

## DAFTAR PUSTAKA

- Akovali, G., 2012, *Plastic Materials: Polyvinyl Chloride (PVC)*. In Pacheco-Torgal, F., Jalali, S., and Fucic, A., *Toxicity of Building Materials*, Woodhead Publishing, Cambridge.
- Aluigi, A., Zoccola, M., Vineis, C., Tonin, C., Ferrero, F., and Canetti, M., 2007, Study on The Structure and Properties of Wool Keratin Regenerated from Formic Acid, *Int. J. Biol. Macromol.*, 41(3), 266-273.
- Aramendia, M.A., Burch, R., and Garcia, I.M., 2001, The Effect of The Addition of Sodium Compounds in The Liquid-Phase Hydrodechlorination of Chlorobenzene Over Palladium Catalysts, *Appl. Catal. B: Environ.*, 31, 163-171.
- Baishya, P., and Mahanta, D.K., 2013, Improvised Segregation of Recyclable Materials In Guwahati City, India: A Case Study, *Clar. Int. Multidiscip. J.*, 2, 46-52.
- Berzelius, J., 1839, *Lehrbuch der Chemie*, Third Edition, Arnoldische Buchhandlung, Leipzig.
- Bragulla, H.H., and Homberger, D.G., 2009, Structure and Functions of Keratin Proteins in Simple, Stratified, Keratinized and Cornified Epithelia, *J. Anat.*, 214(4), 516-559.
- Castro, A., Carneiro, C., Vilarinho, C., Soares, D., Maçães, C., Sousa, C., and Castro, F., 2012, Study of a Two Steps Process for the Valorization of PVC-Containing Wastes, *Waste Biomass Valorization*, 4(1), 55-63.
- Castro, A., Soares, D., Vilarinho, C., and Castro, F., 2012, Kinetics of Thermal Dechlorination of PVC Under Pyrolytic Conditions, *Waste Manage.*, 32(5), 847-851.
- Cha, J.S., Park, S.H., Jung, S.C., Ryu, C., Jeon, J.K., Shin, M.C., and Park, Y.K., 2016, Production and Utilization of Biochar: A Review, *J. Ind. Eng. Chem.*, 40, 1-15.
- Cheng, H., Zhu, X., Zhu, C., Qian, J., Zhu, N., Zhao, L., and Chen, J., 2008, Hydrolysis Technology of Biomass Waste to Produce Amino Acids in Sub-Critical Water, *Bioresour. Technol.*, 99, 3337-3341.
- Costner, P., 1998, Correlation of Chlorine Input and PCDD/PCDF Emissions at A Full-Scale Hazardous Waste Incinerator, *Organohalog. Compd.*, 36, 147-152
- Darwin, C., 1881, *The Formation of Vegetable Mould, Through the Action of Worms, With Observations on Their Habits*, John Murray, London.
- Davidson, I., 2009, Diverse Uses of Feathers with Emphasis on Diagnosis of Avian Viral Infections and Vaccine Virus Monitoring, *Rev. Bras. Cienc. Avic.*, 11, 139-148.

- Donar, Y.O., Çağlar, E., and Sinag, A., 2016, Preparation and Characterization of Agricultural Waste Biomass Based Hydrochars, *Fuel*, 183, 366-372.
- Endo, K., and Emori, N., 2001, Dechlorination of Poly (Vinyl Chloride) without Anomalous Units Under High Pressure and At High Temperature in Water, *Polym. Degrad. Stab.*, 74, 113-117.
- Eyng, C., Nunes, R.V., Rostagno, H.S., Albino, L.F.T., Nunes, C.G.V., Pozza, P.C., 2012, Composição Química e Aminoacídica e Coeficientes de Digestibilidade Verdadeira dos Aminoácidos de Farinhas de Penas e Sangue Determinados em Galos Cecectomizados, *R. Bras. Zootec.*, 41(1), 80-85.
- Firmantianingrum, E.J., 2014, Humin Sintesis sebagai Penangkap dan Penyimpan Karbon dan Nitrogen serta sebagai Solusi Pengurangan Emisi Gas Rumah Kaca Sektor Pertanian, *Skripsi*, Departemen Kimia FMIPA UGM, Yogyakarta.
- Font, R., Gálvez, A., Moltó, J., Fullana, A., and Aracil, I., 2010, Formation of Polychlorinated Compounds in The Combustion of PVC with Iron Nanoparticles, *Chemosphere*, 78(2), 152-159.
- Funke, A., and Ziegler, F., 2010, Hydrothermal Carbonization of Biomass: A Summary and Discussion of Chemical Mechanisms for Process Engineering, *Biofuels Bioprod.*, 4(2), 160-177.
- Gasco, G., Ferreira J.P., Álvarez, M.L., Saa, A., and Méndez, A., 2018, Biochars and Hydrochars Prepared by Pyrolysis and Hydrothermal Carbonisation of Pig Manure, *Waste Manage.*, 79, 395-403.
- Ghosh, A., Clerens, S., Deb-Choudhury, S., and Dyer, J.M., 2014, Thermal Effects of Ionic Liquid Dissolution on The Structures and Properties of Regenerated Wool Keratin, *Polym. Degrad. Stab.*, 108, 108-115.
- Gupta, A., Kamarudin, N.B., Chua, C.Y.G., and Yunus, R., 2012, Extraction of Keratin Protein from Chicken Feather, *J. Chem. Chem. Eng.*, 6, 732-737.
- Handayani, I.P., 2001, Fraksional Pool Bahan Organik Tanah Labil pada Lahan Hutan dan Lahan Pasca Deforestasi, *JIPI*, 3(2), 75-83.
- Hartatik, W., dan Adiningsih, J.S., 2003, Evaluasi Rekomendasi Pemupukan NPK pada Lahan Sawah yang Mengalami Pelandaian Produktivitas (Levelling Off), *Prosiding Seminar Nasional Inovasi Teknologi Sumberdaya Tanah dan Iklim*, 14-15 Oktober 2003, Bogor.
- Hayes, M.H.B., 2010, Evolution of Modern Concepts of The Compositions of Humic Substances, *15th International Humic Substances Society (IHSS)*, 27 June-2 July 2010, Puerto de la Cruz.
- Hayes, M.H.B., and Swift, R.S., 1978, *The Chemistry of Soils Organic Colloids in the Chemistry of Soil Constituents*, John Wiley & Sons Ltd., Chichester.

- Hayes, M.H.B., Swift, R.S., Byrne, C.M., Song, G., and Simpson, A.J., 2010, Humin: the Simplest of the Humic Fractions, *International Humic Substances Society (IHSS)*, 27 June-2 July 2010, Puerto de la Cruz.
- Hayes, M.H.B, Mylotte, R., and Swift R.S., 2017, Humin: Its Composition and Importance in Soil Organic Matter, *Adv. Agron.*, 143, 47-138.
- Hedges, J.I., and Keil, R.G., 1995, Sedimentary Organic Matter Preservation: An Assessment and Speculative Synthesis, *Mar. Chem.*, 49, 81-115.
- Hernandez, A.L.M., Santos, C.V., and Icaza, M.D., 2005, Microstructural Characterisation of Keratin Fibres from Chicken Feathers, *Int. J. Environ. Poll.*, 23, 162-178.
- Hlavay, J., Jonas, K., Elek, S., and Inczedy, J., 1977, Characterization of The Particle Size and The Crystallinity of Certain Minerals by Infrared Spectrophotometry and Other Instrumental Methods, *Clays Clay Miner.*, 25, 451-456.
- Hofman, G., and Cleemput, O.V., 2004, Soil and Plant Nitrogen, *International Fertilizer Industry Association*, September 2004, Paris.
- Huang, N., Zhao, P., Ghoshc, S., and Feduykhin, A., 2019, Co-Hydrothermal Carbonization of Polyvinyl Chloride and Moist Biomass to Remove Chlorine and Inorganics for Clean Fuel Production, *Appl. Energy*, 240, 882-892.
- Joardar, J.C., and Rahman, M.M., 2018, Poultry Feather Waste Management and Effects On Plant Growth, *Int. J. Recycl. Org. Waste Agric.*, 21, 67-75.
- Kafilzadeh, F., 2015, Assessment of Organochlorine Pesticide Residues in Water, Sediments and Fish from Lake Tashk, Iran, *Achiev. Life Sci.*, 9(2), 107-111.
- Karama, A.S., Marzuki, A.R., dan Manwan, I., 1990, Penggunaan Pupuk Organik pada Tanaman Pangan, *Prosiding Lokakarya Nasional Efisiensi Pupuk V*, 12-13 Nopember 1990, Cisarua.
- Kelly, G.C., Chang, V.S., Agbogbo, F.K., and Holtzapple, M.T., 2006, Lime Treatment of Keratinous Materials for The Generation of Highly Digestible Animal Feed: 1. Chicken Feathers, *Bioresour. Technol.*, 97, 1337-1343.
- Kenworthy, I.P., and Hayes, M.H.B., 1997, *Investigations of Some Structural Properties of Humic Substances by Fluorescence Quenching*. In Hayes, M.H.B., and Wilson, W.S., *Humic Substances, Peats, and Sludges: Health and Environmental Aspects*, Royal Society of Chemistry, Cambridge.
- Kerner, M., Hohenberg, H., Ertl, S., Reckermann, M., and Spitzzy, A., 2003, Self-Organization of Dissolved Organic Matter to Micelle-Like Microparticles in River Water, *Nature*, 422, 150-154.

- Kielland, K., 1994, Amino Acid Absorption by Arctic Plants: Implications for Plant Nutrition and Nitrogen Cycling, *Ecology*, 75, 2373-2383.
- Kim, D., Lee, K., and Park, K.Y., 2014, Hydrothermal Carbonization of Anaerobically Digested Sludge for Solid Fuel Production and Energy Recovery, *Fuel*, 130, 120-125.
- Kuncaka, A. 2013. Slow Release Organic Paramagnetic (SROP) Fertilizer sebagai Model Humus Sintetis Untuk Mengantarkan Terwujudnya Industri Pertanian Raksasa Nasional yang Berkelanjutan, *Pidato Dies Natalis Universitas Gadjah Mada ke-58 Fakultas Matematika dan Ilmu Pengetahuan Alam Universitas Gadjah Mada*, 19 Desember 2013. Yogyakarta
- Kuncaka, A., 2014, *Metode Memproduksi Pupuk Organik Paramagnetik Pelepasan Lambat (Pupuk Slow Release Organic Paramagnetic/Pupuk SROP)*, Direktorat Jendral Hak Kekayaan Intelektual, Kementerian Hukum dan Hak Asasi Manusia Republik Indonesia, No. Pendaftaran Paten P00201401530.
- Lee, J.G., Yoon, H.Y., Cha, J.Y., Kim, W.Y., Kim P.J., and Jeon J.R., 2019, Artificial Humification of Lignin Architecture: Top-Down and Bottom-Up Approaches, *Biotechnol. Adv.*, 37, 1-14.
- Libra, J.A., Ro, K.S., Kammann, C., Funke, A., Berge, N.D., Neubauer, Y., Titirici, M.M., Fühner, C., Bens, O., Kern, J., and Emmerich, K.H., 2014. Hydrothermal Carbonization of Biomass Residuals: A Comparative Review of The Chemistry, Processes and Applications of Wet and Dry Pyrolysis, *Biofuels*, 2, 71–106.
- Litewka, J.D., Lazarczyk, A., Halubiec, P., Szafranski, O., Karnas, K., and Karewicz, A., 2019, Superparamagnetic Iron Oxide Nanoparticles—Current and Prospective Medical Applications, *Materials*, 12(4), 617-643.
- Liu, Z., and Balasubramanian, R., 2014, Upgrading of Waste Biomass by Hydrothermal Carbonization (HTC) and Low Temperature Pyrolysis (LTP): A Comparative Evaluation, *Appl. Energy*, 114, 857–864.
- Lovley, D.R., Coates, J.D., Blunt-Harris, E.L., Philips, E.J.P., and Woodward, J.C., 1996, Humic Substances as Electron Acceptors for Microbial Respiration, *Nature*, 382, 445–448.
- Ma, D., Feng, Q., Chen, B., Cheng, X., Chen, K., Li, J., 2019, Insight Into Chlorine Evolution During Hydrothermal Carbonization of Medical Waste Model, *J. Hazard. Mater.*, 380, 1-9.
- Ma, X., Liu, Y., and Li, X., 2015, Water: The Most Effective Solvent for Liquid-Phase Hydrodechlorination of Chlorophenols Over Raney Ni Catalyst, *Appl. Catal. B: Environ.*, 165, 351-359.
- Magdziarz, A., Wilk, M., and Wadzyk, M., 2020, Pyrolysis of Hydrochar Derived from Biomass – Experimental Investigation, *Fuel*, 267, 1-10.

- Maillard, L.C., 1917, Identite des Materies Humiques de Syntheses Avec les Materies Humiques Naturelles, *Ann. Chim.*, 7, 113-152.
- Malicka, M.Z., Rutkowski, P., and Szczepaniak, W., 2015, Recovery of Copper from PVC Multiwire Cable Waste by Steam Gasification, *Waste Manage.*, 46, 488-496.
- McCann J.M., Woods, W.I., and Meyer, D.W., 2001, *Organic Matter and Anthrosols in Amazonia: Interpreting The Amerindian Legacy*. In Rees, R.M., Ball, B.C., Campbell, C.D., and Watson, C.A., *Sustainable Management of Soil Organic Matter*, CABI, New York.
- McKay, G., 2002, Dioxin Characterisation, Formation and Minimisation during Municipal Solid Waste Incineration: Review, *Chem. Eng. J.*, 86, 343–368.
- Melillo, J.M., 1981, *Nitrogen Cycling in Deciduous Forests*. In Clark, F.E., and Rosswall, T., *Terrestrial Nitrogen Cycles: Processes, Ecosystem Strategies and Management Impacts*, Ecological Bullins, Stockholm.
- Miranda, R., Pakdel, H., Roy, C., and Vasile, C., 2001, Vacuum Pyrolysis of Commingled Plastics Containing PVC II. Product Analysis, *Polym. Degrad. Stab.*, 73(1), 47-67.
- Mittala, A., Ahmad, R., and Hasan, I., 2016, Iron Oxide-Impregnated Dextrin Nanocomposite: Synthesis and Its Application for The Biosorption of Cr(VI) Ions from Aqueous Solution, *Desalination Water Treat.*, 57, 15133-15145.
- Mohinuzzaman, M., Yuan, J., Yang, X., Senesi, N., Li, S.L., Ellam, R.M., Mostofa, K.M.G., and Liu, C.Q., 2020, Insights Into Solubility of Soil Humic Substances and Their Fluorescence Characterisation in Three Characteristic Soils, *Sci. Total Environ.*, 720, 1-14.
- Moller, M., Nilges, P., Harnisch, F., and Schroder, U., 2011, Subcritical Water as Reaction Environment: Fundamentals of Hydrothermal Biomass Transformation, *ChemSusChem*, 4(5), 566-579.
- Morsy, M.A., Shwehdi, M.H., and Abu-Gurain, A.M., 2003, Novel Exploration of Cable Insulation Materials Using Electron Spin Resonance Spectroscopy, *Annual Report Conference on Electrical Insulation and Dielectric Phenomena*, 19-22 October 2003, Albuquerque.
- Mulia, D.S., Yuliningsih, R.T., Maryanto, H., dan Purbomartono, C., 2016, Pemanfaatan Limbah Bulu Ayam Menjadi Bahan Pakan Ikan dengan Fermentasi Bacillus Subtilis, *J. Mns. Lingk.*, 23(1), 49-57.
- Mullins, C. and Tite, M.S., 1973, Magnetic Viscosity, Quadrature Susceptibility and Frequency Dependence of Susceptibility in Single-Domain Assemblies of Magnetite and Maghemite, *J. Geophys. Res.*, 78, 804–809.
- Muslem, Kuncaka, A., Himah, T.N., and Roto, R., 2019, Preparation of Char-Fe<sub>3</sub>O<sub>4</sub> Composites from Polyvinyl Chloride with Hydrothermal and

- Hydrothermal-Pyrolysis Carbonization Methods as Co(II) Adsorbents, *Indones. J. Chem.*, 19(4), 835-840.
- Nagai, Y., Smith, R.L., Inomata, H., and Arai, K., 2007, Direct Observation of Polyvinylchloride Degradation in Water at Temperatures Up to 500 °C and at Pressures Up to 700 Mpa, *J. Appl. Polym. Sci.*, 106, 1075-1086.
- Nasholm, T., Kielland, K., and Ganeteg, U., 2009, Uptake of Organic Nitrogen by Plants, *New Phytol.*, 182, 31-48.
- Nurdiawati, A., Nakhshiniey, B., Zaini, I.N., Saidov, N., Takahashi, F., and Yoshikawa, K., 2017, Characterization of Potential Liquid Fertilizers Obtained by Hydrothermal Treatment of Chicken Feathers, *Environ. Prog. Sustain. Energy*, 37(1), 375-382.
- Park, K.Y., Lee, K.Y., and Kim, D.G., 2018, Characterized Hydrochar of Algal Biomass for Producing Solid Fuel Through Hydrothermal Carbonization, *Bioresour. Technol.*, 258, 119-124.
- Petit, R.E., 2002, *Organic Matter, Humus, Humate, Humic Acid, Fulvic Acid and Humin: Their Importance in Soil Fertility and Plant Health*, A & M University, Texas.
- Piccolo, A., 1996, *Humus and Soil Conservation*. In Piccolo, A., *Humic Substances in Terrestrial Ecosystems*, Elsevier, Amsterdam
- Piccolo, A., 2001, The Supramolecular Structure of Humic Substances, *Soil Sci.*, 166, 810-832.
- Piccolo, A., 2002, The Supramolecular Structure of Humic Substance: A Novel Understanding of Humus Chemistry and Implications in Soil Science, *Adv. Agron.*, 75, 57-134.
- Piccolo, A., and Mbagwu, J.S.C., 1999, Role of Hydrophobic Components of Soil Organic Matter in Soil Aggregate Stability, *Soil Sci. Soc. Am. J.*, 63, 1801-1810.
- Piskaeva, A.I., Dolganyuk, V.F., Noskova, S.Y., and Chaplygin, O.S., 2017, Estimation of Quality and Efficiency of Application of A Poultry Feed Supplement in Feeding Hubbard Broiler Chickens, *Foods Raw Mater.*, 5(2), 137-144.
- Poerschmann, J., Weiner, B., Woszidlo, S., Koehler, R., and Kopinke, F.D., 2015, Hydrothermal Carbonization of Poly(Vinyl Chloride), *Chemosphere*, 119, 682-689
- Qi, Y., He, J., Xiu, F.R., Nie, W., and Chen, M., 2018, Partial Oxidation Treatment of Waste Polyvinyl Chloride in Critical Water: Preparation of Benzaldehyde/Acetophenone and Dechlorination, *J. Clean. Prod.*, 196, 331-339.
- Ragaert, K., Delva, L., and Geem, K.V., 2017, Mechanical and Chemical Recycling of Solid Plastic Waste, *Waste Manage.*, 69, 24-58.

- Ranke, H., Blohse, D., Lehmann, H., and Fettig, J., 2009, Hydrothermal Carbonization of Organic Waste, *Twelfth International Waste Management and Landfill Symposium*, 5-9 October 2009, Sardinia.
- Reibmann, D., Threan, D., and Bezama, A., 2018. Hydrothermal Processes as Treatment Paths for Biogenic Residues in Germany: A Review of The Technology, Sustainability and Legal Aspects, *J. Clean. Prod.*, 172, 239-252.
- Reza, M.T., Rottler, E., Herklotz, L., and Wirth, B., 2015, Hydrothermal Carbonization (HTC) of Wheat Straw: Influence of Feedwater pH Prepared by Acetic Acid and Potassium Hydroxide, *Bioresour. Technol.*, 182, 336–344.
- Ros, G.G., Soler, A., Aracil, I., Rico, M.F.G., 2020, Dechlorination of Polyvinyl Chloride Electric Wires by Hydrothermal Treatment Using  $K_2CO_3$  in Subcritical Water, *Waste Manage.*, 102, 204-211.
- Ruiz, H.A., Rodriguez-Jasso, R.M., Fernandes, B.D., Vicente, A.A., and Teixeira, J.A., 2013, Hydrothermal Processing, as An Alternative for Upgrading Agriculture Residues and Marine Biomass According to The Biorefinery Concept: A Review, *Renew. Sust. Energ. Rev.*, 21, 35-51.
- Sa'adah, N., Hastuti, R., dan Prasetya, N.B.A., 2013, Pengaruh Asam Formiat pada Bulu Ayam sebagai Adsorben Terhadap Penurunan Kadar Larutan Zat Warna Tekstil Remazon Golden Yellow RNL, *J. Kim. Sains Apl.*, 1(1), 202-209.
- Saidy, A.R., 2018, *Bahan Organik Tanah: Klasifikasi, Fungsi dan Metode Studi*, Lambung Mangkurat University Press, Banjarmasin.
- Salminen, E., and Rintala, J., 2002, Anaerobic Digestion of Organic Solid Poultry Slaughterhouse Waste—A Review, *Bioresour. Technol.*, 83, 13-26.
- Sanchez, P.A., 1976, *Properties and Management of Soils In The Tropics*, John Wiley & Sons, New York.
- Saravanan, K., and Dhurai, B., 2012, Exploration on The Amino Acid Content and Morphological Structure in Chicken Feather Fibre, *J. Text. Appar. Technol. Manag.*, 7(3), 1-6.
- Sari, E.P., Putri, I.S.T., Putri, R.A., Imanda, S., Elfidasari, D., dan Puspitasari, R.L., 2015, Pemanfaatan Limbah Bulu Ayam sebagai Pakan Ternak Ruminansia, *Prosiding Seminar Nasional Masyarakat Biodiversitas Indonesia*, Maret 2015, Jakarta.
- Sato, N., Quitain, A.T., Kang, K., Daimon, H., and Fujie, K., 2004, Reaction Kinetics of Amino Acid Decomposition in High-Temperature and High-Pressure Water, *Ind. Eng. Chem.*, 43(13), 3217-3222.
- Schreiner, O., and Shorey, E.C., 1910, *Chemical Nature of Soil Organic Matter*, United States Department of Agriculture, Washington, D.C.

- Scott, D.T., McKnight, D.M., Blunt-Harris, E.L., Kolesar, S.E., and Lovley, D.R., 1998, Quinone Moieties Act as Electron Acceptors in The Reduction of Humic Substances by Humics Reducing Microorganisms, *Environ. Sci. Technol.*, 32, 2984-2989.
- Senesi, N., and Loffredo, E., 1999, *The Chemistry of Soil Organic Matter*, CRC Press, Boca Raton.
- Setyorini, D., Widowati, L.R., dan Rochayati, S., 2004, *Teknologi Pengelolaan Hara Lahan Sawah Intensifikasi*, Pusat Penelitian Tanah dan Agroklimat, Bogor.
- Shavandi, A., Silva, T.H., Bekhit, A.A., and Bekhit, A.E.A., 2017, Keratin: Dissolution, Extraction and Biomedical Application, *Biomater. Sci.*, 5, 1699-1735.
- Shen, Y., 2016, Dechlorination of Poly(Vinyl Chloride) Wastes Via Hydrothermal Carbonization with Lignin for Clean Solid Fuel Production, *Ind. Eng. Chem. Res.*, 55, 11638-11644.
- Shen, Y., Yu, S., Ge, S., Chen, X., Ge, X., and Chen, M., 2017, Hydrothermal Carbonization of Medical Wastes and Lignocellulosic Biomass for Solid Fuel Production from Lab-Scale to Pilot-Scale, *Energy*, 118, 312-323.
- Shen, Y., Zhao, R., Wang, J., Chen, X., Ge, X., and Chen, M., 2016, Waste-To-Energy: Dehalogenation of Plastic-Containing Wastes, *Waste Manage.*, 49, 287-303.
- Sileika, T.S., Barrett, D.G., Zhang, R., Lau, K.H.A., and Messersmith, P.B., 2013, Colorless Multifunctional Coatings Inspired by Polyphenols Found in Tea, Chocolate, and Wine, *Angew. Chem. Int.*, 52, 10766-10770.
- Simpson, A.J., 2002, Determining The Molecular Weight, Aggregation, Structures and Interactions of Natural Organic Matter Using Diffusion Ordered Spectroscopy, *Magn. Reson. Chem.*, 40(13), S72-S82.
- Simpson, B.K., Aryee, A.N., and Toldrá, F., 2020, *Byproducts from Agriculture and Fisheries: Adding Value for Food, Feed, Pharma and Fuels*, John Wiley & Sons, Chichester.
- Sobucki, L., Ramos, R.F., Gubiani, E., Brunetto, G., Kaiser, D.R., and Daroit, D.J., 2019, Feather Hydrolysate as A Promising Nitrogen-Rich Fertilizer for Greenhouse Lettuce Cultivation, *Int. J. Recycl. Org. Waste Agric.*, 27, 94-103.
- Spitzer, R.Y., Mau, V., and Gross, A., 2018, Using Hydrothermal Carbonization for Sustainable Treatment and Reuse of Human Excreta, *J. Clean. Prod.*, 205, 955-963.
- Stevenson, F.J., 1982, *Organic Forms of Soil Nitrogen*. In Stevenson, F. J., *Nitrogen in Agricultural Soils*, America Society of Agronomy, Madison.

- Stevenson, F.J., 1994, *Humus Chemistry: Genesis, Composition, Reaction*, Second Edition, John Wiley & Sons, New York.
- Stevenson, F.J., and Cole M.A., 1999, *Cycles of Soil: Carbon, Nitrogen, Phosphorus, Sulfur, Micronutrients*, Second Edition, John Wiley & Sons, New York.
- Suresh, S.S., Mohanty, S., and Nayak, S.K., 2017, Preparation and Characterization of Recycled Blends Using Poly(Vinyl Chloride) and Poly(Methyl Methacrylate) Recovered From Waste Electrical And Electronic Equipments, *J. Clean. Prod.*, 149, 863-873.
- Swift, R.S., and Posner, A.M., 1971, Gel Chromatography of Humic Acid, *J. Soil Sci.*, 22, 237-249.
- Tan, T.C., and Tai, M.Y., 1983, Amino Acids from Poultry Feather Waste, *Can. Inst. Food Technol. J.*, 16(2), 148-150.
- Titirici, M.M., Thomas, A., and Antonietti, M., 2007, Back in The Black: Hydrothermal Carbonization of Plant Material as An Efficient Chemical Process to Treat The CO<sub>2</sub> Problem?, *New J. Chem.*, 31, 787-789.
- Tongamp, W., Kano, J., Zhang, Q., and Saito, F., 2008, Simultaneous Treatment of PVC and Oyster-Shell Wastes by Mechanochemical Means, *Waste Manage.*, 28, 484-488.
- Tradler, S.B., Mayr, S., Himmelsbach, M., Priewasser, R., Baumgartner, W., and Stadlera, A.T., 2018, Hydrothermal Carbonization as An All-Inclusive Process for Food-Waste Conversion, *Bioresour. Technol.*, 2, 77-83.
- Trusov, A. G., 1914, The Humification of Compounds Which are Constituents of Plants, *Sel. Khoz. Lesovod.*, 2, 122-135.
- Vasconcelos, A., Freddi, G., and Paulo, A.C., 2008, Biodegradable Materials Based on Silk Fibroin and Keratin, *Biomacromolecules*, 9(4), 1299-1305.
- Wallerius, J.G., 1761, *Agriculturae Fundamenta Chemical*, De Homo Diss, Uppsala.
- Wang, Y., and Zhang, F.S., 2012, Degradation of Brominated Flame Retardant In Computer Housing Plastic by Supercritical Fluids, *J. Hazard. Mater.*, 205, 156-163.
- Xiu, L.S., Hui, W.Z., Fang, M.Y., and Qing, L.S., 2014, Soil Organic Nitrogen and Its Contribution to Crop Production, *J. Integr. Agric.*, 13(10), 2061-2080.
- Yang, F., Zhang, S., Cheng, K., and Antonietti, M., 2019, A Hydrothermal Process To Turn Waste Biomass Into Artificial Fulvic and Humic Acids for Soil Remediation, *Sci. Total Environ.*, 686, 1140-1151.
- Ye, L., Qi, C., Hong, J., and Ma, X., 2017, Life Cycle Assessment of Polyvinyl Chloride Production and Its Recyclability in China, *J. Clean. Prod.*, 142, 2965-2972.

- Yu, J., Sun, L., Ma, C., Qiao, Y., and Yao, H., 2016, Thermal Degradation of PVC: A Review, *Waste Manage.*, 48, 300-314.
- Zhang, R.Z., Luo, Y.H., and Yin, R.H., 2018, Experimental Study On Dioxin Formation In An MSW Gasification-Combustion Process: An Attempt for The Simultaneous Control of Dioxins And Nitrogen Oxides, *Waste Manage.*, 82, 292-301.
- Zhao, P., Li, T., Yan, W., and Yuan, L., 2017, Dechlorination of PVC Wastes by Hydrothermal Treatment Using Alkaline Additives, *Environ. Technol.*, 39, 977-985.