GRIET J. NEUKERMANS

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RESEARCH INTERESTS

I am a marine scientist with expertise in ocean observation and advanced technologies for studying marine biogenic carbon cycling. My work includes development of bio-optical sensors and detection algorithms, biogeochemical and optical characterization of marine particles, autonomous ocean observation systems, and ocean color satellite algorithm development and data processing. I mainly harness these technologies to investigate planktonic ecosystem dynamics and the ocean's biological and carbonate pumps.

EDUCATION

2008-2012	PhD in Marine optics and Remote Sensing, Université du Littoral Côte d'Opale, Wimereux, France. *Optical in situ and geostationary satellite-borne observations of suspended particles in coastal waters*, with greatest distinction. (Promoters: Prof. H. Loisel and Dr. K. Ruddick)
2004-2005	Teacher education in Mathematics, Brussels University, Belgium
2002-2004	MSc. in Marine and Lacustrine Science and Management, Brussels University, Belgium.
2000-2002	MSc. Applied Mathematics, Brussels University, Belgium.
1997-2000	BSc. Mathematics, Brussels University, Belgium

ACADEMIC POSITIONS AND EMPLOYMENT HISTORY

2020-now	Research Professor, Department of Biology, Ghent University, Belgium. Head of the Marine Optics and Remote Sensing (MarSens) group.
2017-2019	Marie Skłodowska-Curie Postdoctoral Fellow, Laboratoire d'Océanographie de Villefranche-sur-Mer, Sorbonne Université, France.
2014-2017	Banting Postdoctoral Fellow, Takuvik Joint International Laboratory, Université Laval, Canada.
2012-2014	Postdoctoral researcher, Scripps Institution of Oceanography, UC San Diego, USA.
2008-2012	Research Scientist at the Royal Belgian Institute for Natural Sciences, Belgium.
08-11/2007	Research assistant at NATO Center for Maritime Research and Experimentation, Italy.
02-07/2007	Coordinator of International Master Program in Oceans and Lakes, Brussels University, Belgium
2005-2007	Researcher at Laboratory for Plant Biology, Brussels University, Belgium.

SCIENCE FUNDING

2025-2030	BELSPO Earth Observation grant for coccolithophores and their influence on shelf sea CO2 sinks (416k€), project coordinator.
2025-2027	BELSPO Earth Observation grant for particulate carbon in the North Sea (300k€), co-I
2024-2026	VLAIO Blue Cluster ICON grant to map the carbon budget of the Belgian Part of the North Sea (500k€), co-I
2021-2028	European Research Council (ERC) Starting Grant for robotic monitoring of the Biological carbon pump, ERC-CarbOcean website (2 M€), PI

2020-2022	*UGent Industrial Research Fund* to develop an autonomous PIC sensor (175k€), PI
2020-2024	*UGent Bijzonder Onderzoeksfonds Startkrediet* for starting Professors (220k€), PI
2017-2019	Marie Skłodowska-Curie Standard European Fellowship (173k€), PI
2015-2017	*Banting* postdoctoral fellowship (140 000 CAD), PI
2014	*Monterey Bay Aquarium Research Institute* postdoctoral fellowship (106 kUSD, declined)

AWARDS

2019	European Research Council (ERC) Starting Grant, CarbOcean project.
2017	European Commission award for exemplary Marie Skłodowska-Curie fellow, Brussels, Belgium
2016	VLIZ (Flanders Marine Institute) Award for best oral presentation, Bruges, Belgium
2012	VLIZ North Sea Award for PhD dissertation, Bruges, Belgium
2010	European Commission distinguished poster award, Oceans From Space, Venice, Italy
2009	VLIZ award for best poster, Bruges, Belgium
2008	The Oceanography Society Honourable Mention Student Paper, Ocean Optics, Barga, Italy
2004	VLIZ Young Researcher's Thesis Award for MSc. Thesis, Bruges, Belgium

HONOURS

2025-2026	Elected Chair of the 27th international Ocean Optics Conference (by The Oceanography Society), held in Ghent (Belgium), 13-18 September 2026.
2023	Invited expert European Marine Board working group on Blue Carbon (by EMB)
2022	Invited expert Symposium on Advances in Ocean Observation (by Alvera-Azcarate/Eidsvik/Kajan)
2022	Invited expert in European Digital Twin Ocean meeting (by Mercator Ocean)
2021	Expert JPI Oceans knowledge hub Ocean carbon capacities.
2017	Invited expert at the 4th pan-Arctic research symposium, Motovun, Croatia (by P. Wassmann)
2016	Invited expert *EUMETSAT Expert Exchange Copernicus Marine Data Stream*, IOC project office for IODE, Ostend, Belgium (by E. Kwiatkowska)
2016	Invited expert *ESA/SOLAS workshop*, ESA-ESRIN, Frascati, Italy (by E. Boss)

ACADEMIC AND PROFESSIONAL SERVICE

- **Key international roles:** Co-lead of Joint Exploration of the Twilight Zone Ocean Network (JETZON) biological pump benchmark initiative (since 2023); co-chair of European EuroGOOS Argo task team (since 2022); invited member of BioGeoChemical-Argo technology task team (since 2023); selected member of JPI Ocean's Knowledge Hub on Ocean Carbon Capacities (2022-2023), member of the Belgian Polar Research Community (since 2024); selected member of the International Ocean Optics Conference planning committee (2023-2024) and Chair of the Ocean Optics Conference (2025-2026).
- **Editorial tasks:** Associate editor Frontiers in marine science (2019-2025); editor 7th Ocean State Report (2023-2024)
- **Organisation of workshops and conferences:** 10th EuroGOOS International Conference (2023), International Ocean Optics Conference XXVI (2024) and XXVII (2026), 8th Euro-Argo Science Meeting (2025), and > 10 national workshops/symposia.
- **Steering committees and advisory boards:** ORSECT-UK project (Plymouth Marine Laboratory, UK, 2018-2019), Advisory board member of the EU-UKRI OceanICU project (since 2023), member of VLIZ scientific committee (since 2021).
- **Proposal evaluation:** for the National Environment Research Council (NERC, UK), Marie Sklodowska-Curie Postdoctoral Fellowships, German Federal Ministry of Education and Research (BMBF), National Science Centre of Poland, Centre National de la Recherche Scientifique (CNRS, France), Schmidt Ocean Institute (USA).

- **Journal article peer-review** (>30 papers) for a wide variety of Journals (Science, Earth System Science Data, Marine Ecology Progress Series, Remote Sensing of Environment, Journal of Geophysical Research, Limnology and Oceanography, Optics Express, Journal of Applied Sciences, …)
- **Evaluation committees:** (1) PhD of J. Su "Carbon export and mesoscale eddy structure in the Southern Ocean revealed by BGC-Argo floats" (University of Tasmania, Australia, 2022); (2) PhD of A. Castagna "Optical methods, uncertainties, and algorithms for remote sensing of coastal and inland water quality" (UGent, Belgium, 2022); (3)PhD of F. Ricour "New insights into biogenic carbon transport in the global ocean" (Sorbonne University, France, 2023); (4) PhD of A. Brun "Deciphering the role of phytoplankton and their production of marine gels in particle dynamics in the North Sea" (UGent, 2025); (5) HDR of O. Sulpis "The marine carbonate cycle" (Centre de recherche et d'enseignement des géosciences de l'environnement, CEREGE, France, 2026).

Supervision, mentorship, and leadership

I am promoter of three ongoing PhD theses at UGent; co-promoter of a completed joint (UGent-Sorbonne) PhD thesis; supervisor of two ongoing, two planned (Academic Year 2025-2026), and three completed master of science thesis students.

2026-now	PhD promoter of Timotheus Fugl. *Remote sensing of coccolithophore calcite and calcification in the North Sea and Barents Sea*, co-supervised with Prof. Dr. B. Delille (ULiège, Belgium).
2024-now	PhD promoter of Maurie Keppens. *The influence of extreme events on the carbon balance of the Belgian Part of the North Sea*, co-supervised with Dr. P. Landschutzer (VLIZ, Belgium).
2024-now	PhD promoter of Andrea van Langen-Roson. *Understanding the physical and biological drivers of carbon fluxes and their spatiotemporal variability in the coastal ocean*, co-supervised with Dr. P. Landschutzer (VLIZ, Belgium).
2021-now	PhD promoter of Qiming Sun. *Development of a submersible, autonomous sensor for the quantification of Particulate Inorganic Carbon in the ocean*, co-supervised with Prof. Dr. K. Neyts and P. Beunis (Liquid Crystals and Photonics, UGent, Belgium).
2019-2023	PhD co-promoter of Louis Terrats. *Linking the particle carbon flux to the phytoplankton community: an approach based on BGC-Argo and ocean colour remote sensing*, co-supervised with Dr. H. Claustre (Sorbonne University, France).
2024-now	Promoter Master in Mathematics student Z. De Troyer, Excellence Program in Science (EPIC) project on *Classification of in situ hyperspectral remote sensing reflectance spectra* (UGent, Belgium)
2024-now	Promoter Oceans and Lakes Master thesis student T. Fügl, *Hyperspectral remote sensing of a coccolithophore bloom in the Iceland Basin June 2024* (UGent, Belgium)
2018-2019	Co-supervisor of Master thesis student L. Terrats, *Coccolithophore blooms detection with BGC-Argo floats* (AMU Marseille, France)
2010-2011	Co-supervisor of Master thesis student T. Vaes, *Improving the spatial resolution of total suspended matter maps using the HRV band of the SEVIRI geostationary satellite in the North Sea* (VUB, Belgium)
2008-2009	Co-supervisor Master intern Q. Vanhellemont, *Optimization and quality control of turbidity measurements in the North Sea* (Ghent University, Belgium).

Leading field expeditions: Chief scientist of five ship-based expeditions on R.V. Belgica and R.V. Simon Stevin; Lead of optical-biogeochemical work on the ice-covered waters of Baffin Bay (GreenEdge project).

Teaching

- **Co-lecturer** Climate Change Course, "*The Ocean Carbon Pumps : how the Oceans produce, move, and store carbon*" , Master of Science in Biology (since 2022).
- **Lecturer in Charge** of *Oceanography* Course, International Master in Marine and Lacustrine Science and Management (4 ECTS) and in the International Master of Science in Marine Biological Resources (IMBRSea, 6 ECTS) (Academic Year 2025-2026 onwards).

- **International Summer Schools:** Ocean biogeochemistry and remote sensing at the International Ocean Colour Science Summer School (2018, 2020), International Blue Carbon summer school (2022).

INVITED TALKS AND SEMINARS

2024	Talk "Towards autonomous observations of the ocean's carbonate pump", Third China - Europe Frontier Forum on the Progress in Ocean Science and Technology (FFPOST 3) (invited by the *European Academy of Sciences*)
2024	Seminar "The open ocean carbonate pump", Bristol University, UK (invited by. Prof. F. Monteiro)
2024	Talk "Current quantitative understanding and perspectives for autonomous observation of the open ocean carbonate pump" (online), Woods Hole Oceanography Institution (WHOI), USA (invited by A. Martin, coordinator of JETZON)
2023	Talk "Towards autonomous observation of coccolithophores and the open ocean carbonate pump", Advances in coccolithophore research Symposium, Bergen, Noway
2022	Talk "Autonomous observations of organic and inorganic carbon particles: new sensors for BGC-Argo floats" at Symposium on Advances in Ocean Observation (invited by A. Alvera Azcarate).
2022	Talk "The Biological Carbon Pump - Advances in Observing technology", European Marine Board Fall plenary open session "Ocean Carbon". InnovOcean campus, Ostend, Belgium (invited by the *European Marine Board*).
2021	Keynote talk at Marine Science Day of Flanders Marine Institute (VLIZ), Ostend, Belgium
2019	Seminar Max Planck Institute for Chemistry, Mainz, Germany (invited by Prof. R. Schiebel)
2019	Keynote talk *International Ocean Colour Science Meeting*, Busan, South Korea (invited by C. Wilson, chair of the *International Ocean Colour Coordinating Group*, IOCCG)
2019	Seminar, Marine Science Laboratory (LEMAR), Brest, France (invited by L. Memery)
2019	Seminar, Roscoff Biological Station, Roscoff, France (invited by C. De Vargas)
2018	Talk at the International Biogeochemical-Argo float Workshop, Hobart, Australia (invited by Prof. P. Boyd)
2018	Lecture at the *International Summer School of the IOCCG*
2018	Biogeochemistry seminar, GEOMAR, Helmholtz Centre for Ocean Research, Kiel, Germany (invited by Prof. U. Riebesell)
2018	Seminar, ACRI-ST, Sophia-Antipolis, France (invited by A. Mangin)
2017	Talk at the 4th pan-Arctic research symposium, Motovun, Croatia (invited by P. Wassmann)
2017	Lecture (video), Slovenia's National Institute of Biology, Piran, Slovenia (invited by T. Tinta)
2017	Pitch-talk, Science is Wonderful event, Parliamentarium, Brussels (invited by European Commission)
2016	Seminar, Laboratoire d'Océanographie de Villefranche-sur-Mer, France (invited by H. Claustre)
2014	Seminar, Takuvik UMI, Université Laval, Canada (invited by M. Babin)
2014	Seminar, Scripps Institution of Oceanography, UC San Diego
2011	*Optical Processes Symposium workshop, NATO CMRE*, La Spezia, Italy (invited by C. Trees)
2009	Seminar, Laboratoire d'Océanographie de Villefranche-sur-Mer, France (invited by D. Antoine)

OUTREACH AND PUBLIC ENGAGEMENT

1. Interview on national Radio (Radio1, in Dutch) on the marine heat wave of 2023 and the importance of Argo floats to detect them (July 2023).
2. European Researcher's night 2021: Women in Science portrait [Podcast in Dutch] by Wisenight. (24-25 September 2021, Brussels)
3. Testimonial UGent postdoc event: *My career path to Professorship* (2021), link to presentation video.

4. "*2021: A Science Odyssey - A journey across oceans and seas and the return home*". Keynote talk; overview of my professional journey, VLIZ Marine Science Day (4 March 2021, Ostend, Belgium). Video (talk starts at minute 10, followed by interview by Hetty Helsmoortel), [Presentation Slides]
5. Interview with Iodysséus Science and Sea on poleward expansion of temperate phytoplankton to the Arctic, published in Global Change Biology Journal, 1 August 2018 (Nice, France, in French).
6. Pitch-talk of the Marie Sklodowska-Curie WhiteShift project at the European Researcher's Night, Marie Curie 100 000th fellow Award Ceremony (26 September 2017, Brussels, Belgium).
7. Participation to the Fête de la Science at the Observatoire Océanologique de Villefranche (France). Pourquoi la mer est-elle azur à la Côte d'Azur? Expériences optiques (14-15 October 2017).
8. Participation to the Medites Project for the promotion of scientific culture to youth in France. Séance métiers scientifiques, Laboratoire d'Océanographie de Villefranche, France, 27 April 2017.
9. Talk on the Impact of Climate Change on the Arctic Ocean, co-presented with Céline Dimier and Joséphine Ras (LOV, Sorbonne Université). Social Center of Carros, France, 1 April 2017.
10. Participation to the **documentary film "Arctic Bloom"** to increase awareness of the Arctic Ocean with the general public, May 2015 (Parafilms production, link to trailer, link to documentary on IMDb).
11. Contributions to the GreenEdge project **project blog**: Light and life beneath sea ice: the IcePRO instrument, Measuring light scattering and absorption properties of the ice-covered water column, May 2015.
12. Three first author papers featured in newsletters of the IOCCG (September 2009, August 2012, and August 2016), and in Knack magazine in February 2012

PUBLICATIONS

Peer-reviewed journal articles

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29 peer-reviewed journal publications (A1), GoogleScholar: h-index: 23; i10-index: 29; total citations: 2402.

1. Guinaldo, T. and **Neukermans, G.**: Compounded effects of long-term warming and the exceptional 2023 marine heatwave on North Atlantic coccolithophore bloom dynamics, Ocean Sci., 22, 145–166, https://doi.org/10.5194/os-22-145-2026, 2026.
2. Boyd, P., Arrigo, K., Ardyna, M., Cordova, A., Halfter, S., Huckstadt, L., Lannuzel, D., **Neukermans, G.**, Novaglio, C., Shadwick, E., Swart, S., Thomalla, S (2024). The role of biota in the Southern Ocean Carbon Cycle. Nature Reviews Earth and Environment, doi:10.1038/s43017-024-00531-3.
3. Ho, D. T., Bopp, L., Palter, J. B., Long, M. C., Boyd, P. W., **Neukermans, G. ,** and Bach, L. T. (2023). Monitoring, reporting, and verification for ocean alkalinity enhancement, in: *Guide to Best Practices in Ocean Alkalinity Enhancement Research*, edited by: Oschlies, A., Stevenson, A., Bach, L. T., Fennel, K., Rickaby, R. E. M., Satterfield, T., Webb, R., and Gattuso, J.-P. *Copernicus Publications, State Planet*, 2-oae2023, 12.
4. Terrats, L., Claustre, H., Briggs, N., Poteau, A., Briat, B., Lacour, L., Mangin, A., and **G. Neukermans.** BioGeoChemical-Argo floats reveal stark latitudinal gradient in deep carbon flux by phytoplankton community composition. Global Biogeochemical Cycles, GBC21487.
5. **Neukermans, G.**, Bach, L. T., Butterley, A., Sun, Q., Claustre, H., and G.R. Fournier. The open ocean carbonate pump: current quantitative and mechanistic understanding based on remote sensing and in situ observations, observational gaps and future developments. Earth Science Reviews, 239, 104359, doi.org/10.1016/j.earscirev.2023.104359.
6. Terrats, L., Claustre, H., Cornec, M., Mangin, A., **Neukermans, G.** (2020). Detection of coccolithophore blooms with BioGeoChemical-Argo floats. Geophysical Research Letters, 47, e2020GL090559, doi: 10.1029/2020GL090559

7. Massicotte, P., Amiraux, R., Amyot, M. P., …., and Babin, M. (2019). Green Edge ice camp campaigns: understanding the processes controlling the under-ice Arctic phytoplankton spring bloom. Earth System Science Data. doi: 10.5194/essd-2019-160.
8. Bellacicco, M., Cornec, M., Organelli, E., Brewin, R. J. W., **Neukermans, G.,** Volpe, G., Barbieux, M., Poteau, A., Schmechtig, C., D'Ortenzio, F., Marullo, S., Claustre, H., and Pitarch, J. (2019). Global Variability of Optical Backscattering by Non-algal particles From a Biogeochemical-Argo Data Set. *Geophysical Research Letters*. doi: 10.1029/2019GL084078.
9. **Neukermans, G.**, Harmel, T., Gali, M., Rudorff, N., Chowdhary, J., Dubovik, O., Hostetler, C., Hu, Y., Jamet, C., Knobelspiesse, K., Lehahn, Y., Litvinov, P., Sayer, A. M., Ward, B., Boss, E., Koren, I and Miller, L. (2018b). Harnessing remote sensing to address critical science questions on ocean-atmosphere interactions. *Elementa: Science of the Anthropocene,* 6(1):71, doi: 10.1525/elementa.331 (*Authors contributed equally)
10. **Neukermans, G**. and Fournier, G. (2018). Optical modeling of spectral backscattering and remote sensing reflectance from *Emiliania huxleyi* blooms. *Frontiers in Marine Science,* 5:146, doi: 10.3389/fmars.2018.00146.
11. **Neukermans, G.**, Oziel, L., and Babin, M. (2018a). Increased intrusion of warming Atlantic waters leads to rapid expansion of temperate phytoplankton in the Arctic. *Global Change Biology,* 24:2545-2553, doi: 10.1111/gcb.14075,
12. Fournier, G. and **Neukermans, G**. (2017). An analytical model for light backscattering by coccoliths and coccospheres of *Emiliania huxleyi*. Optics Express (25)13:14996-15009, doi: 10.1364/OE.25.014996.
13. Oziel, L., **Neukermans, G.**, Ardyna, M., Lancelot, C., Tison, J.-L., Wassmann, P., Sirven, J., Ruiz-Pino, D., and Gascard, J. C. (2017). Role for Atlantic inflows and sea ice loss on shifting phytoplankton blooms in the Barents Sea. *Journal of Geophysical Research Oceans*, 122, 5121–5139, doi: 10.1002/2016JC012582.
14. Reynolds, R. A., Stramski, D. and **Neukermans, G**. (2016) Optical backscattering by particles in Arctic seawater and relationships to particle mass concentration, size distribution, and bulk composition. *Limnology and Oceanography* 61, 1869–1890*,* doi:10.1002/lno.10341. IF=3.4.
15. **Neukermans, G.**, Reynolds, R. A., and Stramski, D. (2016). Optical classification and characterization of marine particle assemblages within the western Arctic Ocean. *Limnology and Oceanography,* 61, 1472–1494, doi:10.1002/lno.10316.
16. McKee, D., Röttgers R., **Neukermans, G.**, Calzado, V.S., Trees, C., Ampolo-Rella, M., Neil C., and Cunningham, A. (2014). Impact of measurement uncertainties on determination of chlorophyll-specific absorption coefficient for marine phytoplankton. *Journal of Geophysical Research Oceans* 119, 9013–9025. doi:10.1002/2014JC009909.
17. **Neukermans, G.**, Reynolds, R. A., and Stramski, D. (2014). Contrasting inherent optical properties and particle characteristics between an under-ice phytoplankton bloom and open water in the Chukchi Sea. *Deep Sea Research II* 105:59-73. doi: 10.1016/j.dsr2.2014.03.014.
18. Di Nitto, D., **Neukermans, G.**, Koedam, N., Defever, H., Pattyn, F., Kairo, J. G., and Dahdouh-Guebas, F. (2014). Mangroves facing climate change: landward migration potential in response to projected scenarios of sea level rise. *Biogeosciences* 11:857-871. doi: 10.5194/bg-11-857-2014.
19. Ruddick, K. G., **Neukermans, G.**, Vanhellemont, Q., and Jolivet, D. (2013). Challenges and opportunities for geostationary ocean colour remote sensing of regional seas: a review of recent results. *Remote Sensing of Environment*. doi: 10.1016/j.rse.2013.07.039.
20. Vanhellemont, Q., **Neukermans, G.**, and Ruddick, K. G. (2013). Synergy between polar-orbiting and geostationary sensors: Remote sensing of the ocean at high spatial and high temporal resolution. *Remote Sensing of Environment*. doi: 10.1016/j.rse.2013.03.035.
21. **Neukermans, G.**, Loisel, H., Meriaux, X., Astoreca, R., and McKee, D. (2012a). In situ variability of mass-specific beam attenuation and backscattering of marine particles with respect to particle size, density, and composition. *Limnology and Oceanography* 57(1): 124-144. doi: 10.4319/lo.2011.57.1.0124.
22. **Neukermans, G.**, Ruddick, K. G., and Greenwood, N. (2012b). Diurnal variability of turbidity and light attenuation in the southern North Sea from the SEVIRI geostationary sensor. *Remote Sensing of Environment* 124: 564-580. doi: 10.1016/j.rse.2012.06.003.
23. **Neukermans, G.**, Ruddick, K., Loisel, H., and Roose, P. (2012c). Optimization and quality control of suspended particulate matter concentration measurement using turbidity measurements. *Limnology and Oceanography Methods* 10: 1011-1023. doi: 10.4319/lom.2012.10.1011.

24. Ruddick, K. G., Vanhellemont, Q., Yan, J., **Neukermans, G.**, Wei, G., and Shang, S. (2012). Variability of suspended particulate matter in the Bohai Sea from the Geostationary Ocean Imager (GOCI). *Ocean Science Journal* 47(3): 331-345. doi: 10.1007/s12601-012-0032-4.
25. Vantrepotte, V., Loisel, H., Mériaux, X., **Neukermans, G.**, Dessailly, D., Jamet, C., Gensac, E., and Gardel, A. (2011). Seasonal and inter-annual (2002-2010) variability of the suspended particulate matter as retrieved from satellite ocean color sensor over the French Guiana coastal waters. *Journal of Coastal Research, Special Issue* 64: 1750-1754.
26. **Neukermans, G.**, Ruddick, K., Bernard, E., Ramon, D., Nechad, B., and Deschamps, P. Y. (2009). Mapping total suspended matter from geostationary satellites: a feasibility study with SEVIRI in the Southern North Sea. *Optics Express* 17(16): 14029-14052.
27. Obade, P., Koedam, N., Soetaert, K., **Neukermans, G.**, Bogaert, J., Nyssen, E., Van Nedervelde, F., Berger, U., and Dahdouh-Guebas, F. (2009). Impact of anthropogenic disturbance on a mangrove forest assessed by a 1D-cellular automaton model using Lotka-Volterra type competition. *International Journal of Design & Nature and Ecodynamics* 3(4): 296–320.
28. Mohamed, M. O. S., **Neukermans, G.**, Kairo, J. G., Dahdouh-Guebas, F., and Koedam, N. (2008). Mangrove forests in a peri-urban setting: the case of Mombasa (Kenya). *Wetlands Ecology and Management* 17(3): 243-255. doi: 10.1007/s11273-008-9104-8.
29. **Neukermans, G.**, Dahdouh-Guebas, F., Kairo, J. G., and Koedam, N. (2008). Mangrove species and stand mapping in Gazi Bay (Kenya) using Quickbird satellite imagery. *Journal of Spatial Science* 53(1): 75-86.

Other publications

1. von Schuckmann, K., Moreira, L., Grégoire, M., Marcos, M., Staneva, J., Brasseur, P., Garric, G., Lionello, P., Karstensen, J., and Neukermans, G. (Eds.): 8th edition of the **Copernicus Ocean State Report** (OSR8), Copernicus Publications, State Planet, 4-osr8, https://doi.org/10.5194/sp-4-osr8, 2024.
2. Heymans, S.J., Gattuso, J.P., Hicks, N., Neukermans, G., Landschützer, P. , Pörtner, H.O. Blue Carbon: Challenges and opportunities to mitigate the climate and biodiversity crises (2023). European Marine Board **Policy Brief** N° 11, doi: https://doi.org/10.5281/zenodo.8314215. ISSN: 0778-3590 ISBN: 9789464206203
3. Neukermans, G. and Fournier, G. R. (2022). "A method to produce a matched pair of polarizing filters and a method and apparatus to determine the concentration of birefringent particles using a pair of polarizing filters", **International Patent WO/2022/002939**.
4. Terrats, L., Claustre, H., Cornec, M., Mangin, A., Neukermans, G. (2020). BioGeoChemical-Argo float data complemented with ocean colour satellite matchups of variables related to coccolithophore blooms. SEANOE. https://doi.org/10.17882/76521 (**dataset**)

Book contributions

1. Melin, F., Boss, E., Brewin, R.J.W., Franz, B., Frouin, R., Hu, C., Jay, S., Kobayashi, H., Lamguin, N., McKinna, L., Neukermans, G., and P.J. Werdell. Uncertainty estimates (2019). In: Mélin, F. and Doerffer, R. (Eds.), Uncertainties in Ocean Colour Remote Sensing, International Ocean Colour Coordinating Group (IOCCG) report n° 18, Dartmouth, Canada.
2. Melin, F., Bulgarelli, B., Doerffer, R., Franz, B., Hu, C., Kwiatkowska, E., Neukermans, G., Wang, M., and P.J. Werdell (2019). Sources of Uncertainties. In: Mélin, F. and Doerffer, R. (Eds.), Uncertainties in Ocean Colour Remote Sensing, International Ocean Colour Coordinating Group (IOCCG) report n° 18, Dartmouth, Canada.
3. Neukermans, G. and Koedam, N. (2014). Saco da Inhaca mangrove vegetation mapping and change detection using very high resolution satellite imagery and historic aerial photography. In: S. Bandeira , and J. Paula (Eds.), The Maputo Bay Ecosystem, WIOMSA, Zanzibar Town, pp. 131-134.
4. Neukermans, G. and Ruddick, K. G. (2012). Mapping Total Suspended Matter from geostationary satellites: an example from SEVIRI on Meteosat Second Generation. In: Antoine, D. (Ed), Ocean-Colour Observations from a Geostationary Orbit, IOCCG report n° 12.