

REFERENCES

- [1] Romero, A., Santos, A., Vicente, F., Rodriguez, S., & Lafuente, A. L. (2009). In situ oxidation remediation technologies: Kinetic of hydrogen peroxide decomposition on soil organic matter. *Journal of hazardous materials*, 170(2), 627-632.
- [2] Goi, A., Viisimaa, M., Trapido, M., & Munter, R. (2011). Polychlorinated biphenyls-containing electrical insulating oil contaminated soil treatment with calcium and magnesium peroxides. *Chemosphere*, 82(8), 1196-1201.
- [3] Schmidtke, T., White, D., & Woolard, C. (1999). Oxygen release kinetics from solid phase oxygen in Arctic Alaska. *Journal of hazardous materials*, 64(2), 157-165.
- [4] Nykänen, A., Kontio, H., Klutas, O., Penttinen, O. P., Kostia, S., Mikola, J., & Romantschuk, M. (2012). Increasing lake water and sediment oxygen levels using slow release peroxide. *Science of the Total Environment*, 429, 317-324.
- [5] Zhang, X., Gu, X., Lu, S., Miao, Z., Xu, M., Fu, X., & Sui, Q. (2015). Degradation of trichloroethylene in aqueous solution by calcium peroxide activated with ferrous ion. *Journal of hazardous materials*, 284, 253-260.
- [6] Arienzo, M. (2000). Degradation of 2, 4, 6-trinitrotoluene in water and soil slurry utilizing a calcium peroxide compound. *Chemosphere*, 40(4), 331-337.
- [7] Cassidy, D. P., & Irvine, R. L. (1999). Use of calcium peroxide to provide oxygen for contaminant biodegradation in a saturated soil. *Journal of hazardous materials*, 69(1), 25-39.
- [8] Madan, S. S., Upwanshi W, A., & Wasewar, K. L. (2016). Adsorption of α -toluic acid by calcium peroxide nanoparticles. *Desalination and Water*

Treatment, 57(35), 16507-16513.

- [9] Kaewdee, P., Chandet, N., Rujijanagul, G., & Randorn, C. (2016). Multicatalytic properties of nanoparticle CaO_2 synthesized by a novel, simple and economical method for wastewater treatment. *Catalysis Communications*, 84, 151-154.
- [10] Tieckelmann, R. E., & Steele, R. E. (1991). Higher-assay grade of calcium peroxide improves properties of dough. *Food technology (USA)*.
- [11] Cheng, Y. S., Chen, K. Y., & Chou, T. H. (2015). Concurrent calcium peroxide pretreatment and wet storage of water hyacinth for fermentable sugar production. *Bioresource technology*, 176, 267-272.
- [12] Li, Y., Wang, J., Zhang, A., & Wang, L. (2015). Enhancing the quantity and quality of short-chain fatty acids production from waste activated sludge using CaO_2 as an additive. *Water research*, 83, 84-93.
- [13] Senthilraja, A., Krishnakumar, B., Subash, B., Sobral, A. J., Swaminathan, M., & Shanthi, M. (2016). Sn loaded Au–ZnO photocatalyst for the degradation of AR 18 dye under UV-A light. *Journal of Industrial and Engineering Chemistry*, 33, 51-58.
- [14] Myers, R. L. (2007). The 100 most important chemical compounds: a reference guide. ABC-CLIO.
- [15] Esch, T. R., & Bredow, T. (2016). Bulk and surface properties of magnesium peroxide MgO_2 . *Applied Surface Science*, 389, 1202-1207.
- [16] Pardieck, D. L., Bouwer, E. J., & Stone, A. T. (1992). Hydrogen peroxide use to increase oxidant capacity for in situ bioremediation of contaminated soils and aquifers: A review. *Journal of Contaminant Hydrology*, 9(3), 221- 242.
- [17] Joshi, M. M., & Lee, S. (1996). Effect of oxygen amendments and soil pH on bioremediation of industrially contaminated soils. *Energy sources*, 18(3), 233-242.
- [18] Samanta, C. (2008). Direct synthesis of hydrogen peroxide from hydrogen

and oxygen: An overview of recent developments in the process. *Applied Catalysis A: General*, 350(2), 133-149.

- [19] Tundo, P., Anastas, P., Black, D. S., Breen, J., Collins, T. J., Memoli, S., ... & Tumas, W. (2000). Synthetic pathways and processes in green chemistry. Introductory overview. *Pure and applied chemistry*, 72(7), 1207-1228.
- [20] Anastas, P. T., & Warner, J. C. (1998). Principles of green chemistry. *Green chemistry: Theory and practice*, 29-56.
- [21] Gusso, A., Baccin, C., Pinna, F., & Strukul, G. (1994). Platinum-catalyzed oxidations with hydrogen peroxide: enantiospecific Baeyer-Villiger oxidation of cyclic ketones. *Organometallics*, 13(9), 3442-3451.
- [22] Goor, G. (1992). Hydrogen peroxide: manufacture and industrial use for production of organic chemicals. In *Catalytic Oxidations with Hydrogen Peroxide as Oxidant* (pp. 13-43). Springer Netherlands.
- [23] Jones, C. W. (1999). Applications of hydrogen peroxide and derivatives (Vol. 2). Royal Society of Chemistry.
- [24] Zhang, A., Wang, J., & Li, Y. (2015). Performance of calcium peroxide for removal of endocrine-disrupting compounds in waste activated sludge and promotion of sludge solubilization. *water research*, 71, 125-139.
- [25] Khodaveisi, J., Banejad, H., Afkhami, A., Olyaie, E., Lashgari, S., & Dashti, R. (2011). Synthesis of calcium peroxide nanoparticles as an innovative reagent for in situ chemical oxidation. *Journal of hazardous materials*, 192(3), 1437-1440.
- [26] Olyaie, E., Banejad, H., Afkhami, A., Rahmani, A., & Khodaveisi, J. (2012). Development of a cost-effective technique to remove the arsenic contamination from aqueous solutions by calcium peroxide nanoparticles. *Separation and purification technology*, 95, 10-15.
- [27] Olyaie, E., Banejad, H., Rahmani, A. R., Afkhami, A., & Khodaveisi, J. (2012). Feasibility study of using calcium peroxide nanoparticles in arsenic removal from polluted water in agriculture and it's effect on the irrigation

- quality parameters. *Iranian Journal of Health and Environment*, 5(3), 319-330.
- [28] Shipley, H. J., Yean, S., Kan, A. T., & Tomson, M. B. (2009). Adsorption of arsenic to magnetite nanoparticles: effect of particle concentration, pH, ionic strength, and temperature. *Environmental Toxicology and Chemistry*, 28(3), 509-515.
- [29] Chevalier, L., & McCann, C. D. (2008). Feasibility of calcium peroxide as an oxygen releasing compound in treatment walls. *International Journal of Environment and Waste Management*, 2(3), 245-256.
- [30] Bianchi- Mosquera, G. C., Allen- King, R. M., & Mackay, D. M. (1994). Enhanced Degradation of Dissolved Benzene and Toluene Using a Solid Oxygen- Releasing Compound. *Groundwater Monitoring & Remediation*, 14(1), 120-128.
- [31] Vidali, M. (2001). Bioremediation. an overview. *Pure and Applied Chemistry*, 73(7), 1163-1172.
- [32] Qian, Y., Zhou, X., Zhang, Y., Zhang, W., & Chen, J. (2013). Performance and properties of nanoscale calcium peroxide for toluene removal. *Chemosphere*, 91(5), 717-723.
- [33] Karn, B., Kuiken, T., & Otto, M. (2009). Nanotechnology and in situ remediation: a review of the benefits and potential risks. *Environmental health perspectives*, 117(12), 1823-1831.
- [34] Northup, A., & Cassidy, D. (2008). Calcium peroxide (CaO₂) for use in modified Fenton chemistry. *Journal of Hazardous Materials*, 152(3), 1164-1170.
- [35] Zhang, X., Gu, X., Lu, S., Miao, Z., Xu, M., Fu, X., & Sui, Q. (2016). Application of calcium peroxide activated with Fe(II)-EDDS complex in trichloroethylene degradation. *Chemosphere*, 160, 1-6.
- [36] Dillert, R., Cassano, A. E., Goslich, R., & Bahnemann, D. (1999). Large scale studies in solar catalytic wastewater treatment. *Catalysis Today*, 54(2),

- [37] Borges, M. E., Sierra, M., Cuevas, E., García, R. D., & Esparza, P. (2016). Photocatalysis with solar energy: Sunlight-responsive photocatalyst based on TiO₂ loaded on a natural material for wastewater treatment. *Solar Energy*, 135, 527-535.
- [38] Lam, S. M., Sin, J. C., Abdullah, A. Z., & Mohamed, A. R. (2012). Degradation of wastewaters containing organic dyes photocatalysed by zinc oxide: a review. *Desalination and Water Treatment*, 41(1-3), 131-169.
- [39] Song, Y., Xu, H., Yan, J., Wang, C., Cai, G., Li, H., & Lei, Y. (2014). Preparation, Characterization and Photocatalytic Activity of AgBr/BiVO₄ Composite Photocatalyst. *Journal of nanoscience and nanotechnology*, 14(9), 6816-6823.
- [40] Doan, A. T., Thi, X. D. N., Nguyen, P. H., Thi, V. N. N., Kim, S. J., & Vo, V. (2014). Graphitic gC₃N₄-WO₃ Composite: Synthesis and Photocatalytic Properties. *Bulletin of the Korean Chemical Society*, 35(6), 1794-1798.
- [41] Rao, N. N., Chaturvedi, V., & Puma, G. L. (2012). Novel pebble bed photocatalytic reactor for solar treatment of textile wastewater. *Chemical Engineering Journal*, 184, 90-97.
- [42] Borges, M. E., Sierra, M., Cuevas, E., García, R. D., & Esparza, P. (2016). Photocatalysis with solar energy: Sunlight-responsive photocatalyst based on TiO₂ loaded on a natural material for wastewater treatment. *Solar Energy*, 135, 527-535.
- [43] Wang, C., Shi, H., & Li, Y. (2011). Synthesis and characteristics of natural zeolite supported Fe³⁺-TiO₂ photocatalysts. *Applied Surface Science*, 257(15), 6873-6877.
- [44] Villegas, M. L., Bertolotti, S. G., Previtali, C. M., & Encinas, M. V. (2005). Reactions of Excited States of Phenoxazin- 3- one Dyes with Amino Acids. *Photochemistry and photobiology*, 81(4), 884-890.
- [45] Bueno, C., Villegas, M. L., Bertolotti, S. G., Previtali, C. M., Neumann, M.

G., & Encinas, A. V. (2002). The Excited- State Interaction of Resazurin
and

Resorufin with Amines in Aqueous Solutions. Photophysics and
Photochemical Reaction. *Photochemistry and photobiology*, 76(4), 385-390.

- [46] Novotortsev, V. M., Mel'nikov, I. O., Tripol'skaya, T. A., Busygina, N. S., Rodionova, S. A., & Artemov, A. V. (2012). Examination of the disinfecting properties of calcium peroxide and its suitability for improving hydrodynamic characteristics of surface water bodies. *Russian Journal of Applied Chemistry*, 85(5), 726-730.
- [47] Nykänen, A., Kontio, H., Klutas, O., Penttinen, O. P., Kostia, S., Mikola, J., & Romantschuk, M. (2012). Increasing lake water and sediment oxygen levels using slow release peroxide. *Science of the Total Environment*, 429, 317-324.
- [48] Haynes, W. M. (Ed.). (2014). CRC handbook of chemistry and physics. CRC press.
- [49] Buxton, G. V., Greenstock, C. L., Helman, W. P., & Ross, A. B. (1988). Critical review of rate constants for reactions of hydrated electrons, hydrogen atoms and hydroxyl radicals ($\cdot\text{OH}/\cdot\text{O}-$) in aqueous solution. *Journal of physical and chemical reference data*, 17(2), 513-886.
- [50] Bossmann, S. H., Oliveros, E., Göb, S., Siegwart, S., Dahlen, E. P., Payawan, L., & Braun, A. M. (1998). New evidence against hydroxyl radicals as reactive intermediates in the thermal and photochemically enhanced Fenton reactions. *The Journal of Physical Chemistry A*, 102(28), 5542-5550.
- [51] Afanas'ev, I. B. (1991). Superoxide ion: chemistry and biological implications (Vol. 2). CRC Press.
- [52] Wang, H., Zhao, Y., Li, T., Chen, Z., Wang, Y., & Qin, C. (2016). Properties of Calcium Peroxide for Release of Hydrogen Peroxide and Oxygen: A Kinetics Study. *Chemical Engineering Journal*.