

9 Použitá literatura

Accinelli, C. et al., 2012. Deterioration of bioplastic carrier bags in the environment and assessment of a new recycling alternative. *Chemosphere*, 89(2), pp.136–143. Available at: <http://dx.doi.org/10.1016/j.chemosphere.2012.05.028>.

Adamcová, D. & Vaverková, M., 2014. Degradation of biodegradable/degradable plastics in municipal solid-waste landfill. *Polish Journal of Environmental Studies*, 23(4), pp.1071–1078.

Adamcová, D. & Vaverková, M.D., 2016. New Polymer Behavior Under the Landfill Conditions. *Waste and Biomass Valorization*, 7(6), pp.1459–1467. Available at: <http://link.springer.com/10.1007/s12649-016-9542-0>.

Åkesson, D. et al., 2016. Mechanical Recycling of PLA Filled with a High Level of Cellulose Fibres. *Journal of Polymers and the Environment*, 24(3), pp.185–195.

Álvarez-Chávez, C.R. et al., 2012. Sustainability of bio-based plastics: General comparative analysis and recommendations for improvement. *Journal of Cleaner Production*, 23(1), pp.47–56. Available at: <http://dx.doi.org/10.1016/j.jclepro.2011.10.003>.

Arcos-Hernandez, M. V. et al., 2012. Biodegradation in a soil environment of activated sludge derived polyhydroxyalkanoate (PHBV). *Polymer Degradation and Stability*, 97(11), pp.2301–2312.

Ardisson, G.B. et al., 2014. Biodegradation of plastics in soil and effects on nitrification activity. A laboratory approach. *Frontiers in Microbiology*, 5(DEC), pp.1–7.

Baláš, Marek, Skála Zdeněk a Lisý Martin. Spalovny odpadu – odpad jako palivo. In: *Tzbinfo* [online]. 2014 [cit. 2017-12-03]. Dostupné z: <http://energetika.tzb-info.cz/energie-z-odpadu/11897-spalovny-odpadu-odpad-jako-palivo>

Bolan, N.S. et al., 2013. Landfills as a biorefinery to produce biomass and capture biogas. *Bioresource Technology*, 135(5), pp.578–587. Available at: <http://dx.doi.org/10.1016/j.biortech.2012.08.135>.

- Carné Sánchez, A. & Collinson, S.R., 2011. The selective recycling of mixed plastic waste of polylactic acid and polyethylene terephthalate by control of process conditions. *European Polymer Journal*, 47(10), pp.1970–1976.
- Cesetti, M. & Nicolosi, P., 2016. Waste processing: new near infrared technologies for material identification and selection. *Journal of Instrumentation*, 11(SEP), pp.1-8.
- Comani, E. et al., 2015. CHALLENGES AND OPORTUNITIES IN GREEN PLASTICS : AN ASSESSMENT USING THE ELECTRE DECISION-AID METHOD. *Environmental Engineering and Management Journal*, 14(3), pp.689–702.
- Cornell, D.D., 2007. Biopolymers in the existing postconsumer plastics recycling stream. *Journal of Polymers and the Environment*, 15(4), pp.295–299.
- Corre, Y.M. et al., 2012. Morphology and functional properties of commercial polyhydroxyalkanoates: A comprehensive and comparative study. *Polymer Testing*, 31(2), pp.226–235. Available at: <http://dx.doi.org/10.1016/j.polymertesting.2011.11.002>.
- Cosate, M.F. & Patri, D.A., 2016. Life Cycle Assessment of Poly (Lactic Acid) (PLA): Comparison Between Chemical Recycling , Mechanical Recycling and Composting. *Journal of Polymers and the Environment*, 24(4), pp.372–384.
- Eerhart, A.J.J.E., Faaij, A.P.C. & Patel, M.K., 2012. Replacing fossil based PET with biobased PEF; process analysis, energy and GHC balance. *Energy & Environmental Science*, 5(4), pp.6407–6422.
- Emadian, S.M., Onay, T.T. & Demirel, B., 2016. Biodegradation of bioplastics in natural environments. *Waste Management*, 59(JAN), pp.526–536. Available at: <http://dx.doi.org/10.1016/j.wasman.2016.10.006>.
- Federle, T.W. et al., 2002. Anaerobic biodegradation of aliphatic polyesters: Poly(3-hydroxybutyrate-co-3-hydroxyoctanoate) and poly(epsilon-caprolactone). *Biomacromolecules*, 3(4), pp.813–822.

- Geyer, B., Lorenz, G. & Kandelbauer, A., 2016. Recycling of poly(ethylene terephthalate) - A review focusing on chemical methods. *Express Polymer Letters*, 10(7), pp.559–586.
- Gómez, E.F. et al., 2014. Biodegradability of crude glycerol-based polyurethane foams during composting, anaerobic digestion and soil incubation. *Polymer Degradation and Stability*, 102(1), pp.195–203. Available at: <http://dx.doi.org/10.1016/j.polymdegradstab.2014.01.008>.
- Gómez, E.F. & Michel, F.C., 2013. Biodegradability of conventional and bio-based plastics and natural fiber composites during composting, anaerobic digestion and long-term soil incubation. *Polymer Degradation and Stability*, 98(12), pp.2583–2591. Available at: <http://dx.doi.org/10.1016/j.polymdegradstab.2013.09.018>.
- Gouisssem, L., Douibi, A. & Benachour, D., 2014. The Evolution of Properties of Recycled Poly (ethylene terephthalate) as Function of Chain Extenders , the Extrusion Cycle and Heat Treatment 1. *Polymer Science*, 56(6), pp.844–855.
- Guo, M. et al., 2011. Anaerobic digestion of starch-polyvinyl alcohol biopolymer packaging: Biodegradability and environmental impact assessment. *Bioresource Technology*, 102(24), pp.11137–11146. Available at: <http://dx.doi.org/10.1016/j.biortech.2011.09.061>.
- Hopmann, C., Schippers, S. & Christopher, H., 2015. Influence of Recycling of Poly (lactic acid) on Packaging Relevant Properties. *Journal of Applied Polymer Science*, 132(9), pp.1–6.
- Ignatyev, I.A., Thielemans, W. & Vander Beke, B., 2014. Recycling of polymers: A review. *ChemSusChem*, 7(6), pp.1579–1593.
- Ishigaki, T. et al., 2004. The degradability of biodegradable plastics in aerobic and anaerobic waste landfill model reactors. *Chemosphere*, 54(3), pp.225–233.
- Kale, G. et al., 2007. Compostability of bioplastic packaging materials: An overview. *Macromolecular Bioscience*, 7(3), pp.255–277.
- Kale, G., Auras, R. & Singh, S.P., 2006. Degradation of commercial biodegradable packages under real composting and ambient exposure conditions. *Journal of Polymers and the Environment*, 14(3), pp.317–334.

Karahaliou, E. & Tarantili, P.A., 2009. Stability of ABS Compounds Subjected to Repeated Cycles of Extrusion Processing. *Polymer Degradation and Stability*, 49(11), pp.2269–2275.

Khoramnejadian, S., Zavareh, J.J. & Khoramnejadian, S., 2011. Bio-based plastic a way for reduce municipal solid waste. *Procedia Engineering*, 21 (SEP), pp.489–495. Available at: <http://dx.doi.org/10.1016/j.proeng.2011.11.2042>.

Kijchavengkul, Thitisilp and Auras, R., 2008. Perspective Compostability of polymers. *Polymer international*, 57(April), pp.793–804. Available at: <http://onlinelibrary.wiley.com/doi/10.1002/pi.2098/full>.

Kijchavengkul, T. & Auras, R., 2008. Compostability of polymers. *Polymer International*, 57(6), pp.793–804. Available at: <http://doi.wiley.com/10.1002/pi.2420> [Accessed March 6, 2017].

Kolstad, J.J. et al., 2012. Assessment of anaerobic degradation of Ingeo™ polylactides under accelerated landfill conditions. *Polymer Degradation and Stability*, 97(7), pp.1131–1141.

Krása, Ondřej. Větší množství bioplastů v odpadech může ohrozit recyklaci. *Odpady*. 2016, (7), 25-28.

Lettieri, P. & Baeyens, J., 2009. Recycling and recovery routes of plastic solid waste (PSW): A review. *Waste Management*, 29(10), pp.2625–2643. Available at: <http://dx.doi.org/10.1016/j.wasman.2009.06.004>.

Lipavský, Jan, Mayerová Markéta a Stehlíková Iva. Kompostování biodegradabilních plastů: pomaleji, než slibují výrobci. *Odpady*. 2016, (7), 29-30.

Lopez, J.P. et al., 2012. Recycling Ability of Biodegradable Matrices and Their Cellulose-Reinforced Composites in a Plastic Recycling Stream. *Journal of Polymers and the Environment*, 20(1), pp.96–103.

Lorenzo, V., Orden, M.U. De & Martínez-urreaga, J., 2016. Effect of different mechanical recycling processes on the hydrolytic degradation of poly (L -lactic acid). *Polymer Degradation and Stability*, 133, pp. 339-348.

Mu, R. & Deckwer, W., 2001. Degradation of natural and synthetic polyesters under anaerobic conditions. *Journal of Biotechnology*, 86(2), pp.113–126.

Müller, G. et al., 2014. End-of-life Solutions for Fibre and Biod-based Packaging Materials in Europe. *Packaging and Technology and Science*, 27(November), pp.1–15. Available at: <http://onlinelibrary.wiley.com/doi/10.1002/pts.893/abstract>.

Philp, J.C., Ritchie, R.J. & Guy, K., 2013. Biobased plastics in a bioeconomy. *Trends in Biotechnology*, 31(2), pp.65–67. Available at: <http://dx.doi.org/10.1016/j.tibtech.2012.11.009>.

Piemonte, V. & Gironi, F., 2011. Land-Use Change Emissions : How Green Are the Bioplastics ? *Environmental Progress & Sustainable Energy*, 30(4), pp.685–691.

Piemonte, V., Sabatini, S. & Gironi, F., 2013. Chemical Recycling of PLA: A Great Opportunity Towards the Sustainable Development? *Journal of Polymers and the Environment*, 21(3), pp.640–647.

Rossi, V. et al., 2015. Life cycle assessment of end-of-life options for two biodegradable packaging materials: Sound application of the European waste hierarchy. *Journal of Cleaner Production*, 86, pp.132–145. Available at: <http://dx.doi.org/10.1016/j.jclepro.2014.08.049>.

Shah, A.A. et al., 2008. Biological degradation of plastics: A comprehensive review. *Biotechnology Advances*, 26(3), pp.246–265.

Shin, P., Kim, M. & Kim, J., 1997. Biodegradability of degradable plastics exposed to anaerobic digested sludge and simulated landfill conditions. *Journal of Polymers and the Environment*, 5(1), pp.33–39. Available at: <http://dx.doi.org/10.1007/BF02763566>.

Soroudi, A. & Jakubowicz, I., 2013. Recycling of bioplastics, their blends and biocomposites: A review. *European Polymer Journal*, 49(10), pp.2839–2858. Available at: <http://dx.doi.org/10.1016/j.eurpolymj.2013.07.025>.

Storz, H. & Vorlop, K.-D., 2013. Bio-based plastics: status, challenges and trends. *Landbauforschung*, 63(4), pp.321–332.

Sudesh, K. & Iwata, T., 2008. Sustainability of Biobased and Biodegradable Plastics. *Clean Journal*, 36(5–6), pp.433–442.

Šťastná, Jarmila. Recyklace bioplastů z pohledu zpracovatele. *Odpady*. 2016, (7), 31.

Tsuneizumi, Y. et al., 2010. Chemical recycling of poly(lactic acid)-based polymer blends using environmentally benign catalysts. *Polymer Degradation and Stability*, 95(8), pp.1387–1393. Available at: <http://dx.doi.org/10.1016/j.polymdegradstab.2010.01.019>.

Unmar, G. & Mohee, R., 2008. Assessing the effect of biodegradable and degradable plastics on the composting of green wastes and compost quality. *Bioresource Technology*, 99(15), pp.6738–6744.

Vaněk, Tomáš, Lipavský Jan a Vrbová Martina. Výzkum říká: Degradovatelné plasty příliš nedegradují. *Odpady*. 2013, **23**(10), 22-23.

Vasmara, C. & Marchetti, R., 2016. BIOGAS PRODUCTION FROM BIODEGRADABLE BIOPLASTICS. *Environmental Engineering and Management Journal*, 15(9), pp.2041–2048.

Vaverková, M. et al., 2012. Study of the Biodegradability of Degradable/Biodegradable Plastic Material in a Controlled Composting Environment. *Ecological Chemistry and Engineering S*, 19(3), pp.347–358. Available at: <http://www.degruyter.com/view/j/eces.2012.19.issue-3/v10216-011-0025-8/v10216-011-0025-8.xml>.

Vörös, František. Bioplasty – nový problém pro odpadáře/ III. In: *Odpady* [online]. 2012 [cit. 2017-02-03]. Dostupné z: <http://odpady-online.cz/bioplasty-novy-problem-pro-odpadare-iii/>

Vörös, František. Bioplasty – nový problém pro odpadáře/ V. In: *Odpady* [online]. 2013 [cit. 2017-02-03]. Dostupné z: <http://odpady-online.cz/bioplasty-novy-problem-pro-odpadare-v/>

Vörös, František. Aktuální údaje o plastech a využití plastového odpadu. In: *Tzbinfo* [online]. 2014 [cit. 2017-02-03]. Dostupné z: <http://stavba.tzb-info.cz/tepelne-izolace/11996-aktualni-udaje-o-plastech-a-vyuziti-plastovych-odpadu>

Weng, Y.X. et al., 2010. Biodegradation behavior of PHBV films in a pilot-scale composting condition. *Polymer Testing*, 29(5), pp.579–587. Available at: <http://dx.doi.org/10.1016/j.polymertesting.2010.04.002>.

Yagi, H. et al., 2009. Anaerobic biodegradation tests of poly(lactic acid) and polycaprolactone using new evaluation system for methane fermentation in anaerobic sludge. *Polymer Degradation and Stability*, 94(9), pp.1397–1404. Available at: <http://dx.doi.org/10.1016/j.polymdegradstab.2009.05.012>.

Yarahmadi, N., Jakubowicz, I. & Enebro, J., 2016. Polylactic acid and its blends with petroleum-based resins: Effects of reprocessing and recycling on properties. *Journal of Applied Polymer Science*, 133(36), pp.1–9.

Yates, M.R. & Barlow, C.Y., 2013. Life cycle assessments of biodegradable, commercial biopolymers - A critical review. *Resources, Conservation and Recycling*, 78, pp.54–66. Available at: <http://dx.doi.org/10.1016/j.resconrec.2013.06.010>.

Yin, S. et al., 2015. Mechanical Reprocessing of Polyolefin Waste : A Review. *Polymer engineering and science*, 55(12), pp.2899–2909.

Biobased plastics. *European bioplastics* [online]. 2016 [cit. 2017-01-30]. Dostupné z: <http://www.european-bioplastics.org/bioplastics/materials/biobased/>

Biodegradable plastics. *European bioplastics* [online]. 2016 [cit. 2017-01-30]. Dostupné z: <http://www.european-bioplastics.org/bioplastics/materials/biodegradable/>

Bioplastics market data. *European Bioplastics* [online]. 2016 [cit. 2017-01-29]. Dostupné z: <http://www.european-bioplastics.org/market/>

Plastics - the Facts 2016. *PlasticsEurope* [online]. 2016 [cit. 2017-01-29]. Dostupné z: <http://www.plasticseurope.org/Document/plastics---the-facts-2016-15787.aspx?FoIID=2>

Polybutylene succinate. *Wikipedia* [online]. 2017 [cit. 2017-04-05]. Dostupné z: https://en.wikipedia.org/wiki/Polybutylene_succinate

Testing Labs for Compostability. *BPI* [online]. 2015 [cit. 2017-04-01]. Dostupné z:
<http://www.bpiworld.org/certified-compostability-testing-laboratories>

Use of plastics. *PlasticsEurope* [online]. 2017 [cit. 2017-01-29]. Dostupné z:
<http://www.plasticseurope.org/use-of-plastics.aspx>

Vision and mission. *European Biogas Association* [online]. 2013 [cit. 2017-02-14]. Dostupné z:
<http://european-biogas.eu/about-us/vision-mission/>

Vyhláška č. 341/2008 Sb., o podrobnostech nakládání s biologicky rozložitelnými odpady a o změně vyhlášky č. 294/2005 Sb., o podmínkách ukládání odpadů na skládky a jejich využívání na povrchu terénu a změně vyhlášky č. 383/2001 Sb., o podrobnostech nakládání s odpady, (vyhláška o podrobnostech nakládání s biologicky rozložitelnými odpady). In: Sběrka zákonů. 1. 1. 2017.

Vyhláška č. 294/2005 Sb., o podmínkách ukládání odpadů na skládky a jejich využívání na povrchu terénu a změně vyhlášky č. 383/2001 Sb., o podrobnostech nakládání s odpady. In: Sběrka zákonů. 1. 1. 2017

Zákon č. 185/2001 Sb., o odpadech a o změně některých dalších zákonů. In: Sběrka zákonů. 1. 1. 2017