

REFERENCES

- Bamdad, H., Hawboldt, K., & MacQuarrie, S. (2018). A review on common adsorbents for acid gases removal: Focus on biochar. *Renewable and Sustainable Energy Reviews*, 81, 1705-1720.
- Brandt, A., Gräsvik, J., Hallett, J.P., Welton, T., 2013. Deconstruction of lignocellulosic biomass with ionic liquids. *Green Chem.* 15, 550.
- Cheremisinoff, N. P., & Rosenfeld, P. E. (2010). Sources of air emissions from pulp and paper mills. In *Handbook of Pollution Prevention and Cleaner Production* (pp. 179–259). Elsevier.
- Chopda, R., Ferreira, J. A., & Taherzadeh, M. J. (2020). Biorefining Oat Husks into High-Quality Lignin and Enzymatically Digestible Cellulose with Acid-Catalyzed Ethanol Organosolv Pretreatment. *Processes*, 8(4), 435.
- Chotirotsukon, C., Raita, M., Champreda, V., Laosiripojana, N., 2019. Fractionation of sugarcane trash by oxalic-acid catalyzed glycerol-based organosolv followed by mild solvent delignification. *Ind. Crop Prod.* 141.
- Ferreira, J. A., Lennartsson, P. R., Edebo, L., & Taherzadeh, M. J. (2013). Zygomyces-based biorefinery: Present status and future prospects. *Bioresource Technology*, 135, 523–532.
- Ferreira, J. A., & Taherzadeh, M. J. (2020). Improving the economy of lignocellulose-based biorefineries with organosolv pretreatment. *Bioresource Technology*, 299, 122695.
- Food and Agriculture of United Nations (2018). Retrieved 10-06-2020, 2020, from <http://www.fao.org/faostat/en/#data/QC>
- Ingram, T., Wormeyer, K., Lima, J. C., Bockemuhl, V., Antranikian, G., Brunner, G., & Smirnova, I. (2011). Comparison of different pretreatment methods for lignocellulosic materials. Part I: conversion of rye straw to valuable products. *Bioresource Technol*, 102(8), 5221-5228.
- Kalogiannis, K.G., Matsakas, L., Aspden, J., Lappas, A.A., Rova, U., Christakopoulos, P., 2018. Acid assisted organosolv delignification of beechwood and pulp conversion towards high concentrated cellulosic ethanol via high gravity enzymatic hydrolysis and fermentation. *Molecules* 23 (7), 1–18.
- Kalogiannis, K.G., Matsakas, L., Lappas, A.A., Rova, U., Christakopoulos, P., 2019. Aromatics from beechwood organosolv lignin through thermal and catalytic pyrolysis. *Energies* 12 (9).
- Kim, T.H., Ryu, H.J., Oh, K.K., 2019. Improvement of organosolv fractionation performance for rice husk through a low acid-catalyzed. *Energies* 12 (9).
- Lee, J.-W., Rodrigues, R. C. L. B., Kim, H. J., Choi, I.-G., & Jeffries, T. W. (2010). The roles of xylan and lignin in oxalic acid pretreated corncob during separate enzymatic hydrolysis and ethanol fermentation. *Bioresource Technology*, 101(12), 4379–4385.

- Martín-Sampedro, R., Eugenio, M.E., Fillat, Ú., Martín, J.A., Aranda, P., Ruiz-Hitzky, E., Ibarra, D., Wicklein, B., 2019. Biorefinery of lignocellulosic biomass from an elm clone: Production of fermentable sugars and lignin-derived biochar for energy and environmental applications. *Energy Technol.* 7 (2), 277–287.
- McDonough, T. J. (1992). *The Chemistry of Organosolv Delignification*. Institute of Paper Science and Technology Atlanta, Georgia
- Millati, R., Wikandari, R., Ariyanto, T., Putri, R. U., & Taherzadeh, M. J. (2020). Pretreatment technologies for anaerobic digestion of lignocelluloses and toxic feedstocks. *Bioresource Technology*, 304, 122998.
- Mondylaksita, K., Ferreira, J. A., Millati, R., Budhijanto, W., Niklasson, C., & Taherzadeh, M. J. (2020). Recovery of High Purity Lignin and Digestible Cellulose from Oil Palm Empty Fruit Bunch Using Low Acid-Catalyzed Organosolv Pretreatment. *Agronomy*, 10(5), 674.
- Mosier, N., Wyman, C., Dale, B., Elander, R., Lee, Y. Y., Holtzapple, M., & Ladisch, M. (2005). Features of promising technologies for pretreatment of lignocellulosic biomass. *Bioresour Technol*, 96(6), 673-686.
- Oliveira, J. P. de, Bruni, G. P., Lima, K. O., Halal, S. L. M. E., Rosa, G. S. da, Dias, A. R. G., & Zavareze, E. da R. (2017). Cellulose fibers extracted from rice and oat husks and their application in hydrogel. *Food Chemistry*, 221, 153–160.
- Olsson, Johanna. (2013). Separation of lignin and hemicelluloses from black liquor and pre-treated black liquor by nanofiltration. *Department of Chemical Engineering, Lund University*
- O’Sullivan, A.C., 1997. Cellulose: the structure slowly unravels. *Cellulose* 4, 173–207.
- Perlack, R.D., Wright, L. L., A. F. Turhollow, R. L. Graham, B. J. Stokes and D. C. Erbach, Biomass as a Feedstock for a Bioenergy and Bioproducts Industry: the Technical Feasibility of a Billion-ton Annual Supply, U.S. Department of Energy and U.S. Department of Agriculture, 2005.
- Salapa, I., Topakas, E., Sidiras, D., 2018. Simulation and optimization of barley straw organosolv pretreatment. *Ind. Crop Prod.* 113, 80–88.
- SaskSeed Guide.(2014). Varieties of Grain Crops 2014.Available at: www.agriculture.gov.sk.ca. Accessed 1 July 2020.
- Seibert-Ludwig, D., Hahn, T., Hirth, T., & Zibek, S. (2019). Selection and optimization of a suitable pretreatment method for miscanthus and poplar raw material. *GCB Bioenergy*, 11(1), 171–180.
- Singh, S. K., & Dhepe, P. L. (2016). Isolation of lignin by organosolv process from different varieties of rice husk: Understanding their physical and chemical properties. *Bioresour Technol*, 221, 310-317.

- Sluiter A., R. R., Scarlata C., Sluiter J., and Templeton D. (2005). Determination of Extractives in Biomass. NREL Laboratory Analytical Procedures for standard biomass analysis. *National Renewable Energy Laboratory*.
- Wildschut, J., Smit, A. T., Reith, J. H., & Huijgen, W. J. (2013). Ethanol-based organosolv fractionation of wheat straw for the production of lignin and enzymatically digestible cellulose. *Bioresour Technol*, 135, 58-66.
- Zhang, H., Fan, M., Li, X., Zhang, A., Xie, J., 2018. Enhancing enzymatic hydrolysis of sugarcane bagasse by ferric chloride catalyzed organosolv pretreatment and Tween 80. *Bioresour. Technol.* 258, 295–301.
- Zhang, K., Pei, Z., & Wang, D. (2016). Organic solvent pretreatment of lignocellulosic biomass for biofuels and biochemicals: A review. *Bioresour Technol*, 199, 21-33.
- Zhang, Z., Harrison, M.D., Rackemann, D.W., Doherty, W.O.S., O'Hara, I.M., 2016. Organosolv pretreatment of plant biomass for enhanced enzymatic saccharification. *Green Chem.* 18 (2), 360–381.
- Zhao, X., Li, S., Wu, R., Liu, D., 2017. Organosolv fractionating pre-treatment of lignocellulosic biomass for efficient enzymatic saccharification: chemistry, kinetics, and substrate structures. *Biofuel. Bioprod. Bior.* 11 (3), 567–590.
- Zhou, Z., Lei, F., Li, P., & Jiang, J. (2018). Lignocellulosic biomass to biofuels and biochemicals: A comprehensive review with a focus on ethanol organosolv pretreatment technology. *Biotechnol Bioeng*, 115(11), 2683-2702.
- Zhuang, X., Wang, W., Yu, Q., Qi, W., Wang, Q., Tan, X., Yuan, Z. (2016). Liquid hot water pretreatment of lignocellulosic biomass for bioethanol production accompanying with high valuable products. *Bioresour Technol*, 199, 68-75.