

Bibliography

The following documents contain details which can be used within the framework of this document.

This list of documents which are published and used by the members of CEN was correct at the time of publication of this document but shall not be considered to be exhaustive.

European standards

- [1] EN 170, *Personal eye-protection - Ultraviolet filters - Transmittance requirements and recommended use*
- [2] EN 752, *Drain and sewer systems outside buildings - Sewer system management*
- [3] EN 938, *Chemicals used for treatment of water intended for human consumption - Sodium chlorite*
- [4] EN 939, *Chemicals used for treatment of water intended for human consumption - Hydrochloric acid*
- [5] EN 10088-3, *Stainless steels - Part 3: Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes*
- [6] EN 16932 series, *Drain and sewer systems outside buildings — Pumping systems*

National requirements

Austria

- [7] ÖNORM M 5873-1, *Geräte zur Desinfektion von Wasser mittels Ultraviolettstrahlung — Teil 1: Geräte mit UV-Niederdrucklampen — Anforderungen und Prüfung*
- [8] ÖNORM M 5878, *Anforderungen an Ozonungsanlagen zur Wasseraufbereitung*
- [9] ÖNORM M 5879-1, *Anforderungen an Chlorungsanlagen zur Wasserbehandlung — Teil 1: Chlorgas-Anlagen*
- [10] ÖNORM M 5879-2, *Anforderungen an Chlorungsanlagen zur Wasserbehandlung — Teil 2: Anlagen zur Desinfektion und Oxidation durch Natriumhypochlorit-Lösungen*
- [11] ÖNORM M 5879-3, *Anforderungen an Chlorungsanlagen zur Wasserbehandlung — Teil 3: Chlordioxidanlagen*

Germany

- [12] DIN 19606, *Chlorinators for water treatment — Technical requirements for equipment, installation and operation*
- [13] DIN 19627, *Ozone generation plants for water treatment*
- [14] DWA-M 205, 2013, *Desinfektion von biologisch gereinigtem Abwasser*

- [15] DVGW W 294, *UV-systems for the disinfection in drinking water supplies — Requirements and testing*²
- [16] DVGW W 623, *Dosage-installation for disinfectant and oxidising agent; dosage-installation for chlorine*²
- [17] DVGW W 624, *Dosing Plants for Disinfectants and Oxidation Agents — Preparation and Dosing Plants for Chlorine Dioxide*²
- [18] DVGW W 625, *Plants for the production and dosage of ozone in drinking water supply*²
- [19] ZH 1/474, Richtlinien für die Verwendung von Ozon zur Wasseraufbereitung
- [20] Pfeiffer, W.; Ultraviolet disinfection technology and assessment; European Water Management, Vol. 2, No. 1 (1998) — special issue on parasites and pathogens
- [21] Bernhardt et al, Desinfektion aufbereiteter Oberflächenwässer mit UV-Strahlen — erste Ergebnisse des Forschungsvorhabens, gwf - Wasser - Abwasser 133. (1992), Nr. 12, S. 632-643
- [22] Safert et al. Membranfiltration zur Keim- und P-Elimination im Ablauf kommunaler Kläranlagen, in: Rautenbach et al, Möglichkeiten und Perspektiven der Membrantechnik bei der kommunalen Abwasserbehandlung und Trinkwasseraufbereitung, A8, 1-14, Aachen (1997)

France

- [23] Fascicule 81, titre II: Fascicule interministériel applicable aux marchés publics de travaux de génie civil (CCTG) – Conception et exécution des installations d'épuration d'eaux usées

USA

- [24] Ultraviolet Disinfection Technology Assessment E.P.A. EPA, 832-R-92-004, USA, (1992)
- [25] EPA. Design Manual — Municipal Wastewater Disinfection, EPA/625/1-86/021, USA, (1986)

ISO standards

- [26] EN ISO 385, *Laboratory glassware - Burettes (ISO 385)*
- [27] EN ISO 648, *Laboratory glassware - Single-volume pipettes (ISO 648)*
- [28] EN ISO 4788, *Laboratory glassware - Graduated measuring cylinders (ISO 4788)*
- [29] EN ISO 6341:2012, *Water quality - Determination of the inhibition of the mobility of Daphnia magna Straus (Cladocera, Crustacea) - Acute toxicity test (ISO 6341:2012)*
- [30] EN ISO 24450, *Laboratory glassware - Wide-necked boiling flasks (ISO 24450)*
- [31] ISO 3857-4:2012, *Compressors, pneumatic tools and machines — Vocabulary — Part 4: Air treatment*
- [32] ISO 8637-3:2018, *Extracorporeal systems for blood purification — Part 3: Plasmafilters*

- [33] ISO 11348-3:2007, *Water quality — Determination of the inhibitory effect of water samples on the light emission of *Vibrio fischeri* (Luminescent bacteria test) — Part 3: Method using freeze-dried bacteria*

Publications

- [34] Antonelli M., Turolla A., Mezzanotte V., Nurizzo C. Peracetic acid for secondary effluent disinfection: a comprehensive performance assessment. *Water Sci. Technol.* 2013, 68 pp. 2638–2644
- [35] Azzellino A., Antonelli M., Canziani R., Malpei F., Marinetti M., Nurizzo C. Multivariate modelling of disinfection kinetics: A comparison among three different disinfectants. *Desalin. Water Treat.* 2011, 29 pp. 128–139
- [36] Luukkonen T., Pehkonen S.O. Peracids in water treatment: A critical review. *Crit. Rev. Environ. Sci. Technol.* 2017, 47 (1) pp. 1–3
- [37] Wagner M., Brumelis D., Gehr R. Disinfection of Wastewater by Hydrogen Peroxide or Peracetic Acid : Development of Procedures for Measurement of Residual Disinfectant and Application to a Physicochemically Treated Municipal Effluent. *Water Environ. Res.* 2002, 74 (1) pp. 33–50
- [38] Rizzo L., Agovino T., Nahim-Granados S., Castro-Alfárez M., Fernández-Ibáñez P., Polo-López M.I. Tertiary treatment of urban wastewater by solar and UV-C driven advanced oxidation with peracetic acid: Effect on contaminants of emerging concern and antibiotic resistance. *Water Res.* 2019, 149 pp. 272–281
- [39] Collivignarelli M.C., Abbà A., Benigna I., Sorlini S., Torretta V. Overview of the main disinfection processes for wastewater and drinking water treatment plants. *Sustainability.* 2017, 10 p. 86
- [40] Karpova T., Pekonen P., Gramstad R., Öjstedt U., Laborda S., Heinonen-Tanski H. et al. Performic acid for advanced wastewater disinfection. *Water Sci. Technol.* 2013, 68 pp. 2090–2096
- [41] Luukkonen T., Teeriniemi J., Prokkola H., Rämö J., Lassi U. Chemical aspects of peracetic acid-based wastewater disinfection. *Water S.A.* 2014, 40 pp. 73–80
- [42] Kitis M. Disinfection of wastewater with peracetic acid: a review. *Environ. Int.* 2004, 30 pp. 47–55
- [43] Henao L.D., Turolla A., Antonelli M. Disinfection by-products formation and ecotoxicological effects of effluents treated with peracetic acid: A review. *Chemosphere.* 2018, 213 pp. 25–40
- [44] Chhetri R.K., Thornberg D., Berner J., Gramstad R., Öjstedt U., Sharma A.K. et al. Chemical disinfection of combined sewer overflow waters using performic acid or peracetic acids. *Sci. Total Environ.* 2014, 490 pp. 1065–1072
- [45] Hijnen W.A.M., Beerendonk E.F., Medema G.J. Inactivation credit of UV radiation for viruses, bacteria and protozoan (oo)cysts in water: A review. *Water Res.* 2006, 40 (1) pp. 3–22
- [46] Rebelo A., Ferra I., Gonçalves I., Marques A.M. A Risk Assessment Model for Water Resources: Releases of dangerous and hazardous substances. *J. Environ. Manage.* 2014, 140 pp. 51–59
- [47] Pekárek S., Rosenkranz J. Ozone and nitrogen oxides generation in gas flow enhanced hollow needle to plate discharge in air. *Ozone Sci. Eng.* 2002, 24 pp. 221–226

- [48] Futamura S., Zhang A., Yamamoto T. Behavior of N₂ and nitrogen oxides in nonthermal plasma chemical processing of hazardous air pollutants. *IEEE Trans. Ind. Appl.* 2000, 36 pp. 1507–1514
- [49] Huang L., Yang S., Liu S., Wang Q., Zhu Y. Removal of NO₂ produced by corona discharge in indoor air cleaning. *Journal of Advanced Oxidation Technologies.* 2009, 12 pp. 238–241
- [50] Kogelschatz U., Baessler P. Determination of Nitrous Oxide and Dinitrogen Pentoxide Concentrations in the Output of Air-Fed Ozone Generators of High Power Density. *Ozone Sci. Eng.* 1987, 9 pp. 195–206
- [51] Yuan D., Xie S., Ding C., Lin F., He Y., Wang Z. et al. The benefits of small quantities of nitrogen in the oxygen feed to ozone generators. *Ozone Sci. Eng.* 2018, p. 40
- [52] Humpert C., Pietsch G.J. Simulation of Ozone Synthesis in Oxygen- and Air-Fed Surface Discharge Arrangements. *Ozone Sci. Eng.* 2005, 27 pp. 59–68
- [53] Junhong C., Pengxiang W. Effect of relative humidity on electron distribution and ozone production by DC coronas in air. *IEEE Trans. Plasma Sci.* 2005, 33 pp. 808–812
- [54] Braun D., K uchler U., Pietsch G. Behaviour of NO_x in air fed ozonizers. *Pure Appl. Chem.* 1988, 60 (5) pp. 741–746