiebenthal, C.: Intense pCO2 and [O2] Oscillations in a Mussel-Seagrass Habitat: Implications for Calcification., Biogeosciences Discussions, 1–33, https://doi.org/10.5194/bg-2017-351, 2017.

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Rodgers, K., Schwinger, J., Fassbender, A., Landschützer, P., Yamaguchi, R., Frenzel, H., Stein, K., Müller, J. D., Goris, N., Sharma, S., Bushinsky, S., Chau, T.-T.-T., Gehlen, M., Gallego, M. A., Gloege, L., Gregor, L., Gruber, N., Hauck, J., Iida, Y., Ishii, M., Keppler, L., Kim, J.-E., Schlunegger, S., Tjiputra, J., Toyama, K., Ayar, P. V., and Vélo, A.: Seasonal variability of the surface ocean carbon cycle: A synthesis, Preprints, https://doi.org/10.22541/essoar.168167394.47800179/v1, 2023.

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DATASETS

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