

Bibliográfia

1. Lei M, Zhang L, Lei J, Zong L, Li J, Wu Z, et al. Overview of Emerging Contaminants and Associated Human Health Effects. *BioMed Research International*. 2015;2015:404796.
2. Lockwood S, Saidi N, Morgan V. Options for a strategic approach to pharmaceuticals in the environment. European Commission; 2016.
3. Wilkinson J, Hooda PS, Barker J, Barton S, Swinden J. Occurrence, fate and transformation of emerging contaminants in water: An overarching review of the field. *Environ Pollut*. 2017;231(Pt 1):954–970.
4. Calvo-Flores FG, Isac-García J, Dobado JA. Emerging Pollutants Origin, Structure and Properties. Germany: Wiley-VCH; 2018.
5. Scudellari M. Drugging the Environment. *The Scientist*. 2015.
6. Richmond EK, Grace MR, Kelly JJ, Reisinger AJ, Rosi EJ, Walters DM. Pharmaceuticals and personal care products (PPCPs) are ecological disrupting compounds (EcoDC). *Elem Sci Anth*. 2017;5:66.
7. Bean TG, Boxall ABA, Lane J, Herborn KA, Pietravalle S, Arnold KE. Behavioural and physiological responses of birds to environmentally relevant concentrations of an antidepressant. *Philosophical transactions of the Royal Society of London Series B, Biological Sciences*. 2014;369(1656):20130575.
8. Oaks JL, Gilbert M, Virani MZ, Watson RT, Meteyer CU, Rideout BA, et al. Diclofenac residues as the cause of vulture population decline in Pakistan. *Nature*. 2004;427:630.
9. Verlicchi P, Galletti A, Petrovic M, Barceló D. Hospital effluents as a source of emerging pollutants: An overview of micropollutants and sustainable treatment options. *Journal of Hydrology*. 2010;389(3):416–428.
10. Knisz J, Vadkerti E, Goda Z, Salamon E, Mátrai I, Karches T, et al. Szerves mikroszennyezők a környezetben. Knisz J szerkesztő. Budapest: Nemzeti Közszolgálati Egyetem; 2020.
11. Malmborg J, Magner J. Pharmaceutical residues in sewage sludge: effect of sanitization and anaerobic digestion. *Journal of Environmental Management*. 2015;153:1–10.
12. Gall H, Mina O. Coping with Emerging Contaminants in Potable Water Sources. 2014.
13. Maasz G, Zrinyi Z, Takacs P, Lovas S, Fodor I, Kiss T, Pirger Zs. Complex molecular changes induced by chronic progestogens exposure in roach, *Rutilus rutilus*. *Ecotoxicology and Environmental Safety*. 2017;139:9–17.
14. Zrinyi Z, Maasz G, Zhang L, Vertes A, Lovas S, Kiss T, Elekes K, Pirger Zs. Effect of progesterone and its synthetic analogs on reproduction and embryonic development of a freshwater invertebrate model. *Aquatic Toxicology*. 2017;190:94–103.
15. Balmford A. Pollution, Politics, and Vultures. *Science (New York, NY)*. 2013;339(6120):653–654.
16. Capaldo A, Gay F, Lepretti M, Paolella G, Martucciello S, Lionetti L, et al. Effects of environmental cocaine concentrations on the skeletal muscle of the European eel (*Anguilla anguilla*). *The Science of the Total Environment*. 2018;640–641:862–873.
17. Halden RU. On the Need and Speed of Regulating Triclosan and Triclocarban in the United States. *Environmental Science and Technology*. 2014;48(7):3603–3611.
18. Weatherly LM, Gosse JA. Triclosan exposure, transformation, and human health effects. *Journal of Toxicology and Environmental Health Part B, Critical Reviews*. 2017;20(8):447–469.
19. Montes-Grajales D, Fennix-Agudelo M, Miranda-Castro W. Occurrence of personal care products as emerging chemicals of concern in water resources: A review. *The Science of the Total Environment*. 2017;595:601–614.

20. Afify A, Betz JF, Riabinina O, Lahondère C, Potter CJ. Commonly Used Insect Repellents Hide Human Odors from *Anopheles* Mosquitoes. *Current Biology*. 2019;29(21):3669–3680.e5.
21. European Commission. Endocrine disruptors 2019 [cited 2019 Nov]. Available from: https://ec.europa.eu/environment/chemicals/endocrine/index_en.htm
22. Colgate. Colgate Total® Toothpaste with Triclosan [cited 2019 Nov]. Available from: www.colgate.com/en-gb/oral-health/basics/selecting-dental-products/colgate-total-triclosan
23. Singer AC, Shaw H, Rhodes V, Hart A. Review of Antimicrobial Resistance in the Environment and Its Relevance to Environmental Regulators. *Frontiers in Microbiology*. 2016;7:1728–.
24. Munita JM, Arias CA. Mechanisms of Antibiotic Resistance. *Microbiology Spectrum*. 2016;4(2).
25. Knisz J szerkesztő, Goda Zoltán, Karches Tamás, Mátrai Ildikó, Salamon Endre, Vadkerti Edit et al. Szerves mikroszennyezők a vizekben. Budapest: Nemzeti Közszolgálati Egyetem; 2020.
26. FutureLearn. Resistance through horizontal gene transfer [cited 2020 Jan]. Available from: www.futurelearn.com/
27. Sheridan A, Lenahan M, Condell O, Bonilla-Santiago R, Sergeant K, Renaut J, et al. Proteomic and phenotypic analysis of triclosan tolerant verocytotoxigenic *Escherichia coli* O157:H19. *Journal of Proteomics*. 2013;80:78–90.
28. Blanco P, Hernando-Amado S, Reales-Calderon JA, Corona F, Lira F, Alcalde-Rico M, et al. Bacterial Multidrug Efflux Pumps: Much More Than Antibiotic Resistance Determinants. *Microorganisms*. 2016;4(1):14.
29. Poole K. Efflux-mediated antimicrobial resistance. *The Journal of Antimicrobial Chemotherapy*. 2005;56(1):20–51.
30. Imran M, Das KR, Naik MM. Co-selection of multi-antibiotic resistance in bacterial pathogens in metal and microplastic contaminated environments: An emerging health threat. *Chemosphere*. 2019;215:846–857.
31. Morehead MS, Scarbrough C. Emergence of Global Antibiotic Resistance. *Primary Care*. 2018;45(3):467–484.
32. Winkworth CL. Antibiotic resistance genes in freshwater biofilms along a whole river. *J Water Health*. 2013;11(2):186–198.
33. Mao G, Song Y, Bartlam M, Wang Y. Long-Term Effects of Residual Chlorine on *Pseudomonas aeruginosa* in Simulated Drinking Water Fed With Low AOC Medium. *Frontiers in Microbiology*. 2018;9(879).
34. Karumathil DP, Yin H-B. Effect of Chlorine Exposure on the Survival and Antibiotic Gene Expression of Multidrug Resistant *Acinetobacter baumannii* in Water. Open Access Author Fund Awardees' Articles 22. 2014.
35. Barancheshme F, Munir M. Strategies to Combat Antibiotic Resistance in the Wastewater Treatment Plants. *Front Microbiol*. 2017;8:2603.
36. Domokos E, Némethy S, Kárpáti Á. Mezőgazdaság környezeti hatásai. Pannon Egyetem; 2012.
37. UN; F. Pesticide risk reduction. In: Nations; FaAOtU, editor. 2016.
38. Mahmood I, Imadi S, Shazadi K, Gul A, Hakeem K. Effects of Pesticides on Environment. 2015.
39. Iqbal M, Syed JH, Katsoyiannis A, Malik RN, Farooqi A, Butt A, et al. Legacy and emerging flame retardants (FRs) in the freshwater ecosystem: A review. *Environmental Research*. 2017;152:26–42.
40. Yadav I, Devi N. Pesticides Classification and Its Impact on Human and Environment. 2017. p. 140–158.
41. Jayaraj R, Megha P, Sreedev P. Organochlorine pesticides, their toxic effects on living organisms and their fate in the environment. *Interdiscip Toxicol*. 2016;9(3–4):90–100.

42. Mutiyar P, Mittal A, Pekdeger A. Status of organochlorine pesticides in the drinking water well-field located in the Delhi region of the flood plains of river Yamuna. *Drinking Water Engineering and Science Discussions*. 2011;4.
43. Oláh J, Rásá G, Princz P, Princz D. A klórrozott szénhidrogének és a peszticid származékok biológiai lebontása. *MASZESZ hírcsatorna*. 2019;2019(3):13–29.
44. INCHEM. Internationally Peer Reviewed Chemical Safety Information: WHO; [cited 2019 Okt]. Available from: www.inchem.org/
45. Li Z. A health-based regulatory chain framework to evaluate international pesticide groundwater regulations integrating soil and drinking water standards. *Environ Int*. 2018;121(Pt 2):1253–1278.
46. Schäfer RB, Van den Brink P, Liess M. Impacts of pesticides on freshwater ecosystems. 2011. p. 111–137.
47. Pérez-Lucas G, Vela N, El Aatik A, Navarro S. Environmental Risk of Groundwater Pollution by Pesticide Leaching through the Soil Profile. In: Laramendy M, Soloneski S editors. *Pesticides – Use and Misuse and Their Impact in the Environment*. 2019.
48. Vryzas Z. Pesticide fate in soil-sediment-water environment in relation to contamination preventing actions. *Current Opinion in Environmental Science and Health*. 2018;4:5–9.
49. Kurdi R. Vegyipari folyékony hulladékok. 2011.
50. Várhegyi Z. Hidasi klórbenzol szennyezés állapota. Drávától a Balatonig. 2010;II(2010garé):7.
51. Fenner K, Canonica S, Wackett LP, Elsner M. Evaluating Pesticide Degradation in the Environment: Blind Spots and Emerging Opportunities. *Science (New York, NY)*. 2013;341(6147):752–758.
52. WHO. *Pesticides. Children's Health and the Environment – Training modules and instructions for health care providers* World Health Organization; 2008.
53. 201/2001. (X. 25.) Korm. rendelet az ivóvíz minőségi követelményeiről és az ellenőrzés rendjéről. 2001.
54. Vighi M, Funari E. *Pesticide Risk in Groundwater*. CRC Press; 2019.
55. Auteri D, Arena M, Barmaz S, Ippolito A, Linguadoca A, Molnar T, et al. Neonicotinoids and bees: The case of the European regulatory risk assessment. *Science of the Total Environment*. 2017;579:966–971.
56. Wee SY, Aris AZ. Ecological risk estimation of organophosphorus pesticides in riverine ecosystems. *Chemosphere*. 2017;188:575–581.
57. International Programme on Chemical Safety. *Carbamate Pesticides: A General Introduction*. Geneva: ENSZ, WHO; 1986. Report No.: ISBN 92 4 154264 0.
58. Palmquist K, Salatas J, Fairbrother A. *Pyrethroid Insecticides: Use, Environmental Fate, and Ecotoxicology*. 2012.
59. Samsel A, Seneff S. Glyphosate, pathways to modern diseases II: Celiac sprue and gluten intolerance. *Interdiscip Toxicol*. 2013;6(4):159–184.
60. Mesnage R, Antoniou MN. Facts and Fallacies in the Debate on Glyphosate Toxicity. *Frontiers in Public Health*. 2017;5(316).
61. Tarazona JV, Court-Marques D, Tiramani M, Reich H, Pfeil R, Istace F, et al. Glyphosate toxicity and carcinogenicity: a review of the scientific basis of the European Union assessment and its differences with IARC. *Archives of Toxicology*. 2017;91(8):2723–2743.
62. NÉBIH. Kérdezz-felelek az élelmiszeradalékanyagokról. 2014 [cited May, 2019]. Available from: <https://portal.nebih.gov.hu>
63. Blekas G. *Food Additives: Classification, Uses and Regulation*. The Encyclopedia of Food and Health. Oxford: Academic Press, Elsevier; 2016.
64. Choudhary AK, Pretorius E. Revisiting the safety of aspartame. *Nutrition Reviews*. 2017;75(9):718–730.
65. Milinki É. *Ökotoxikológia és környezetvédelem*. Eszterházy Károly Főiskola; 2013.

66. Bassoli A, Merlini L. Sweeteners/Intensive. In: Caballero B, editor. Encyclopedia of Food Sciences and Nutrition (Second Edition). Oxford: Academic Press; 2003. p. 5688–5695.
67. Jorge K. Soft Drinks / Chemical Composition. In: Caballero B, editor. Encyclopedia of Food Sciences and Nutrition (Second Edition). Oxford: Academic Press; 2003. p. 5346–5352.
68. National Center for Biotechnology Information PubChem Database. Aspartame, CID=134601 [cited 2019 Okt]. Available from: <https://pubchem.ncbi.nlm.nih.gov/compound/Aspartame>
69. National Center for Biotechnology Information. Crystallose, CID=24181110: PubChem Database [cited 2019 Okt]. Available from: <https://pubchem.ncbi.nlm.nih.gov/compound/Crystallose>
70. Koob GF, Arends MA, Le Moal M. Chapter 7 – Nicotine. In: Koob GF, Arends MA, Le Moal M editors. Drugs, Addiction, and the Brain. San Diego: Academic Press; 2014. p. 221–259.
71. Davis RA, Curvali M. Chapter 14 – Determination of nicotine and its metabolites in biological fluids: in vivo studies. In: Gorrod JW, Jacob P editors. Analytical Determination of Nicotine and Related Compounds and their Metabolites. Amsterdam: Elsevier Science; 1999. p. 583–643.
72. Kahl S, Kleinstuber S, Nivala J, Van Afferden M, Reemtsma T. Emerging Biodegradation of the Previously Persistent Artificial Sweetener Acesulfame in Biological Wastewater Treatment. Environmental Science and Technology. 2018;52(5):2717–2725.
73. Maasz G, Mayer M, Zrinyi Z, Molnar E, Kuzma M, Fodor I, Pirger Zs, Takács P. Spatiotemporal variations of pharmacologically active compounds in surface waters of a summer holiday destination. Science of the Total Environment. 2019;677:545–555.
74. Li S, He B, Wang J, Liu J, Hu X. Risks of caffeine residues in the environment: Necessity for a targeted ecopharmacovigilance program. Chemosphere. 2020;243:125343.
75. Oropesa AL, Floro AM, Palma P. Toxic potential of the emerging contaminant nicotine to the aquatic ecosystem. Environmental Science and Pollution Research International. 2017;24(20):16605–16616.
76. Stuart M, Lapworth D, Crane E, Hart A. Review of risk from potential emerging contaminants in UK groundwater. Science of the Total Environment. 2012;416:1–21.
77. Trasande L, Shaffer RM, Sathyaranayana S. Food Additives and Child Health. Pediatrics. 2018;142(2):e20181410.
78. McBride DL. Safety Concerns About Food Additives and Children's Health. Journal of Pediatric Nursing. 2018.
79. Luo J, Zhang Q, Cao M, Wu L, Cao J, Fang F, et al. Ecotoxicity and environmental fates of newly recognized contaminants-artificial sweeteners: A review. Science of the Total Environment. 2019;653:1149–1160.
80. Lohner S, Toews I, Meerpohl JJ. Health outcomes of non-nutritive sweeteners: analysis of the research landscape. Nutrition Journal. 2017;16(1):55.
81. EU Science Hub. Acceptable daily intake (ADI) of sweeteners in the EU [cited 2020 Jan]. Available from: <https://ec.europa.eu/jrc/en/page/ss-table-7-acceptable-daily-intake-adi-sweeteners-eu-182968>
82. Jin Y, Wu S, Zeng Z, Fu Z. Effects of environmental pollutants on gut microbiota. Environmental Pollution. 2017;222:1–9.
83. Gillois K, Leveque M, Theodorou V, Robert H, Mercier-Bonin M. Mucus: An Underestimated Gut Target for Environmental Pollutants and Food Additives. Microorganisms. 2018;6(2).
84. Zabala I, Negreira N, Bizkarguenaga E, Prieto A, Covaci A, Zuloaga O. Screening and identification of per- and polyfluoroalkyl substances in microwave popcorn bags. Food Chemistry. 2017;230:497–506.
85. Zabala I, Bizkarguenaga E, Bilbao D, Etxebarria N, Prieto A, Zuloaga O. Fast and simple determination of perfluorinated compounds and their potential precursors in different packaging materials. Talanta. 2016;152:353–363.

86. Chemistry World. Denmark becomes first nation to outlaw fluorinated chemicals in food packaging [cited 2020 Jan]. Available from: www.chemistryworld.com/news/denmark-becomes-first-nation-to-outlaw-fluorinated-chemicals-in-food-packaging/3010952.article
87. Mao Z, Zheng XF, Zhang YQ, Tao XX, Li Y, Wang W. Occurrence and biodegradation of nonylphenol in the environment. *Int J Mol Sci.* 2012;13(1):491–505.
88. Jardak K, Drogui P, Daghrir R. Surfactants in aquatic and terrestrial environment: occurrence, behavior, and treatment processes. *Environmental Science and Pollution Research International.* 2016;23(4):3195–3216.
89. Rapp BE. Chapter 20 – Surface Tension. In: Rapp BE editor. *Microfluidics: Modelling, Mechanics and Mathematics.* Oxford: Elsevier; 2017. p. 421–444.
90. Ivankovic T, Hrenovic J. Surfactants in the environment. *Arhiv za higijenu rada i toksikologiju.* 2010;61(1):95–110.
91. Zhang C, Cui F, Zeng GM, Jiang M, Yang ZZ, Yu ZG, et al. Quaternary ammonium compounds (QACs): a review on occurrence, fate and toxicity in the environment. *The Science of the Total Environment.* 2015;518–519:352–362.
92. Giolando ST, Rapaport RA, Larson RJ, Federle TW, Stalmans M, Masscheleyn P. Environmental fate and effects of DEEDMAC: A new rapidly biodegradable cationic surfactant for use in fabric softeners. *Chemosphere.* 1995;30(6):1067–1083.
93. EPA. [cited 2018 Dec]. Available from: www.epa.gov/
94. Priority Substances, Priority Substances and Certain Other Pollutants according to Annex II of Directive 2008/105/EC (2008).
95. Acir I-H, Guenther K. Endocrine-disrupting metabolites of alkylphenol ethoxylates – A critical review of analytical methods, environmental occurrences, toxicity, and regulation. *Science of the Total Environment.* 2018;635:1530–1546.
96. Lu Z, Gan J. Analysis, toxicity, occurrence and biodegradation of nonylphenol isomers: A review. *Environment International.* 2014;73:334–345.
97. Manasfi T, Coulomb B, Boudenne JL. Occurrence, origin, and toxicity of disinfection byproducts in chlorinated swimming pools: An overview. *International Journal of Hygiene and Environmental Health.* 2017;220(3):591–603.
98. WHO. Chemistry of disinfectants and disinfectant by-products. World Health Organization; 2004. Report No.: 92 4 157216 7.
99. Mian HR, Hu G, Hewage K, Rodriguez MJ, Sadiq R. Prioritization of unregulated disinfection by-products in drinking water distribution systems for human health risk mitigation: A critical review. *Water Research.* 2018;147:112–131.
100. Vargha M. A vízhigiéné aktuális kérdései. 2018 [cited 2020 Jan]. Available from: <https://vtk.uni-nke.hu/hirek/2018/11/20/kornyezetegeszsegugy-es-eghajlatvaltozas>
101. Richardson SD, Plewa MJ, Wagner ED, Schoeny R, Demarini DM. Occurrence, genotoxicity, and carcinogenicity of regulated and emerging disinfection by-products in drinking water: a review and roadmap for research. *Mutation Research.* 2007;636(1–3):178–242.
102. Wang X, Mao Y, Tang S, Yang H, Xie YF. Disinfection byproducts in drinking water and regulatory compliance: A critical review. *Frontiers of Environmental Science and Engineering.* 2015;9(1):3–15.
103. WHO. Guidelines for Drinking-water Quality. 4th ed. 2011.
104. Villanueva CM, Cordier S, Font-Ribera L, Salas LA, Levallois P. Overview of Disinfection By-products and Associated Health Effects. *Current Environmental Health Reports.* 2015;2(1):107–115.
105. Rathna R, Varjani S, Nakkeeran E. Recent developments and prospects of dioxins and furans remediation. *Journal of Environmental Management.* 2018;223:797–806.

106. Thrasher JM. Sources and pathways of dioxins to humans – Diminished contribution of modern WTE facilities. Columbia University; 2014.
107. Schecter A, Fürst P, Fürst C, Päpke O, Ball M, Ryan JJ, et al. Chlorinated dioxins and dibenzofurans in human tissue from general populations: a selective review. *Environmental Health Perspectives*. 1994;102(Suppl 1):159–171.
108. Manzetti S, Van der Spoel ER, Van der Spoel D. Chemical properties, environmental fate, and degradation of seven classes of pollutants. *Chemical Research in Toxicology*. 2014;27(5):713–737.
109. Urbaniak M. Biodegradation of PCDDs/PCDFs and PCBs. In: Chamy R, Rosenkranz F editors. *Biodegradation – Engineering and Technology*. IntechOpen; 2013.
110. Committee to Review the Health Effects in Vietnam Veterans of Exposure to Herbicides (Tenth Biennial Update). Board on the Health of Select Populations, Institute of Medicine, National Academies of Sciences E, and Medicine. *Veterans and Agent Orange: Update 2014*. Washington (DC): National Academies Press; 2016.
111. Zhang Q, Yang L, Wang W-X. Bioaccumulation and trophic transfer of dioxins in marine copepods and fish. *Environmental Pollution*. 2011;159(12):3390–3397.
112. Goda Z. Az éghajlatváltozás lehetséges hatásai a parti szűrésű vízbázisokra. *Műszaki Katonai Közlöny*. 2019;29(1):185–194.
113. Hayakawa K. Chemistry of Polycyclic Aromatic Hydrocarbons (PAHs), Nitropolycyclic Aromatic Hydrocarbons (NPAHs) and Other Oxidative Derivatives of PAHs. In: Hayakawa K editor. *Polycyclic Aromatic Hydrocarbons: Environmental Behavior and Toxicity in East Asia*. Singapore: Springer Singapore; 2018. p. 3–10.
114. Armbruszt S, Füge K, Gubicskóné Kisbenedek A, Szabó Z, Szekeresné Szabó S, Polyák É. *Élelmiszer minőségbiztosítás*. Budapest: Medicina Könyvkiadó Zrt.; 2015.
115. Pilsner JR, Parker M, Sergeyev O, Suvorov A. Spermatogenesis disruption by dioxins: Epigenetic reprogramming and windows of susceptibility. *Reproductive Toxicology* (Elmsford, NY). 2017;69:221–229.
116. Dinka DD. Environmental Xenobiotics and Their Adverse Health Impacts-A General Review. *Journal of Environment Pollution and Human Health*. 2018;6(3):77–88.
117. Rengarajan T, Rajendran P, Nandakumar N, Lokeshkumar B, Rajendran P, Nishigaki I. Exposure to polycyclic aromatic hydrocarbons with special focus on cancer. *Asian Pacific Journal of Tropical Biomedicine*. 2015;5(3):182–189.
118. Beyer J, Trannum HC, Bakke T, Hodson PV, Collier TK. Environmental effects of the Deepwater Horizon oil spill: A review. *Marine Pollution Bulletin*. 2016;110(1):28–51.
119. Chemicals U. Guidelines for the Identification of PCBs and Materials Containing PCBs. United Nations Environment Programme; 1999.
120. Kisfalvi Á. Toxikus szerves mikroszennyező komponensek (dioxinok, furánok és pcb-k) előfordulási lehetőségei a környezetben I. [cited 2019 Dec]. Available from: www.aquadocinter.hu/themes/Dioxin/Dioxin20030703.htm
121. EFSA (European Food Safety Authority). Scientific statement on the health-based guidance value for dioxins and dioxin-like PCBs. *EFSA Journal*. 2015;13(5):14.
122. Safe S, Bandiera S, Sawyer T, Robertson L, Safe L, et al. PCBs: Structure-Function Relationships and Mechanism of Action. *Environmental Health Perspectives*. 1985;60:47–56.
123. Winneke G, Bucholski A, Heinzel B, Krämer U, Schmidt E, Wiener JA, Steingrüber HJ. Developmental neurotoxicity of polychlorinated biphenyls (PCBs): Cognitive and psychomotor functions in 7-month old children. *Toxicology Letters*. 1998;102–103:423–428.
124. Safe S, Hutzinger O. Polychlorinated Biphenyls (PCBs) and Polybrominated Biphenyls (PBBs): Biochemistry, Toxicology, and Mechanism of Action. *Critical Reviews in Toxicology*. 1984;3(4):319–395.

125. Thoma GO. Polychlorinated Biphenyls. Encyclopedia of Ecology. Elsevier; 2008.
126. Kimbrough RD, Jensen AA. Halogenated Biphenyls, Terphenyls, Naphthalenes, Dibenzodioxins and Related Products. Elsevier; 2012.
127. Tehrani R, Van Aken B. Hydroxylated polychlorinated biphenyls in the environment: sources, fate, and toxicities. *Environmental Science and Pollution Research International*. 2014;21(10):6334–6345.
128. Grimm FA, Hu D, Kania-Korwel I, Lehmler HJ, Ludewig G, Hornbuckle KC, et al. Metabolism and metabolites of polychlorinated biphenyls. *Crit Rev Toxicol*. 2015;45(3):245–272.
129. Hu D, Hornbuckle KC. Inadvertent polychlorinated biphenyls in commercial paint pigments. *Environmental Science and Technology*. 2010;44(8):2822–2827.
130. WHO. Air Quality Guidelines. 2nd edition. Denmark; 2000.
131. Ross G. The public health implications of polychlorinated biphenyls (PCBs) in the environment. *Ecotoxicology and Environmental Safety*. 2004;59(3):275–291.
132. Carpenter DO. Polychlorinated biphenyls (PCBs): routes of exposure and effects on human health. *Reviews on Environmental Health*. 2006;21(1):1–23.
133. Jepson PD, Deaville R, Barber JL, Aguilar Á, Borrell A, Murphy S, et al. PCB pollution continues to impact populations of orcas and other dolphins in European waters. *Scientific Reports*. 2016;6(1):18573.
134. BBC. „Shocking“ levels of PCB chemicals in UK killer whale Lulu. 2017 [cited 2019 Dec]. Available from: www.bbc.com/news/science-environment-39738582
135. Vogel SA. The politics of plastics: the making and unmaking of bisphenol a „safety“. *American Journal of Public Health*. 2009;99(Suppl 3):S559–S566.
136. Get the Facts: Bisphenol A (BPA) and Bisphenol S (BPS) [Available from: <https://saferchemicals.org/get-the-facts/toxic-chemicals/bpa-bps/>]
137. EPA. Bisphenol A (BPA) Summary [cited 2019]. Available from: www.epa.gov
138. Ike M, Chen MY, Danzl E, Sei K, Fujita M. Biodegradation of a variety of bisphenols under aerobic and anaerobic conditions. *Water Science and Technology*. 2006;53(6):153–159.
139. Siracusa JS, Yin L, Measel E, Liang S, Yu X. Effects of bisphenol A and its analogs on reproductive health: A mini review. *Reproductive Toxicology* (Elmsford, NY). 2018;79:96–123.
140. Rochester JR. Bisphenol A and human health: a review of the literature. *Reproductive Toxicology* (Elmsford, NY). 2013;42:132–155.
141. EPA. What are PFCs and How Do They Relate to Per- and Polyfluoroalkyl Substances (PFASs)? Available from: www.epa.gov/pfas/what-are-pfcs-and-how-do-they-relate-and-polyfluoroalkyl-substances-pfass
142. Xiao F. Emerging poly- and perfluoroalkyl substances in the aquatic environment: A review of current literature. *Water Res*. 2017;124:482–495.
143. NIH. Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) [cited 2019 Dec]. Available from: www.niehs.nih.gov/health/topics/agents/pfc/index.cfm
144. ITRC. Naming Conventions and Physical and Chemical Properties of Per- and Polyfluoroalkyl Substances (PFAS). 2017 [cited 2020 Jan]. Available from: <https://pfas-1.itrcweb.org/fact-sheets/>
145. Von der Trenck KT, Konietzka R, Biegel-Engler A, Brodsky J, Hädicke A, Quadflieg A, et al. Significance thresholds for the assessment of contaminated groundwater: perfluorinated and poly-fluorinated chemicals. *Environmental Sciences Europe*. 2018;30(1):19.
146. Zafeiraki E, Costopoulou D, Vassiliadou I, Leondiadis L, Dassenakis E, Traag W, et al. Determination of perfluoroalkylated substances (PFASs) in drinking water from the Netherlands and Greece. *Food Additives & Contaminants Part A, Chemistry, Analysis, Control, Exposure & risk assessment*. 2015;32(12):2048–2057.
147. Pelch KE, Reade A, Wolffe TAM, Kwiatkowski CF. PFAS health effects database: Protocol for a systematic evidence map. *Environ Int*. 2019;130:104851.

148. Domingo JL, Nadal M. Human exposure to per- and polyfluoroalkyl substances (PFAS) through drinking water: A review of the recent scientific literature. *Environmental Research*. 2019;177:108648.
149. Angyal A. Műanyag és gumi adalékok: Pannon Egyetem; 2012.
150. Keresztes S, Tatar E, Czegeny Z, Zaray G, Mihucz VG. Study on the leaching of phthalates from polyethylene terephthalate bottles into mineral water. *The Science of the Total Environment*. 2013;458–460:451–458.
151. Benjamin S, Masai E, Kamimura N, Takahashi K, Anderson RC, Faisal PA. Phthalates impact human health: Epidemiological evidences and plausible mechanism of action. *Journal of Hazardous Materials*. 2017;340:360–383.
152. Ventrice P, Ventrice D, Russo E, De Sarro G. Phthalates: European regulation, chemistry, pharmacokinetic and related toxicity. *Environmental Toxicology and Pharmacology*. 2013;36(1):88–96.
153. National Research Council (US) Committee on the Health Risks of Phthalates. Phthalates and Cumulative Risk Assessment: The Tasks Ahead. Washington (DC): National Academies Press (US); 2008.
154. Sheikh IA. Stereoselectivity and the potential endocrine disrupting activity of di-(2-ethylhexyl) phthalate (DEHP) against human progesterone receptor: a computational perspective. *Journal of Applied Toxicology*. 2016;36(5):741–747.
155. Gani KM, Tyagi VK, Kazmi AA. Occurrence of phthalates in aquatic environment and their removal during wastewater treatment processes: a review. *Environmental Science and Pollution Research International*. 2017;24(21):17267–17284.
156. WWF. Chemical Check Up An analysis of chemicals in the blood of Members of the European Parliament. 2004.
157. Iwase H, Oiso S, Kariyazono H, Nakamura K. Biological Effects of the Plasticizer Tris (2-Ethylhexyl) Trimellitate. *Clin Pharmacol Biopharm*. 2014;S2:004.
158. Pantelaki I, Voutsas D. Organophosphate flame retardants (OPFRs): A review on analytical methods and occurrence in wastewater and aquatic environment. *The Science of the Total Environment*. 2019;649:247–263.
159. Beard A, Angeler D. Flame Retardants: Chemistry, Applications, and Environmental Impacts. In: Lackner M, Winter F, Agarwal AK editors. *Handbook of Combustion*. 2010. p. 415–439.
160. EPA. Technical Fact Sheet – Polybrominated Diphenyl Ethers (PBDEs). 2017.
161. Wei GL, Li DQ, Zhuo MN, Liao YS, Xie ZY, Guo TL, et al. Organophosphorus flame retardants and plasticizers: sources, occurrence, toxicity and human exposure. *Environ Pollut*. 2015;196:29–46.
162. Kodavanti PRS, Valdez MC, Yamashita N. Chapter 52 – Brominated Flame Retardants and Perfluorinated Chemicals. In: Gupta RC editor. *Veterinary Toxicology*. 3rd edition. Academic Press; 2018. p. 691–707.
163. Rauscher H, Roebben G, Mech A, Gibson P, Kestens V, Linsinger T, et al. An overview of concepts and terms used in the European Commission's definition of nanomaterial. EUR – Scientific and Technical Research Reports. 2019.
164. Courtney P. Nanotechnology and Engineered Nanomaterials: a primer. 2010.
165. Kürti J, Koltai J. Szén nanoszerkezetek: fullerének, szén nanocsövek. Budapest: ELTE, TTK Fizikai Intézet, Biológiai Fizika Tanszék. 2013.
166. Murugadoss S, Lison D, Godderis L, Van Den Brule S, Mast J, Brassinne F, Sebaihi N, Hoet PH. Toxicology of silica nanoparticles: an update. *Archives of Toxicology*. 2017;91(9):2967–3010.
167. Lei M, Zhang L, Lei J, Zong L, Li J, Wu Z, Wang Z. Overview of Emerging Contaminants and Associated Human Health Effects. *BioMed Research International*. 2015;2015:12.

168. Han X, Li S, Peng Z, Al-Yuobi A-R, Bashammakh A, El-Shahawi MS, Leblanc RM. Interactions between Carbon Nanomaterials and Biomolecules. *Journal of Oleo Science*. 2016;65.
169. 80004-2:2015(en) IT. Nanotechnologies — Vocabulary — Part 2: Nano-objects. 2015.
170. 80004-4:2011(en) IT. Nanotechnologies — Vocabulary — Part 4: Nanostructured materials. 2011.
171. Klaessig F, Marrapese M, Abe S. Nanotechnology Standards. New York, NY: Springer; 2011.
172. Dévay A. A gyógyszertechnológia alapjai. Pécsi Tudományegyetem Gyógyszertechnológiája és Biofarmáciai Intézet; 2013.
173. Botá A. Nanorészecskék általános fizikai-kémiai tulajdonságai. *Természet Világa*. 2013.
174. Westerhoff P, Atkinson A, Fortner J, Wong MS, Zimmerman J, Gardea-Torresdey J, Ranville J, Herkes P. Low risk posed by engineered and incidental nanoparticles in drinking water. *Nature Nanotechnology*. 2018;13(8):661–669.
175. Ajdary M, Moosavi MA, Rahmati M, Falahati M, Mahboubi M, Mandegary A, et al. Health Concerns of Various Nanoparticles: A Review of Their in Vitro and in Vivo Toxicity. *Nanomaterials* (Basel, Switzerland). 2018;8(9).
176. Bogen KT, Heilman JM. Reassessment of MTBE cancer potency considering modes of action for MTBE and its metabolites. *Crit Rev Toxicol*. 2015;45(Suppl 1):1–56.
177. Saeedi A, Omidi M, Khoshnoud MJ, Mohammadi-Bardbori A. Exposure to methyl tert-butyl ether (MTBE) is associated with mitochondrial dysfunction in rat. *Xenobiotica; the fate of foreign compounds in biological systems*. 2017;47(5):423–430.
178. Vasas G. Algavirágzások környezetterhelése és toxinjainak variabilitása. Debrecen: Debreceni Egyetem; 2014.
179. American Water Works Association, Water Research Foundation. A Water Utility Manager's Guide to Cyanotoxins. American Water Works Association and Water Research Foundation; 2015.
180. Faigl F, Kollár L, Kotschy A, Szepes L. Szerves fémvegyületek kémiája. Budapest: Nemzeti Tankönyvkiadó.
181. National Center for Biotechnology Information. PubChem Database. [cited 2019 Nov]. Available from: <https://pubchem.ncbi.nlm.nih.gov>
182. Salma I szerkesztő. Környezetkémia. Budapest: Eötvös Loránd Tudományegyetem; 2012.
183. Borsodi A, Felföldi T, Jáger K, Makk J, Márialigeti K, Romsics C, et al. Bevezetés a prokarióták világába. Márialigeti K szerkesztő. Budapest: Eötvös Loránd Tudományegyetem; 2013.
184. Swaran JSF. 1 – Arsenic: Chemistry, Occurrence, and Exposure. In: Flora SJS, editor. *Handbook of Arsenic Toxicology*. Oxford: Academic Press; 2015. p. 1–49.
185. Cavalheiro J, Sola C, Baldanza J, Tessier E, Lestremau F, Botta F, et al. Assessment of background concentrations of organometallic compounds (methylmercury, ethyllead and butyl- and phenyltin) in French aquatic environments. *Water Research*. 2016;94:32–41.
186. Hill MK. Understanding Environmental Pollution: A Primer. 2nd edition. Cambridge: Cambridge University Press; 2004.
187. Basu N, Janz DM. 3 – Organometal(lloid)s. In: Tierney KB, Farrell AP, Brauner CJ editors. *Fish Physiology*. 33. Academic Press; 2013. p. 141–194.
188. Thompson RC. Microplastics in the Marine Environment: Sources, Consequences and Solutions. In: Bergmann M, Gutow L, Klages M editors. *Marine Anthropogenic Litter*: Springer Open; 2015.
189. Arthur C, Baker JE, Bamford HA. Proceedings of the International Research Workshop on the Occurrence, Effects, and Fate of Microplastic Marine Debris, September 9–11, 2008. Tacoma, WA: University of Washington Tacoma; 2009.
190. Gigault J, Halle AT, Baudrimont M, Pascal P-Y, Gauffre F, Phi T-L, et al. Current opinion: What is a nanoplastic? *Environmental Pollution*. 2018;235:1030–1034.

191. Jin Y, Lu L, Tu W, Luo T, Fu Z. Impacts of polystyrene microplastic on the gut barrier, microbiota and metabolism of mice. *The Science of the Total Environment*. 2019;649:308–317.
192. Duis K, Coors A. Microplastics in the aquatic and terrestrial environment: sources (with a specific focus on personal care products), fate and effects. *Environmental Sciences Europe*. 2016;28(1):2.
193. WHO. Microplastics in drinking-water World Health Organization; 2019. Report
194. Lambert S, Scherer C, Wagner M. Ecotoxicity testing of microplastics: Considering the heterogeneity of physicochemical properties. 2017. 470–475 p.
195. Baird C, Cann M. Environmental Chemistry. 5th, international edition. Freeman WH editor; 2012.
196. Pukánszky B, Móczó J. Műanyagok. Zsuga M szerkesztő. Budapest: BME Vegyészszmérnöki és Biomérnöki Kar, Fizikai Kémia és Anyagtudományi Tanszék; 2011.
197. Boucher J, Friot D. Primary microplastics in the oceans: a global evaluation of sources. IUCN, Global Marine and Polar Programme; 2017.
198. Corradini F, Meza P, Eguiluz R, Casado F, Huerta-Lwanga E, Geissen V. Evidence of microplastic accumulation in agricultural soils from sewage sludge disposal. *Science of the Total Environment*. 2019;671:411–420.
199. Bordós G, Urbányi B, Micsinai A, Kriszt B, Palotai Z, Szabó I, Hantosi Zs, Szoboszlay S. Identification of microplastics in fish ponds and natural freshwater environments of the Carpathian basin, Europe. *Chemosphere*. 2019;216:110–116.
200. Parányi Plasztiktalány projekt. Hemzseg a mikroplasztik a Dunában [cited 2020 Jan]. Available from: <https://mikromuanyag.hu/Duna-II>
201. Kosuth M, Mason SA, Wattenberg EV. Anthropogenic contamination of tap water, beer, and sea salt. *PLoS One*. 2018;13(4):e0194970.
202. Eerkes-Medrano D, Leslie HA, Quinn B. Microplastics in drinking water: A review and assessment. *Current Opinion in Environmental Science & Health*. 2019;7:69–75.
203. Koelmans AA, Mohamed Nor NH, Hermsen E, Kooi M, Mintenig SM, De France J. Microplastics in freshwaters and drinking water: Critical review and assessment of data quality. *Water Research*. 2019;155:410–422.
204. Panno SV, Kelly WR, Scott J, Zheng W, McNeish RE, Holm N, et al. Microplastic Contamination in Karst Groundwater Systems. *Groundwater*. 2019;57(2):189–196.
205. Mintenig SM, Loder MGJ, Primpke S, Gerdts G. Low numbers of microplastics detected in drinking water from ground water sources. *The Science of the Total Environment*. 2019;648:631–635.
206. Cox KD, Covernton GA, Davies HL, Dower JF, Juanes F, Dudas SE. Human Consumption of Microplastics. *Environmental Science & Technology*. 2019;53(12):7068–7074.
207. FAO UN. Microplastics in fisheries and aquaculture: status of knowledge on their occurrence and implications for aquatic organisms and food safety. Rome: Food and Agriculture Organization 2017. Report No.: Technical Paper No. 615.
208. Choy CA, Robison BH, Gagne TO, Erwin B, Firl E, Halden RU, et al. The vertical distribution and biological transport of marine microplastics across the epipelagic and mesopelagic water column. *Scientific Reports*. 2019;9(1):7843.
209. Burns EE, Boxall ABA. Microplastics in the aquatic environment: Evidence for or against adverse impacts and major knowledge gaps. *Environmental toxicology and chemistry*. 2018;37(11):2776–2796.
210. ICPDR. Plastics and microplastics in the Danube River. 2016 [cited 2020 Jan]. Available from: www.icpdr.org/main/publications/plastics-and-microplastics-danube-river.
211. Zettler ER, Mincer TJ, Amaral-Zettler LA. Life in the „plastisphere”: microbial communities on plastic marine debris. *Environ Sci Technol*. 2013;47(13):7137–7146.

212. Kirstein IV, Kirmizi S, Wichels A, Garin-Fernandez A, Erler R, Loder M, Gerdts G. Dangerous hitchhikers? Evidence for potentially pathogenic *Vibrio* spp. on microplastic particles. *Marine Environmental Research.* 2016;120:1–8.
213. Kettner MT, Oberbeckmann S, Labrenz M, Grossart H-P. The Eukaryotic Life on Microplastics in Brackish Ecosystems. *Frontiers in Microbiology.* 2019;10(538).
214. Parrish K, Fahrenfeld NL. Microplastic biofilm in fresh- and wastewater as a function of microparticle type and size class. *Environmental Science: Water Research and Technology.* 2019;5(3):495–505.
215. Limonta G, Mancia A, Benkhalqui A, Bertolucci C, Abelli L, Fossi MC, Panti C. Microplastics induce transcriptional changes, immune response and behavioral alterations in adult zebrafish. *Scientific Reports.* 2019;9(1):15775.
216. Rochman CM, Hoh E, Kurobe T, Teh SJ. Ingested plastic transfers hazardous chemicals to fish and induces hepatic stress. *Scientific Reports.* 2013;3(1):3263.
217. Wright SL, Kelly FJ. Plastic and Human Health: A Micro Issue? *Environ Sci Technol.* 2017;51(12):6634–6647.
218. Turcotte SE, Chee A, Walsh R, Grant FC, Liss GM, Boag A, et al. Flock worker's lung disease: natural history of cases and exposed workers in Kingston, Ontario. *Chest.* 2013;143(6):1642–1648.
219. Weis JS. Improving microplastic research. *AIMS Environmental Science.* 2019;6(5):326–340.