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Bernd Krock

Nationality: German

Affiliation: Alfred Wegener Institute-Helmholtz Centre for Polar and Marine Research, Am Handelshafen12, 27570 Bremerhaven, Germany; Ph:+49-471-4831-2055; E-mail: bernd.krock@awi.de

Education and professional career:

2005-present Senior Scientist, Ecological Chemistry, Alfred Wegener Institute, Bremerhaven

1998-2005 Scientific engineer position at the MPI for Chemical Ecology in Jena

1993-1997 Research assistant at the University of Jena, PhD

1992-1993 Research assistant at the University of Stuttgart

1990-1992 Study of the Chinese language at the University of Ulm, graduation: intermediate test

1987-1991 Study at the University of Ulm, emphasis: analytical chemistry, graduation: diploma

1981-1986 Study of chemistry at the University of Konstanz

Research field: Thirty years of doctoral and post-doctoral experience in the field of analytical chemistry and the analysis of organic trace compounds. In the last twenty years specialization on secondary metabolites of plants/algae and ecologically relevant signalling compounds. In the recent years focus on the detection of algal toxins, including development of new detection techniques, implementation of advanced LC-MS/MS methods on-board ship and search and discovery of new algal toxins as well as their producing organisms. Currently working as senior scientist at the Alfred-Wegener-Institute, Bremerhaven, in the section "Ecological Chemistry" in the working group "toxic marine protists".

Funding

2009-2013 ASTOX2: (multi-national research project reference: PBA/AF/08/001, title: Azaspiracids: Toxicological Evaluation, Test Methods and Identification of the Source Organism) financed by the European Regional Development Fund through the Irish National Development Plan 2007-2013.

2012-2014 BMBF 01DN12076, title: Interactions between biogeochemistry and plankton composition of the Argentine Continental Shelf

2012-2014 BMBF 01DN12102, title: Investigation of toxic algae in Antarctic coastal waters

2012-2015 FONDECYT (Chile): grant number 11121554, title: Function metagenomic of whole microbial communities associated to Antarctic marine invertebrates: diversity and bioactive compounds synthetic capabilities

2012-2017 The Danish Council for Strategic Research: title HABFISH

2013-2016	EU: (grant no. 318718I; FP7-people-2012-IRSES, title: IMCONet)
2013-2015	Danish Research Council - Nature and Universe: (Grant number: DFF - 1323-00258, title: Grazer-Phytoplankton Interactions in a Co-evolutionary Context in a changing Arctic Ecosystem (GPICA))
2015-2016	DAAD-MINCYT: (reference: PPP Argentinien, grant #: 57130105) Detection of phycotoxins in Monte Hermoso, Argentina
2015-2017	BMBF-MINCYT (reference: ARG14WTZ-020) RETCEL
2016-2018	FONCyT PICT-2014-3091 (Argentina): Dinámica planctónica y vectorización de ictotoxinas hacia consumidores de niveles superiores en tramas tróficas pelágicas de la región de El Rincón - Golfos Norpatagónicos
2017-2020	BMBF 03F0763A, title: RiPAZA
2017-2022	BMBF LAT16STRUC-039, title DynAMo

Expeditions

June/July 2007	RV Poseidon, Scotland-Norway
July 2008	RV Uthörn, Skagerrak
April/May 2009	RV Heincke, Scotland-Ireland (Chief scientist)
October 2010	RV Puerto Deseado, Southwest Atlantic, El Rincón
May/June 2011	RV Heincke, Faroe Islands
March/April 2012	RV Puerto Deseado, Southwest Atlantic, Austral Patagonia
July/August 2012	RV Merian, Greenland
Jan 2013	Escudero Station, KGI, Antarctica
December/January 2014	Dallmann Laboratory, KGI, Antarctica
April 2015	Arctic Station, Qeqertarsuaq, Greenland
July 2015	RV Heincke, Norway
December 2015	GARS/O'Higgins Station, Westantarctic Peninsula
June 2016	RV Uthörn, Limfjorden (Chief scientist)
December 2016	RV Puerto Deseado, Southwest Atlantic, Burdwood Bank
June/July 2017	RV Merian, Greenland (Dep. Chief Scientist)
July/August 2018	RV Heincke, Scotland-Ireland (Chief scientist)
Aproved	RV Sonne, Chilean Fjords

Supervised PhD students:

Since 2017:	Stephan Wietkamp (Bremen University, Germany)
Since 2017:	Joyce Nieva (Kiel University, Germany)
Since 2016:	Jana Geuer (Oldenburg University, Germany)
2014-2018:	Elena Fabro (Universidad de La Plata, Argentina)
2013-2017:	Valeria D'Agostino (Universidad Nacional del Sur, Argentina)
2008-2011:	Haiyan Ma (Bremen University, Germany)

Postgraduate courses:

- May 2018: Marine Biotoxins and their Origin, Medical University Varna, Bulgaria
- October 2017: Detección de ficotoxinas a través de cromatografía líquida acoplada con espectrometría de masas tandem (LC-MS/MS), IADO, Bahía Blanca, Argentina
- June 2016: Triple quadrupole mass spectrometry as a sophisticated tool for marine and polar science, University of Naples, Italy
- November 2014: Mircoalgas marinas nocivas: biología y toxicidad, Universidad Técnica Nacional-Facultad Regional Chubut, Pto. Madryn, Argentina

Publications: over 75 scientific papers in international journals and books with "peer review"; 44 book chapters, conference proceedings, etc.

10 selected publications

Krock, B., A. J. Busch, U. Tillmann, F. García-Camacho, A. Sánchez-Mirón, J. J. Gallardo-Rodríguez, L. López-Rosales, B. K. Andree, M. Fernández-Tejedor, M. Witt, D. A. Cembella and R. A. Place (2017). "LC-MS/MS Detection of Karlotoxins Reveals New Variants in Strains of the Marine Dinoflagellate *Karlodinium veneticum* from the Ebro Delta (NW Mediterranean)." *Marine Drugs* **15**(12): 1-20.

Fabro, E., G. O. Almandoz, M. Ferrario, U. John, U. Tillmann, K. Toebe, B. Krock and A. Cembella (2017). "Morphological, molecular, and toxin analysis of field populations of *Alexandrium* genus from the Argentine Sea." *Journal of Phycology* **53**(6): 1206-1222.

Tillmann, U., N. Trefault, B. Krock, G. Parada-Pozo, R. De la Iglesia and M. Vásquez (2017). "Identification of *Azadinium poporum* (Dinophyceae) in the Southeast Pacific: morphology, molecular phylogeny, and azaspiracid profile characterization." *Journal of Plankton Research* **39**(2): 350-367.

Durán-Riveroll, L. M., B. Krock, A. D. Cembella, J. Peralta-Cruz, J. J. Bustillos-Guzman and C. J. Band-Schmidt (2017). "Characterization of Benzoyl Saxitoxin Analogs from the Toxigenic Marine Dinoflagellate *Gymnodinium catenatum* by Hydrophilic Interaction Liquid Ion-Chromatography-Tandem Mass Spectrometry." *Natural Products Chemistry & Research* **5**(4): 275.

Krock, B., C. M. Borel, F. Barrera, U. Tillmann, E. Fabro, G. O. Almandoz, M. Ferrario, J. E. Garzón Cardona, B. P. Koch, C. Alonso and R. Lara (2015). "Analysis of the hydrographic conditions and cyst beds in the San Jorge Gulf, Argentina, that favor dinoflagellate population development including toxigenic species and their toxins." *Journal of Marine Systems* **148**(0): 86-100.

Krock, B., U. Tillmann, M. Witt and H. Gu (2014). "Azaspiracid variability of *Azadinium poporum* (Dinophyceae) from the China Sea." *Harmful Algae* **36**(0): 22-28.

Trefault, N., B. Krock, N. Delherbe, A. D. Cembella and M. Vásquez (2011). "Latitudinal transects in the southeastern Pacific Ocean reveal a diverse but patchy distribution of phycotoxins." *Toxicon* **58**(5): 389-397.

Dörr, F. A., V. Rodríguez, R. Molica, P. Henriksen, B. Krock and E. Pinto (2010). "Methods for detection of anatoxin-a(s) by liquid chromatography coupled to electrospray ionization-tandem mass spectrometry." *Toxicon* **55**(1): 92-99.

Krock, B., G. C. Pitcher, J. Ntuli and A. D. Cembella (2009). "Confirmed identification of gymnodimine in oysters from the west coast of South Africa by liquid chromatography-tandem mass spectrometry." *African Journal of Marine Science* **31**(1): 113-118.

Krock, B., U. Tillmann, U. John and A. D. Cembella (2008). "LC-MS-MS aboard ship: tandem mass spectrometry in the search for phycotoxins and novel toxigenic plankton from the North Sea." *Analytical and Bioanalytical Chemistry* **392**(5): 797-803.

Publications since 2011

1. Gai, F. F., et al. (2018). "Morphological, molecular and toxigenic characteristics of Namibian Pseudo-nitzschia species – including Pseudo-nitzschia bucculenta sp. nov." *Harmful Algae* **76**: 80-95.
2. Tillmann, U., Gottschling, M., Guinder, V. and Krock, B. (2018): Amphidoma parvula (Amphidomataceae), a new planktonic dinophyte from the Argentine Sea, *European Journal of Phycology*, **53** (1), pp. 14-28. doi: 10.1080/09670262.2017.1346205
3. Tillmann, U., Sánchez Ramires, S., Krock, B. and Bernales Jiménez, A. (2017): A bloom of Azadinium polongum in coastal waters off Peru, *Revista de Biología Marina y Oceanografía*, **52** (3), pp. 591-610.
4. Krock, B., A. J. Busch, U. Tillmann, F. García-Camacho, A. Sánchez-Mirón, J. J. Gallardo-Rodríguez, L. López-Rosales, B. K. Andree, M. Fernández-Tejedor, M. Witt, D. A. Cembella and R. A. Place (2017). "LC-MS/MS Detection of Karlotoxins Reveals New Variants in Strains of the Marine Dinoflagellate Karlodinium veneficum from the Ebro Delta (NW Mediterranean)." *Marine Drugs* **15**(12): 1-20.
5. Fabro, E., G. O. Almandoz, M. Ferrario, U. John, U. Tillmann, K. Toebe, B. Krock and A. Cembella (2017). "Morphological, molecular, and toxin analysis of field populations of Alexandrium genus from the Argentine Sea." *Journal of Phycology* **53**(6): 1206-1222.
6. Martens, H., Tillmann, U., Harju, K., Dell'Aversano, C., Tartaglione, L. and Krock, B. (2017): Toxin Variability Estimations of 68 *Alexandrium ostenfeldii* (Dinophyceae) Strains from The Netherlands Reveal a Novel Abundant Gymnodimine, *Microorganisms*, **5** (2). doi: 10.3390/microorganisms5020029
7. D'Agostino, V. C., M. Degradi, V. Sastre, N. Santinelli, B. Krock, T. Krohn, S. L. Dans and M. S. Hoffmeyer (2017). "Domoic acid in a marine pelagic food web: Exposure of southern right whales Eubalaena australis to domoic acid on the Península Valdés calving ground, Argentina." *Harmful Algae* **68**: 248-257.
8. Durán-Riveroll, L. M., B. Krock, A. D. Cembella, J. Peralta-Cruz, J. J. Bustillos-Guzman and C. J. Band-Schmidt (2017). "Characterization of Benzoyl Saxitoxin Analogs from the Toxigenic Marine Dinoflagellate Gymnodinium catenatum by Hydrophilic Interaction Liquid Ion-Chromatography-Tandem Mass Spectrometry." *Natural Products Chemistry & Research* **5**(4): 275.

9. Luo, Z. , **Krock, B.** , Mertens, K. N. , Nézan, E. , Chomérat, N. , Bilien, G. , Tillmann, U. and Gu, H. (2017): Adding new pieces to the *Azadinium* (Dinophyceae) diversity and biogeography puzzle: Non toxigenic *Azadinium zhuanum* sp. nov. from China, toxigenic *A. poporum* from the Mediterranean, and a non toxigenic *A. dalianense* from the French Atlantic , *Harmful Algae*, 66 , pp. 65 78 . doi: 10.1016/j.hal.2017.05.001
10. Brandenburg, K. M. , de Senerpont Domis, L. N. , Wohlrab, S. , **Krock, B.** , John, U. , van Scheppingen, Y. , van Donk, E. and Van de Waal, D. B. (2017): Combined physical, chemical and biological factors shape *Alexandrium ostenfeldii* blooms in the Netherlands , *Harmful Algae*, 63 , pp. 146 153 . doi: 10.1016/j.hal.2017.02.004
11. Barrera, F. , Lara, R. J. , Krock, B. , Garzón Cardona, J. E. , Fabro, E. and Koch, B. P. (2017): Factors influencing the characteristics and distribution of surface organic matter in the Pacific Atlantic connection , *Journal of Marine Systems*, 175 , pp. 36 45 . doi: 10.1016/j.jmarsys.2017.07.004
12. Luo, Z. , Zhang, H. , **Krock, B.** , Lu, S. , Yang, W. and Gu, H. (2017): Morphology, molecular phylogeny and okadaic acid production of epibenthic *Prorocentrum* (Dinophyceae) species from the northern South China Sea , *Algal Research*, 22 , pp. 14 30 . doi: 10.1016/j.algal.2016.11.020
13. Elferink, S. , Neuhaus, S. , Wohlrab, S. , Toebe, K. , Voß, D. , Gottschling, M. , Lundholm, N. , **Krock, B.** , Koch, B. , Zielinski, O. , Cembella, A. D. and John, U. (2017): Molecular diversity patterns among various phytoplankton size fractions in West Greenland in late summer , *Deep Sea Research Part I: Oceanographic Research Papers*, 121 , pp. 54 69 . doi: 10.1016/j.dsr.2016.11.002
14. Tillmann, U. , Trefault, N. , **Krock, B.** , Parada-Pozo, G.; De la Iglesia, R., Vásquez, M., (2017) Identification of *Azadinium poporum* (Dinophyceae) in the Southeast Pacific: morphology, molecular phylogeny, and azaspiracid profile characterization. *J. Plankton Res.* 39 (2), 350-367.
15. Tillmann, U. , Jaén, D. , Fernández, L. , Gottschling, M. , Witt, M. , Blanco, J. and **Krock, B.** (2017): *Amphidoma languida* (Amphidomatacea, Dinophyceae) with a novel azaspiracid toxin profile identified as the cause of molluscan contamination at the Atlantic coast of southern Spain, *Harmful Algae*, 62 , pp. 113-126 . doi: 10.1016/j.hal.2016.12.001
16. Rossi, R., Dell'Aversano, C., **Krock, B.**, Ciminiello, P., Percopo, I., Tillmann, U., Soprano, V. and Zingone, A. (2017): Mediterranean *Azadinium dexteroporum* (Dinophyceae) produces six novel azaspiracids and azaspiracid-35: a structural study by a multi-platform mass spectrometry approach, *Analytical and Bioanalytical Chemistry*, 409 (4), pp. 1121-1134. doi: 10.1007/s00216-016-0037-4
17. Almandoz, G. O. , Fabro, E. , Ferrario, M. E. , Tillmann, U. , Cembella, A. and **Krock, B.** (2017): Species occurrence of the potentially toxigenic diatom genus *Pseudo-nitzschia* and the associated neurotoxin domoic acid in the Argentine Sea , *Harmful Algae*, 63 , pp. 45-55 . doi: 10.1016/j.hal.2017.01.007
18. Xu, J. , Hansen, P. J. , Nielsen, L. T. , **Krock, B.** , Tillmann, U. and Kiorboe, T. (2017): Distinctly different behavioral responses of a copepod, *Temora longicornis*, to different strains of toxic dinoflagellates, *Alexandrium* spp. , *Harmful Algae*, 62 , pp. 1-9 . doi: 10.1016/j.hal.2016.11.020

19. Fabro, E. , Almandoz, G. O. , Ferrario, M. E. , Tillmann, U. , Cembella, A. and **Krock, B.** (2016): Distribution of Dinophysis species and their association with lipophilic phycotoxins in plankton from the Argentine Sea , Harmful Algae, 59 , pp. 31-41 . doi: 10.1016/j.hal.2016.09.001
20. Busch, J. A. , Andrée, K. , Diogène, J. , Fernández-Tejedor, M. , Töbe, K. , John, U. , **Krock, B.** , Tillmann, U. and Cembella, A. (2016): Toxigenic algae and associated phycotoxins in two coastal embayments in the Ebro Delta (NW Mediterranean) , Harmful Algae, 55 , pp. 191-201 . doi: 10.1016/j.hal.2016.02.012
21. Nielsen, L. T., Hansen, P. J., **Krock, B.** and Vismann, B. (2016): Accumulation, transformation and breakdown of DSP toxins from the toxic dinoflagellate Dinophysis acuta in blue mussels, Mytilus edulis, Toxicon, 117, pp. 84-93. doi: 10.1016/j.toxicon.2016.03.021
22. Harju, K. , Koskela, H. , Kremp, A. , Suikkanen, S. , de la Iglesia, P. , Miles, C. O. , **Krock, B.** and Vanninen, P. (2016): Identification of gymnodimine D and presence of gymnodimine variants in the dinoflagellate Alexandrium ostenfeldii from the Baltic Sea , Toxicon, 112 , pp. 68-76 . doi: 10.1016/j.toxicon.2016.01.064
23. Luo, Z., **Krock, B.**, Mertens, K. N., Price, A. M., Turner, R. E., Rabalais, N. N. and Gu, H. (2016): Morphology, molecular phylogeny and azaspiracid profile of Azadinium poporum (Dinophyceae) from the Gulf of Mexico, Harmful Algae, 55, pp. 56-65. doi: 10.1016/j.hal.2016.02.006
24. Tillmann, U. , Borel, C. M. , Barrera, F. , Lara, R. J. , **Krock, B.** , Almandoz, G. O. , Witt, M. and Trefault, N. (2016): Azadinium poporum from the Argentine Continental Shelf, Southwestern Atlantic, produces azaspiracid-2 and azaspiracid-2 phosphate , Harmful Algae, 51 , pp. 40-55 . doi: 10.1016/j.hal.2015.11.001
25. Tillmann, U., **Krock, B.**, Alpermann, T. and Cembella, A. (2016): Bioactive compounds of marine dinoflagellate isolates from western Greenland and their phylogenetic association within the genus Alexandrium, Harmful Algae, 51, pp. 67-80. doi: 10.1016/j.hal.2015.11.004
26. Sala-Pérez, M., Alpermann, T., **Krock, B.** and Tillmann, U. (2016): Growth and bioactive secondary metabolites of arctic Protoceratium reticulatum (Dinophyceae) , Harmful Algae, 55 , pp. 85-96 . doi: 10.1016/j.hal.2016.02.004
27. Martens, H. , van de Waal, D. , Brandenburg, K. M. , **Krock, B.** and Tillmann, U. (2016): Salinity effects on growth and toxin production in an Alexandrium ostenfeldii (Dinophyceae) isolate from The Netherlands , Journal of Plankton Research, 38 (5), pp. 1302-1316 . doi: 10.1093/plankt/fbw053

28. Giannuzzi, L. , **Krock, B.** , Crettaz Minaglia, M. C. , Rosso, L. , Houghton, C. , Sedan, D. , Malanga, G. , Espinoza, M. , Andrinolo, D. and Hernando, M. (2016): Growth, toxin production, active oxygen species and catalase activity of *Microcystis aeruginosa* (Cyanophyceae) exposed to temperature stress , *Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology*, 189 , pp. 22-30 . doi: 10.1016/j.cbpc.2016.07.001

29. Hernando, M., Houghton, C., Giannuzzi, L., **Krock, B.**, Andrinolo, D. and Malanga, G. (2016): Oxidative stress in *Microcystis aeruginosa* as a consequence of global climate change, *Biocell*, 40 (1), pp. 23-25.

30. Elferink, S. , Neuhaus, S. , Wohlrab, S. , Toebe, K. , Voß, D. , Gottschling, M. , Lundholm, N. , **Krock, B.** , Koch, B. , Zielinski, O. , Cembella, A. and John, U. (2016): Molecular diversity patterns among various phytoplankton size-fractions in West Greenland in late summer , *Deep-Sea Research Part I-Oceanographic Research Papers* . doi: 10.1016/j.dsr.2016.11.002

31. Gracia Villalobos, L. , Santinelli, N. , Sastre, V. , **Krock, B.** and Esteves, J. L. (2015): Dinophysis Species Associated with Diarrhetic Shellfish Poisoning Episodes in North Patagonian Gulfs (Chubut, Argentina) , *Journal of Shellfish Research*, 34 (3), pp. 1141-1149 . doi: 10.2983/035.034.0339

32. **Krock, B.** , Tillmann, U. , Potvin, É. , Jeong, H. J. , Drebing, W. , Kilcoyne, J. , Al-Jorani, A. , Twiner, M. J. , Göthel, Q. and Köck, M. (2015): Structure Elucidation and in Vitro Toxicity of New Azaspiracids Isolated from the Marine Dinoflagellate *Azadinium poporum* , *Marine Drugs*, 13 (11), pp. 6687-6702 . doi: 10.3390/md13116687

33. Van de Waal, D., Tillmann, U., Martens, H., **Krock, B.**, Van Scheppeningen, Y. and John, U. (2015): Characterization of multiple isolates from an *Alexandrium ostenfeldii* bloom in The Netherlands, *Harmful Algae*, 49, pp. 94-104. doi: 10.1016/j.hal.2015.08.002

34. **Krock, B.** , Borel, C. M. , Barrera, F. , Tillmann, U. , Fabro, E. , Almandoz, G. O. , Ferrario, M. E. , Garzón Cardona, J. E. , Koch, B. P. , Alonso, C. and Lara, R. J. (2015): Analysis of the hydrographic conditions and cyst beds in the San Jorge Gulf, Argentina, that favor dinoflagellate population development including toxigenic species and their toxins , *Journal of Marine Systems*, 148 , pp. 86-100 . doi: 10.1016/j.jmarsys.2015.01.006

35. Hardardottir, S., Pančić, M., Tammilehto, A., **Krock, B.**, Møller, E. F., Nielsen, T. G. and Lundholm, N. (2015): Dangerous Relations in the Arctic Marine Food Web: Interactions between Toxin Producing *Pseudo-nitzschia* Diatoms and *Calanus* Copepodites , *Marine Drugs*, 13 , pp. 3809-3835 . doi: 10.3390/md13063809

36. Akselman, R. , **Krock, B.** , Alpermann, T. J. , Tillmann, U. , Borel, C. M. , Almandoz, G. O. and Ferrario, M. E. (2015): *Protoceratium reticulatum* (Dinophyceae) in the austral Southwestern Atlantic and the first report on YTX-production in shelf waters of Argentina , *Harmful Algae*, 45 , pp. 40-52 . doi: 10.1016/j.hal.2015.03.001

37. Ingraham-Rivera, G. , Espinosa, F. and **Krock, B.** (2015): Presence of Gamma-Aminobutyric Acid (Gaba) in the Pedal Mucus of the Critically Endangered Species *Patella ferruginea* , *Journal of Chemical Ecology*, 41 , pp. 501-504 . doi: 10.1007/s10886-015-0579-5

38. Tammilehto, A., Nielsen, T. G., **Krock, B.**, Møller, E. F. and Lundholm, N. (2015): Induction of domoic acid production in the toxic diatom *Pseudo-nitzschia seriata* by calanoid copepods, *Aquatic Toxicology*, 159, pp. 52-61. doi: 10.1016/j.aquatox.2014.11.026

39. Fabro, E., Almandoz, G. O., Ferrario, M. E., Hoffmeyer, M. S., Pettigrosso, R. E., Uibrig, R. and **Krock, B.** (2015): Co-occurrence of *Dinophysis tripos* and pectenotoxins in Argentinean shelf waters, *Harmful Algae*, 42, pp. 25-33. doi: 10.1016/j.hal.2014.12.005

40. Tillmann, U., Gottschling, M. , Nézan, E. and **Krock, B.** (2015): First record of *Amphidoma languida* and *Azadinium dexteroporum* (Amphidomataceae, Dinophyceae) from the Irminger Sea off Iceland , *Marine Biodiversity Records*, 8 (e142), pp. 1-11 . doi: 10.1017/S1755267215001128

41. Bustillos-Guzmán, J. J. , Band-Schmidt, C. J. , Durán-Riveroll, L. M. , Hernández-Sandoval , F. E. , López-Cortés , D. J. , Núñez-Vásquez, E. J. , Cembella, A. and **Krock, B.** (2015): Paralytic toxin profile of the marine dinoflagellate *Gymnodinium catenatum* Graham from the Mexican Pacific as revealed by LC-MS/MS , *Food Additives & Contaminants: Part A*, 32 (3), pp. 381-394 . doi: 10.1080/19440049.2014.1000978

42. Luckas, B. , Erler, K. and **Krock, B.** (2015): Analysis of Marine Biotoxins using LC-MS/MS / D. Stengel and S. Connan (editors) , In: *Natural Products from Marine Algae - Methods and Protocols*, *Methods in Molecular Biology*, New York, Humana Press, 21 p., ISBN: 978-1-4939-2683-1 .

43. Mattei, C., Vetter, I., Eisenblätter, A., **Krock, B.**, Ebbecke, M., Desel, H. and Zimmermann, K. (2014): Ciguatera fish poisoning: A first epidemic in Germany highlights an increasing risk for European countries, *Toxicon*, 91, pp. 76-83. doi: 10.1016/j.toxicon.2014.10.016

44. **Krock, B.**, Tillmann, U., Cembella, A. D., Lovrich, G. A. and Borel, C. M. (2014): Comparison of phycotoxin composition and distribution in toxigenic plankton from the north and south Atlantic / C. McLeod, H. Farrell, G. Hallegraeff and A. Zammit (editors), *Proceedings of the 9th International Conference on Molluscan Shellfish Safety*, Sydney, 17-22 March 2013, Rome, FAO, 249 p., ISBN: 978-0-646-92993-4.

45. Tillmann, U., Kremp, A., Tahvanainen, P. and Krock, B. (2014): Characterization of spirolide producing *Alexandrium ostenfeldii* (Dinophyceae) from the western Arctic, *Harmful Algae*, 39, pp. 259-270. doi: 10.1016/j.hal.2014.08.008
46. Tillmann, U., Gottschling, M., Nézan, E., Krock, B. and Bilien, G. (2014): Morphological and molecular characterization of three new *Azadinium* species (Amphidomataceae, Dinophyceae) from the Irminger Sea, *Protist*, 165 (4), pp. 417-444. doi: 10.1016/j.protis.2014.04.004
47. Krock, B., Tillmann, U., Witt, M. and Gu, H. (2014): Azaspiracid variability of *Azadinium poporum* (Dinophyceae) from the China Sea, *Harmful Algae*, 36, pp. 22-28. doi: 10.1016/j.hal.2014.04.012
48. Tillmann, U., Krock, B. and Taylor, B. (2014): *Azadinium caudatum* var. *margalefii*, a poorly known member of the toxigenic genus *Azadinium* (Dinophyceae), *Marine Biology Research*, 10 (10), pp. 941-956. doi: 10.1080/17451000.2013.866252
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