REFERENCES

The literature sources we used in our hdrOzone studies;

1. Alexandra Fischbacher, Katja Löppenberg, Clemens von Sonntag, and Torsten C. Schmidt . A New Reaction Pathway for Bromite to Bromate in the Ozonation of Bromide. Environmental Science & Technology 2015, 49 (19) , 11714-11720. DOI: 10.1021/acs.est.5b02634.

2. Yi Yang, Jin Jiang,. inglin Lu, Jun Ma, and Yongze Liu . Production of Sulfate Radical and Hydroxyl Radical by Reaction of Ozone with Peroxymonosulfate: A Novel Advanced Oxidation Process. Environmental Science & Technology 2015, 49 (12) , 7330-7339. DOI: 10.1021/es506362e.

3. Janez Cerkovnik and Božo Plesničar . Recent Advances in the Chemistry of Hydrogen Trioxide (HOOOH). Chemical Reviews 2013, 113 (10) , 7930-7951. DOI: 10.1021/cr300512s.

4. Alexandra Fischbacher, Justus von Sonntag, Clemens von Sonntag, and Torsten C. Schmidt . The •OH Radical Yield in the H2O2 + O3 (Peroxone) Reaction. Environmental Science & Technology 2013, 47 (17) , 9959-9964. DOI: 10.1021/es402305r.

5. Carlos Barrera-Díaz, Lina. A. Bernal-Martínez, Reyna Natividad, and Juan M. Peralta-Hernández . Synergy of Electrochemical/O3 Process with Aluminum Electrodes in Industrial Wastewater Treatment. Industrial & Engineering Chemistry Research 2012, 51 (27) , 9335-9342. DOI: 10.1021/ie3004144.

6. Sergej Naumov and Clemens von Sonntag . Standard Gibbs Free Energies of Reactions of Ozone with Free Radicals in Aqueous Solution: Quantum-Chemical Calculations. Environmental Science & Technology 2011, 45 (21) , 9195-9204. DOI: 10.1021/es2018658.

7. J. Pablo Pocostales, Myint M. Sein, Wolfgang Knolle, Clemens von Sonntag, and Torsten C. Schmidt. Degradation of Ozone-Refractory Organic Phosphates in Wastewater by Ozone and Ozone/Hydrogen Peroxide (Peroxone): The Role of Ozone Consumption by Dissolved Organic Matter. Environmental Science & Technology 2010, 44 (21) , 8248-8253. DOI: 10.1021/es1018288.

8. Helena Jablonowski, Joao Santos Sousa, Klaus-Dieter Weltmann, Kristian Wende, Stephan Reuter. Quantification of the ozone and singlet delta oxygen produced in gas and liquid phases by a non-thermal atmospheric plasma with relevance for medical treatment. Scientific Reports 2018, 8 (1) DOI: 10.1038/s41598-018-30483-w.

9. Yalei Ding, Jiejie Wang, Shanshan. u, Kun-Yi Andrew Lin, Shaoping Tong. Oxygen vacancy of CeO2 improved efficiency of H2O2/O3 for the degradation of acetic acid in acidic solutions. Separation and Purification Technology 2018, 207, 92-98. DOI: 10.1016/j.seppur.2018.06.027.

10. Donggwan Lee, Jae-Cheol Lee, Joo-Youn Nam, Hyun-Woo Kim. Degradation of sulfonamide antibiotics and their intermediates toxicity in an aeration-assisted non-thermal plasma while treating strong wastewater. Chemosphere 2018, 209, 901-907. DOI: 10.1016/j.chemosphere.2018.06.125.

11. David B. Miklos, Christian Remy, Martin Jekel, Karl G. Linden, Jörg E. Drewes, Uwe Hübner. Evaluation of advanced oxidation processes for water and wastewater treatment – A critical review. Water Research 2018, 139, 118-131. DOI: 10.1016/j.watres.2018.03.042.

12. Pierre-François Biard, Thom Thi Dang, Jenny Bocanegra, Annabelle Couvert. Intensification of the O 3 /H 2 O 2 advanced oxidation process using a continuous tubular reactor filled with static mixers: Proof of concept. Chemical Engineering Journal 2018, 344, 574-582. DOI: 10.1016/j.cej.2018.03.112.

13. Emmanuel Mousset, Nihal Oturan, Mehmet A. Oturan. An unprecedented route of OH radical reactivity evidenced by an electrocatalytical process: Ipso-substitution with perhalogenocarbon compounds. Applied Catalysis B: Environmental 2018, 226, 135-146. DOI: 10.1016/j.apcatb.2017.12.028.

14. J.F. Pérez, S. Sabatino, A. Galia, M.A. Rodrigo, J. Llanos, C. Sáez, O. Scialdone. Effect of air pressure on the electro-Fenton process at carbon felt electrodes. Electrochimica Acta 2018, 273, 447-453. DOI: 10.1016/j.electacta.2018.04.031.

15. Guilherme Garcia Bessegato, João Carlos de Souza, Juliano Carvalho Cardoso, Maria Valnice Boldrin Zanoni. Assessment of several advanced oxidation processes applied in the treatment of environmental concern constituents from a real hair dye wastewater. Journal of Environmental Chemical Engineering 2018, 6 (2) , 2794-2802. DOI: 10.1016/j.jece.2018.04.041.

16. A. Privat-Maldonado, Y. Gorbanev, D. O'Connell, R. Vann, V. Chechik, M. W. van der Woude. Nontarget Biomolecules Alter Macromolecular Changes Induced by Bactericidal Low–Temperature Plasma. IEEE Transactions on Radiation and Plasma Medical Sciences 2018, 2 (2) , 121-128. DOI: 10.1109/TRPMS.2017.2761405.

17. Mika Sillanpää, Mohamed Chaker Ncibi, Anu Matilainen. Advanced oxidation processes for the removal of natural organic matter from drinking water sources: A comprehensive review. Journal of Environmental Management 2018, 208, 56-76. DOI: 10.1016/j.jenvman.2017.12.009.

18. B.W. Darvell. More Chemistry. 2018,,, 771-789. DOI: 10.1016/B978-0-08-101035-8.50030-4.

19. Erika Reisz, Clemens von Sonntag, Agnes Tekle-Röttering, Sergej Naumov, Winfried Schmidt, Torsten C. Schmidt. Reaction of 2-propanol with ozone in aqueous media. Water Research 2018, 128, 171-182. DOI: 10.1016/j.watres.2017.10.035.

20. João F. Gomes, Inês Leal, Katarzyna Bednarczyk, Marta Gmurek, Marek Stelmachowski, Magdalena Diak, M. Emília Quinta-Ferreira, Raquel Costa, Rosa M. Quinta-Ferreira, Rui C.

Martins. Photocatalytic ozonation using doped TiO 2 catalysts for the removal of parabens in water. Science of The Total Environment 2017, 609, 329-340. DOI: 10.1016/j.scitotenv.2017.07.180.

21. Pierre-François Biard, Thom Thi Dang, Annabelle Couvert. Determination by reactive absorption of the rate constant of the ozone reaction with the hydroperoxide anion. Chemical Engineering Research and Design 2017, 127, 62-71. DOI: 10.1016/j.cherd.2017.09.004.

22. Ozge Turkay, Sibel Barışçı, Mika Sillanpää. E-peroxone process for the treatment of laundry wastewater: A case study. Journal of Environmental Chemical Engineering 2017, 5 (5) , 4282-4290. DOI: 10.1016/j.jece.2017.08.012.

23. Minhwan Kwon, Homin Kye, Youmi Jung, Yeojoon Yoon, Joon-Wun Kang. Performance characterization and kinetic modeling of ozonation using a new method: R OH,O3 concept. Water Research 2017, 122, 172-182. DOI: 10.1016/j.watres.2017.05.062.

24. Ligy Philip, Bhallamudi Murty, Channarong Puchongkawarin, Miao Guo, Nilay Shah, David Stuckey, Benoit Chachuat, Yannic Vaupel, Sarojini Tiwari, Chitta Behera, Babji Srinivasan, Chedly Tizaoui, Olajumoke Odejimi, Ayman Abdelaziz. 3 Wastewater Treatment. 2017,,, 115-180. DOI: 10.1201/9781315153209-4.

25. Songjie Wu, Qian Zhang, Ruonan Ma, Shuang Yu, Kaile Wang, Jue Zhang, Jing Fang. Reactive radical-driven bacterial inactivation by hydrogen-peroxide-enhanced plasma-activated-water. The European Physical Journal Special Topics 2017, 226 (13) , 2887-2899. DOI: 10.1140/epjst/e2016-60330-y.

26. Julia Patzsch, Jonathan Z. Bloh. Improved photocatalytic ozone abatement over transition metal-grafted titanium dioxide. Catalysis Today 2017, DOI: 10.1016/j.cattod.2017.07.010.

27. Xinyang Li, Shaobin Sun,. u Zhang, Guicheng Liu, Clark Renjun Zheng, Jianzhong Zheng, Dayi Zhang, Hong Yao. Combined electro-catazone/electro-peroxone process for rapid and effective Rhodamine B degradation. Separation and Purification Technology 2017, 178, 189-192. DOI: 10.1016/j.seppur.2016.12.052.

28. Jingxin Yang, Ji Li, Wenyi Dong, Jun Ma, Jiayin Li. Influence of nitrite on the degradation of atrazine by ozonation. Journal of Chemical Technology & Biotechnology 2017, 92 (2) , 442-450. DOI: 10.1002/jctb.5031.

29. George Wafula Wanjala, Arnold Onyango, Calvin Onyango, Moses Makayoto. . African Journal of Biochemistry Research 2017,,, 79. DOI: 10.5897/AJBR2017.0967.

30. Glen Andrew de Vera, Wolfgang Gernjak, Howard Weinberg, Maria José Farré, Jurg Keller, Urs von Gunten. Kinetics and mechanisms of nitrate and ammonium formation during ozonation of dissolved organic nitrogen. Water Research 2017, 108, 451-461. DOI: 10.1016/j.watres.2016.10.021.

31. M. E. Zappi, R. Hernandez, D. Gang, R. Bajpai, C. H. Kuo, D. O. Hill. Treatment of groundwater contaminated with high levels of explosives using advanced oxidation processes. International Journal of Environmental Science and Technology 2016, 13 (12) , 2767-2778. DOI: 10.1007/s13762-016-1109-x.

32. Juhong Zhan, Yujue Wang, Huijiao Wang, Wenhua Shen,. uejun Pan, Jinlin Wang, Gang Yu. Electro-peroxone regeneration of phenol-saturated activated carbon fiber: The effects of irreversible adsorption and operational parameters. Carbon 2016, 109, 321-330. DOI: 10.1016/j.carbon.2016.08.034.

33. Jingxin Yang, Ji Li, Wenyi Dong, Jun Ma, Jie Cao, Tingting Li, Jiayin Li, Jia Gu, Pingxin Liu. Study on enhanced degradation of atrazine by ozonation in the presence of hydroxylamine. Journal of Hazardous Materials 2016, 316, 110-121. DOI: 10.1016/j.jhazmat.2016.04.078.

34. Xin Cheng, Hongguang Guo, Hongwei Liu, Yang Liu, Ying Yang, Yongli Zhang. Performance and Mechanism on Degradation of Estriol Using O 3 /PS Process. Ozone: Science & Engineering 2016, 38 (5) , 358-366. DOI: 10.1080/01919512.2016.1170589.

35. László Wojnárovits, Erzsébet Takács. Radiation Induced Degradation of Organic Pollutants in Waters and Wastewaters. Topics in Current Chemistry 2016, 374 (4) DOI: 10.1007/s41061-016-0050-2.

36. Jaedon Shin, Zahra Ramadhany Hidayat, Yunho Lee. Influence of Seasonal Variation of Water Temperature and Dissolved Organic Matter on Ozone and OH Radical Reaction Kinetics During Ozonation of a Lake Water. Ozone: Science & Engineering 2016, 38, 100-114. DOI: 10.1080/01919512.2015.1079120.

37. Yury Gorbanev, Deborah O'Connell, Victor Chechik. Non-Thermal Plasma in Contact with Water: The Origin of Species. Chemistry - A European Journal 2016, 22 (10) , 3496-3505. DOI: 10.1002/chem.201503771.

38. Arnold N. Onyango. Alternatives to the 'water oxidation pathway' of biological ozone formation. Journal of Chemical Biology 2016, 9, 1-8. DOI: 10.1007/s12154-015-0140-6.

39. Fei Qi, Wei Chu, Bingbing. u. Comparison of phenacetin degradation in aqueous solutions by catalytic ozonation with CuFe 2 O 4 and its precursor: Surface properties, intermediates and reaction mechanisms. Chemical Engineering Journal 2016, 284, 28-36. DOI: 10.1016/j.cej.2015.07.095.

40. Erika Reisz, Sergej Naumov, Winfried Schmidt, Clemens von Sonntag. Reaction of Ozone with Ag(I)—Mechanistic Considerations. Ozone: Science & Engineering 2015, 37, 393-404. DOI: 10.1080/01919512.2015.1041583.

41. Huijiao Wang, Shi Yuan, Juhong Zhan, Yujue Wang, Gang Yu, Shubo Deng, Jun Huang, Bin Wang. Mechanisms of enhanced total organic carbon elimination from oxalic acid solutions by electro-peroxone process. Water Research 2015, 80, 20-29. DOI: 10.1016/j.watres.2015.05.024.

42. Jesús Ferre-Aracil, Salvador C. Cardona, Javier Navarro-Laboulais. Kinetic Study of Ozone Decay in Homogeneous Phosphate-Buffered Medium. Ozone: Science & Engineering 2015, 37, 330-342. DOI: 10.1080/01919512.2014.998756.

43. Fei Qi, Bingbing. u, Wei Chu. Heterogeneous catalytic ozonation of phenacetin in water using magnetic spinel ferrite as catalyst: Comparison of surface property and efficiency. Journal of Molecular Catalysis A: Chemical 2015, 396, 164-173. DOI: 10.1016/j.molcata.2014.10.001.

44. Erika Reisz, Alexandra Fischbacher, Sergej Naumov, Clemens von Sonntag, Torsten C. Schmidt. Hydride Transfer: A Dominating Reaction of Ozone with Tertiary Butanol and Formate Ion in Aqueous Solution. Ozone: Science & Engineering 2014, 36, 532-539. DOI: 10.1080/01919512.2014.891436.

45. Sergey L. Khursan. Peroxide intermediates of oxidation processes: Organic trioxides. 2014,,, 1-72. DOI: 10.1002/9780470682531.pat0874.

46. S. Reed Plimpton, Mark Gołkowski, Deborah G. Mitchell, Chad Austin, Sandra S. Eaton, Gareth R. Eaton, Czeslaw Gołkowski, Martin Voskuil. Remote delivery of hydroxyl radicals via secondary chemistry of a nonthermal plasma effluent. Biotechnology and Bioengineering 2013, 110 (10.1002/bit.v110.7) , 1936-1944. DOI: 10.1002/bit.24853.

47. Zdenko Machala, Barbora Tarabova, Karol Hensel, Eva Spetlikova, Libusa Sikurova, Petr Lukes. Formation of ROS and RNS in Water Electro-Sprayed through Transient Spark Discharge in Air and their Bactericidal Effects. Plasma Processes and Polymers 2013, 10 (10.1002/ppap.v10.7) , 649-659. DOI: 10.1002/ppap.201200113.

48. Josep M. Anglada, Miquel Torrent-Sucarrat, Manuel F. Ruiz-Lopez, Marilia Martins-Costa. Is the HO 4− Anion a Key Species in the Aqueous-Phase Decomposition of Ozone?. Chemistry - A European Journal 2012, 18 (10.1002/chem.v18.42) , 13435-13445. DOI: 10.1002/chem.201201991.

49. Marek Golkowski, Czesław Golkowski, Jori Leszczynski, S. Reed Plimpton, Piotr Maslowski, Aleksandra Foltynowicz, Jun Ye, Bruce McCollister. Hydrogen-Peroxide-Enhanced Nonthermal Plasma Effluent for Biomedical Applications. IEEE Transactions on Plasma Science 2012, 40, 1984-1991. DOI: 10.1109/TPS.2012.2200910.

50. D. Gardoni, A. Vailati, R. Canziani. Decay of Ozone in Water: A Review. Ozone: Science & Engineering 2012, 34, 233-242. DOI: 10.1080/01919512.2012.686354.

51. Sergej Naumov, Clemens von Sonntag. The reaction of •OH with O2, the decay of O 3•− and the pKa of HO 3• - interrelated questions in aqueous free-radical chemistry. Journal of Physical Organic Chemistry 2011, 24 (10.1002/poc.v24.7) , 600-602. DOI: 10.1002/poc.1812.

52. Rossano Amadelli, Luca Samiolo, Achille De Battisti, Alexander B. Velichenko. Electro-oxidation of Some Phenolic Compounds by Electrogenerated O3 and by Direct Electrolysis at PbO2 Anodes. Journal of The Electrochemical Society 2011, 158, P87. DOI: 10.1149/1.3589913.

53.Bu Daniela Trogolo, J. Samuel Arey, Peter R. Tentscher. Gas-Phase Ozone Reactions with a Structurally Diverse Set of Molecules: Barrier Heights and Reaction Energies Evaluated by Coupled Cluster and Density Functional Theory Calculations. The Journal of Physical Chemistry A 2019, 123 (2) , 517-536. DOI: 10.1021/acs.jpca.8b10323.

54. Pentax, White Papers

55. ASP, White Papers

56. Olympus, White Papers

57. Hygcen

58. EWMA Publications

59. DAS Publications