

Literaturstudie zum Vorkommen und Abbauverhalten von bioabbaubaren, biobasierten Kunststoffen (BBK) in der Umwelt

1. BBK Literaturstudie zum Stand des Wissens - Lebensräume

Die Primärliteratur zum Verhalten von BBK in den unterschiedlichen Lebensräumen wird zunehmend in Reviews unter verschiedenen Fragestellungen zusammengefasst. Tabelle 1 zeigt eine Übersicht der Reviews der letzten 10 Jahre, die das Verhalten von BBK vor dem Hintergrund allgemeiner Biodegradationsmechanismen, Umweltauswirkungen und speziell der Mikroplastikproblematik thematisieren.

Tabelle 1: Ausgewählte Reviews (Biodegradation und Lebensraum)

Kategorie	Jahr	Referenz	Fragestellung
Umwelt	2017	Badia, J. D., et al. [1]	Verhalten in unterschiedlichen Lebensräumen; BBK: PBS, PHA (PHB, PHBV), PLA, Stärke-Blends, TPS
	2017	Lambert, S. und Wagner, M. [2]	Verhalten in unterschiedlichen Lebensräumen; BBK: PLA, PHA, Stärke-Blends
	2017	Castro-Aguirre, E., et al. [3]	Verhalten im Kompost; BBK: PLA, PHA, Stärke-Blends, TPS
	2017	Pathak, V. M. und Navneet [4]	Verhalten in unterschiedlichen Lebensräumen; Mikroorganismen; BBK: (PBS), PHA (PHB, PHBV), PLA, Stärke-Blends, TPS
	2017	Rujnic-Sokele, M. und Pilipovic, A. [5]	Verhalten in unterschiedlichen Lebensräumen, BBK: PBS, PHA (PHB, PHBV), PLA, Stärke-Blends, (TPS)
	2017	Laycock, B., et al. [6]	Verhalten in unterschiedlichen Lebensräumen, BBK: PBS, PHA (PHB, PHBV), PLA, TPS, Stärke-Blends
	2017	Karamanlioglu, M., et al. [7]	Verhalten in unterschiedlichen Lebensräumen; Mikroorganismen; BBK: PLA
	2015	Kershaw, P. J. [8]	Verhalten im Meer (Bioabbaubare Kunststoffe und „Marine Litter“), BBK: PHB, PLA, PBS, Stärke-Blends
	2017	Emadian, S. M., et al. [9]	Verhalten in unterschiedlichen Lebensräumen; Mikroorganismen; BBK: PBS, PHA (PHB, PHBV), PLA, Stärke-Blends
	2010	Eubeler, J. P., et al. [10]	Verhalten in unterschiedlichen Lebensräumen, Testmethoden; BBK: PBS, PHA (PHB, PHBV), PLA, Stärke-Blends
Biodegradation	2009	Eubeler, J. P., et al. [11]	Verhalten in unterschiedlichen Lebensräumen, verschiedene Polymere; BBK: PBS, PHA (PHB, PHBV), PLA
	2016	Garrison, F. T., et al. [12]	Biodegradation; BBK: PLA, PHA
	2016	Farah, S., et al. [13]	Biodegradation; BBK: PLA
	2015	Rydz, J., et al. [14]	Biodegradation, Erwähnung unterschiedlicher Lebensräume; BBK: PLA, PLLA, PHA, Blends u. Copolymere
	2009	Vronman, I. und Tighzert, L. [15]	Erwähnung Biodegradation, verschiedene BBK: PLA, PLGA, PBS, PHA

Fortsetzung Tabelle 1: Ausgewählte Reviews (Biodegradation und Lebensraum)

Kategorie	Jahr	Referenz	Fragestellung
Biodegradation	2008	Shah, A. A., et al. [16]	Biodegradation; BBK: PLA, PHA (PHB, PHBV), PBS, TPS (Blend)
	2008	Lucas, N., et al. [17]	Biodegradation; BBK: PLA, PHA, PBS
Mikroplastik	2017	Avio, C. G., et al. [18]	Plastik und Mikroplastik im Meer, Erwähnung Biodegradation; BBK: PLA
	2017	Auta, H.S., et al. [19]	Mikroplastik im Meer, Erwähnung Biodegradation; BBK: PLA
	2016	Li, W. C., et al. [20]	Plastikabfälle im marinen Lebensraum, Erwähnung bioabbaubarer Kunststoffe
	2016	Wang, J., et al. [21]	Mikroplastik im Meer, Erwähnung Biodegradation
	2011	Cole, M. et al. [22]	Mikroplastik im Meer, Erwähnung Biodegradation
	2011	Andrady, A. L. [23]	Mikroplastik im Meer, Erwähnung Biodegradation

2. Literatur

Reviews

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