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KEY Review Sheet: Unit 15 กียบาศปกร Matching: Answers can be used more than once. _4_ 7 _--__a__ 3. ____ 8. _a_ 4 ___c__ 9. __d__ 11. Complete these reaction equations, using the periodic table to identify any 234 Bt → 0 e + 214 Po ${}_{29}^{34}Fe + {}_{2}^{4}He \rightarrow {}_{6}^{1}n + {}_{21}^{37}M$ 250 Th → 4He + 276 Ra ${}_{0}^{1}n + {}_{94}^{299}Pu \rightarrow {}_{57}^{197}Te + {}_{47}^{100}Mo + 3({}_{0}^{1}n)$ ${}_{1}^{1}H + {}_{1}^{2}H \rightarrow {}_{0}^{9}\gamma + {}_{2}^{8}He$ CHEMISTRY: A Study of Matter 15.5a

Unit 3 - Solubility of Ionic Substances

35. Calculate the maximum concentration of fluoride ion possible in a solution in which

 $SrF_{2(5)} \Longrightarrow Sr(ag) + 2F(ag)$

 $[Sr^{2+}] = 5.0 \times 10^{-3} M.$

Ksp=[Sr2+][F]2

36. Predict was would happen to the sould lifty of PRO (Log) if some K-SQs solution is added. Explain your answer and include the use of an equilibrium equation.

PBSQ (S) = PD-2 (a) + SQ-2 (a) The SQL build lifty of PBSQ (A) in the SQL (SQL build) is added to SQL build lifty of PBSQ (A) will deterase.

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> The magic of the physical world! If chemistry doesn't yet blow your mind, you need to watch these streams! Browse AP Chem exam prep resourcesView all resources View all resources Learn about the fundamental concepts of chemistry including

structure and states of matter, intermolecular forces, and reactions. You'll do hands-on lab investigations and use chemical calculations to solve problems. Note: Save your lab notebooks and reports; colleges may ask to see them before granting you credit. Designing experiments and procedures to test a prediction or theory Creating graphs, diagrams, and models that represent chemical phenomena Explaining how the microscopic structure of a substance determines its chemical properties Balancing a chemical equation Making a scientific claim and supporting it with evidence A one-year, introductory college general chemical phenomena Explaining how the microscopic structure of a substance determines its chemical properties. course content outlined below is organized into commonly taught units of study that provide one possible sequence for the course. Your teacher may choose to organize the course content differently based on local priorities and preferences. Course Content Topics may include: Moles and molar mass Mass spectroscopy of elements Elemental composition of pure substances Composition of mixtures Atomic structure and electron configuration Photoelectron spectroscopy Periodic trends Valence electrons and ionic compounds Topics may include: Types of chemical bonds Intramolecular force and potential energy Structure of ionic solids Structure of metals and alloys Lewis diagrams Resonance and formal charge VSEPR and bond hybridization Topics may include: Intermolecular forces Solids, liquids, and gases Kinetic molecular theory Solutions and mixtures Photoelectric effect Topics may include: Introduction for reactions Net ionic equations Representations of reactions Physical and chemical changes Stoichiometry Types of chemical reactions Topics may include: Reaction rate Introduction to rate law Elementary reaction model Introduction to reaction mechanisms Multistep reacti Introduction to enthalpy of reaction Enthalpy of reaction Enthalpy of formation Hess's law Topics may include: Introduction to Le Châtelier's principle Introduction to solubility Free energy of dissolution Topics may include: Introduction to Le Châtelier's principle Introduction to solubility Free energy of dissolution Topics may include: Introduction to Le Châtelier's principle Introduction to solubility Free energy of dissolution Topics may include: Introduction to acids and bases pH and pOH of strong acids and bases pH and pOH of strong acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of acids and bases pH and pKa Properties of buffers Molecular structure of buffers Molecular structure of acids and bases pH and bases pH and bases pH and bases pH and bases p electrolyte cells Electrolysis and Faraday's law Albertsson AC (1980) The shape of the biodegradation curve for low and high density polyethenes in prolonged series of experiments. Eur Polym J 16:623-630CAS Article Google Scholar Albertsson AC, Barenstedt C, Karlsson S, Lindberg T (1995) Degradation product pattern and morphology changes as means to differentiate abiotically and biotically aged degradable polyethylene. Polymer 36:3075-3083CAS Article Google Scholar Albertsson AC, Karlsson S (1990) The influence of biotic and abiotic environments on the degradation of polyethylene. Prog Polym Sci 15:177-192CAS Article Google Scholar Andrews GD, Subramanian PM (1992) Emerging technologies in plastics recycling. ACS Symposium Series, 513, American Chemical SocietyArkatkar A, Juwarkar AA, Bhaduri S, Uppara PV, Doble M (2010) Growth of Pseudomonas and Bacillus biofilms on pretreated polypropylene surface. Int Biodeterior Biodegradation 64:530-536CAS Article Google Scholar Artham T, Sudhakar M, Venkatesan R, Madhavan Nair C, Murty KVGK, Doble M (2009) Biofouling and stability of synthetic polymers in seawater. Int Biodeterior Biodegradation of thermally treated high-density polyethylene (HDPE) by Klebsiella pneumoniae CH001. Biotech 7:332 Google Scholar Balasubramanian V, Natarajan K, Hemambika B, Ramesh N, Sumathi CS, Kottaimuthu R, Rajesh Kannan V (2010) High-density polyethylene (HDPE)-degrading potential bacteria from marine ecosystem of Gulf of Mannar India. Lett Appl Microbiol 51:205-211CAS PubMed Google Scholar Balasubramanian V, Natarajan K, Rajesh Kannan V, Perumal P (2014) Enhancement of in vitro high-density polyethylene (HDPE) degradation by physical, chemical, and biological treatments. Environ Sci Pollut Res 21:12549-12562CAS Article Google Scholar Barnes DK, Galgani F, Thompson RC, Barlaz M (2009) Accumulation and fragmentation of plastic debris in global environments. Philos Trans R Soc Lond B Biol Sci 364:1985-1998CAS PubMed PubMed Central Article Google Scholar Bastioli C (2005) Handbook of biodegradable polymers. iSmithers Rapra Publishing, New York Google Scholar Billmeyer FW (1971) Textbook of polymer science, 2nd edn. Wiley, New York Google Scholar Book of biodegradable polymers. Bombelli P, Howe CJ, Bertocchini F (2017) Polyethylene bio-degradation by caterpillars of the wax moth Galleria mellonella. Curr Biol 27:292-293Article CAS Google Scholar Bonhomme S, Cuer A, Delort A, Lemaire J, Sancelme M, Scott G (2003) Environmental biodegradation of polyethylene. Polym Degrad Stab 81:441-452CAS Article Google Scholar Briassoulis D, Aristopoulou A, Bonora M, Verlodt I (2004) Degradation of agricultural low-density polyethylene by Phanerocheate and Streptomyces species. Appl Environ Microbiol 3:678-688 Google Scholar Chatterjee S, Roy B, Roy D, Banerjee R (2010) Enzyme-mediated biodegradation of heat treated commercial polyethylene by Staphylococcal species. Polym Degrad Stab 95:195-200CAS Article Google Scholar Chieflini E, Corti A, Swift G (2003) Biodegradation of thermally-oxidized fragmented lowdensity polyethylenes. Polym Degrad Stab 81:341-351CAS Article Google Scholar Cornell JH, Kaplan AM, Rogers MR (1984) Biodegradability of photooxidized polyalkylenes. J Appl Polym Sci 29:2581-2597CAS Article Google Scholar Curlee TR, Das S (1991) Identifying and assessing targets of opportunity for plastics recycling. Resour Conserv Recycl 5:343-363Article Google Scholar Danso D, Chow J, Streit WR (2019) Plastics: environmental and biotechnological perspectives on microbial degradation. Appl Environ Microbiol 64:1366-1371CAS PubMed PubMed Central Article Google Scholar de Souza Machado AA, Kloas W, Zarfl C, Hempel S, Rillig MC (2018) Microplastics as an emerging threat to terrestrial ecosystems. Glob Change Biol 24:1405-1416Article Google Scholar Ehara K, Iiyoshi Y, Tsutsumi Y, Nishida T (2000) Polyethylene degradation by manganese peroxidase in the absence of hydrogen peroxide. J Wood Sci 46:180-183CAS Article Google Scholar Environmental Statistics Portal (), Ministry of Environmental Statis Lysinibacillus xylanilyticus and Aspergillus niger in soil. PLoS ONE 8:717-720Article CAS Google Scholar Espino-Rammer L, Ribitsch D, Przylucka A, Marold A, Greimel KJ, Herrero Acero E, Guebitz GM, Kubicek CP, Druzhinina IS (2013) Two novel class II hydrophobins from Trichoderma spp. stimulate enzymatic hydrolysis of poly(ethylene terephthalate) when expressed as fusion proteins. Appl Environ Microbiol 79:4230-4238CAS PubMed PubMed Central Article Google Scholar Eubeler JP, Bernhard M, Knepper TP (2010) Environmental biodegradation of synthetic polymers II. Biodegradation of different polymer groups. TrAC Trend Analy Chem 29:84-100CAS Article Google Scholar EUROMAP (European Plastics and Rubber Machinery) General Secretariat (2016) Plastics resin production and consumption in 63 countries worldwide (2009-2020). GermanyEyheraguibel B, Traikia M, Fontanella S, Sancelme M, Bonhomme S, Fromageot D, Lemaire J, Lauranson G, Lacoste J, Delort AM (2017) Characterization of oxidized oligomers from polyethylene films by mass spectrometry and NMR spectroscopy before and after biodegradation by a Rhodococcus rhodochrous strain. Chemosphere 184:366-374CAS PubMed Article Google Scholar Fa W, Wang J, Ge S, Chao C (2020) Performance of photo-degradation and thermo-degradation of polyethylene with photo-catalysts and thermo-oxidant additives. Polym Bull 77:1417-1432CAS Article Google Scholar Favaro SL, Rubira AF, Muniz EC, Radovanovic E (2007) Surface modification of HDPE, PP, and PET films with KMnO4/HCl solutions. Polym Degrad Stab 92:1219-1226CAS Article Google Scholar Ferreira LM, Falcão AN, Gil MH (2005) Modification of LDPE molecular structure by gamma irradiation for bio applications. Nucl Instrum Methods B 236:513-520CAS Article Google Scholar Fontanella S, Bonhomme S, Koutny M, Husarova L, Brusson JM, Courdavault JP, Pitteri S, Samuel G, Pichon G, Lemaire J, Delort A (2010) Comparison of the biodegradability of various polyethylene films containing prooxidant additives. Polym Degrad Stab 95:1011-1021CAS Article Google Scholar Freudenberg K, Neish AC (1968) Constitution and biosynthesis of lignin. Springer-Verlag, Berlin HeidelbergBook Google Scholar Freudenberg K, Neish AC (1968) Constitution and biosynthesis of lignin. Springer-Verlag, Berlin HeidelbergBook Google Scholar Freudenberg K, Neish AC (1968) Constitution and biosynthesis of lignin. Springer-Verlag, Berlin HeidelbergBook Google Scholar Fujisawa M, Hirai H, Nishida T (2001) Degradation of polyethylene and nylon-66 by the laccase-mediator system. J Polym Environ 9:103-108CAS Article Google Scholar Gautam R, Bassi SB, Yanful EKY (2007) A review of biodegradation of synthetic plastic and foams. Appl Biochem Biotechnol 141:85-108CAS PubMed Article Google Scholar Gilan I, Hadar Y, Sivan A (2004) Colonization, biofilm formation and biodegradation of polyethylene by a strain of Rhodococcus ruber. Appl Microbiol Biotechnol 65:97-104CAS Google Scholar Gu JD (2003) Microbiological Degradation of Polymers in the Environment. Plastic in the Environment. Plastic in the Environment. Plastic in the Environment. Article Google Scholar Hadad D, Geresh S, Sivan A (2005) Biodegradation of polyethylene by the thermophilic bacterium Brevibacillus borstelensis. J Appl Microbiol 98:1093-1100CAS PubMed Article Google Scholar Harshvardhan K, Jha B (2013) Biodegradation of low-density polyethylene by marine bacteria from pelagic waters, Arabian Sea, India. Mar Pollut Bull 77:100-106CAS PubMed Article Google Scholar Hasan F, Shah AA, Hameed A, Ahmed S (2007) Synergistic effect of photo and chemical treatment on the rate of biodegradation of low density polyethylene by Fusarium sp. AF4. J Appl Polym Sci 105:1466-1470CAS Article Google Scholar Huang J, Shetty AS, Wang M (1990) Biodegradable plastics: a review. Adv Polym Technol 10:23-30CAS Article Google Scholar Iiyoshi Y, Tsutsumi Y, Nishida T (1998) Polyethylene degradation by lignin-degrading fungi and manganese peroxidase. J Wood Sci 44:222-229CAS Article Google Scholar Ishiaku US, Pang KW, Lee WS, Mohamad IZA (2002) Mechanical properties and enzymic degradation of thermoplastic and granular sago starch filled polycaprolactone. Eur Polym J 38:393-401CAS Article Google Scholar Jeon M., Andrady A., Narayan R., Law KL (2015) Plastic waste inputs from land into the ocean. Science 347:768-771CAS PubMed Article Google Scholar Jeon Management of the control of the HJ, Kim MN (2015) Functional analysis of alkane hydroxylase system derived from Pseudomonas aeruginosa E7 for low molecular weight polyethylene and the influence of surfactants Polym Degrad Stab 21:237-250CAS Article Google Scholar Kathiresan K (2003) Polythene and plastic-degrading microbes in an Indian mangrove soil. Rev Biol Trop 51:629-633CAS PubMed Google Scholar Kershaw MJ, Talbot NJ (1998) Hydrophobins and repellents: proteins with fundamental roles in fungal morphogenesis. Fungal Genet Biol 23:18-33CAS PubMed Article Google Scholar Konduri MKR, Koteswarareddy G, Rohini Kumar DB, Venkata Reddy B, Lakshmi Narasu M (2011) Effect of pro-oxidants on biodegradation of polyethylene (LDPE) by indigenous fungal isolate, Aspergillus oryzae. J Appl Poly Sci 120:3536-3545CAS Article Google Scholar Konduri MKR, Koteswarareddy G, Rohini Kumar DB, Venkata Reddy B, Lakshmi Narasu M (2011) Effect of pro-oxidants on biodegradation of polyethylene (LDPE) by indigenous fungal isolate, Aspergillus oryzae. J Appl Poly Sci 120:3536-3545CAS Article Google Scholar Konduri MKR, Koteswarareddy G, Rohini Kumar DB, Venkata Reddy B, Lakshmi Narasu M (2011) Effect of pro-oxidants on biodegradation of polyethylene (LDPE) by indigenous fungal isolate, Aspergillus oryzae. J Appl Poly Sci 120:3536-3545CAS Article Google Scholar Konduri MKR, Koteswarareddy G, Rohini Kumar DB, Venkata Reddy B, Lakshmi Narasu M (2011) Effect of pro-oxidants on biodegradation of polyethylene (LDPE) by indigenous fungal isolate, Aspergillus oryzae. J Appl Poly Sci 120:3536-3545CAS Article Google Scholar Konduri MKR, Koteswarareddy G, Rohini Kumar DB, Venkata Reddy B, Lakshmi Narasu M (2011) Effect of pro-oxidants on biodegradation of polyethylene (LDPE) by indigenous fungal isolate, Aspergillus oryzae. J Appl Poly Sci 120:3536-3545CAS Article Google Scholar Konduri MKR, Koteswarareddy G, Rohini Kumar DB, Venkata Reddy B, Lakshmi Narasu M (2011) Effect of pro-oxidants on biodegradation of polyethylene (LDPE) by indigenous fungal isolate (LDPE) by indigenous fu Jun JH, Lee S, Kim HM, Jeon S, Park SG, Bhak J, Ryu CM (2019) The Galleria mellonella hologenome supports microbiota-independent metabolism of long-chain hydrocarbon beeswax. Cell Rep 26:2451-2464CAS PubMed Article Google Scholar Koutny M, Lemaire J, Delort AM (2006) Biodegradation of polyethylene films with pro-oxidant additives. Chemosphere 64:1243-1252CAS PubMed Article Google Scholar Koutny M, Sancelme M, Dabin C, Pichon N, Delort A, Lemaire J (2006) Acquired biodegradability of polyethylenes containing pro-oxidant additives. Polym Degrad Stab 91:1495-1503CAS Article Google Scholar Krueger MC, Harms H, Schlosser D (2015) Prospects for microbiological solutions to environmental pollution with plastics. Appl Microbiol Biotechnol 99:8857-8874CAS PubMed Article Google Scholar Krupp LR, Jewell WJ (1992) Biodegradability of modified plastic films in controlled biological environments. Environ Sci Technol 26:193-198CAS Article Google Scholar Krupp LR, Jewell WJ (1992) Biodegradability of modified plastic films in controlled biological environments. J, Marthouse R, Hajbane S, Cunsolo S, Schwarz A, Levivier A, Noble K, Debeljak P, Maral H, Schoeneich-Argent R, Brambini R, Reisser J (2018) Evidence that the Great Pacific Garbage Patch is rapidly accumulating plastic. Sci Rep 8:4666CAS PubMed Central Article Google Scholar Lee B, Pometto AL, Fratzke A, Bailey TB (1991) Biodegradation of degradable plastic polyethylene by Phanerochaete and Streptomyces species. Appl Environ Microbiol 57:678-685CAS PubMed PubMed Central Article Google Scholar Liu EK, He WQ, Yan CR (2014) 'White revolution' to 'white pollution' agricultural plastic film mulch in China. Environ Research Lett 9:091001Article Google Scholar Lobelle D, Cunliffe M (2011) Early microbial biofilm formation on marine plastic debris. Mar Pollut Bull 62:197-200CAS PubMed Article Google Scholar Lucas N, Bienaime C, Belloy C, Queneudec M, Silvestre F, Nava-Saucedo JE (2008) Polymer biodegradation: mechanisms and estimation techniques a review. Chemosphere 73:429-442CAS PubMed Article Google Scholar Lwanga EH, Thapa B, Yang X, Gertsen H, Salánki T, Geissen V, Garbeva P (2018) Decay of low-density polyethylene by bacteria extracted from earthworm's guts: a potential for soil restoration. Sci Total Environ 624:753-757Article CAS Google Scholar Manzur A, Limón-González M, Favela-Torres E (2004) Biodegradation of physicochemically treated LDPE by a consortium of filamentous fungi. J Appl Polym Sci 92:265-271CAS Article Google Scholar Matsubara M, Suzuki J, Deguchi T, Miura M, Kitaoka Y (1996) Characterization of manganese peroxidases from the hyperlignolytic fungus IZU-154. Appl Environ Microbiol 62:4066-4072CAS PubMed PubMed Central Article Google Scholar Das MP, Kumar S (2014) Microbial deterioration of low density polyethylene by Aspergillus and Fusarium sp. Int J ChemTech Res 6:299-305 Google Scholar Mochizuki M, Hayashi T, Nakayama K, Masuda T (1999) Studies on biodegradable poly (hexane-6-lactone) fibers. Part 2. Environmental degradation (technical report). Pure Appl Chem 71:2177-2188CAS Article Google Scholar Mukherjee S, Roy Chowdhuri U, Kundu PP (2016) Bio-degradation of polyethylene waste by simultaneous use of two bacteria, Bacillus licheniformis for production of bio-surfactant and Lysinibacillus fusiformis for biodegradation. RSC Adv 6:2982-2992CAS Article Google Scholar Mukherjee S, Kundu PP (2014) Alkaline fungal degradation of oxidized polyethylene in black liquor: studies on the effect of lignin peroxidases and manganese peroxidases. J Appl Polym Sci 131:40738Article CAS Google Scholar Mumtaz T, Khan MR, Hassan MA (2010) Study of environmental biodegradation of LDPE films in soil using optical and scanning electron microscopy. Micron 41:430-438CAS PubMed Article Google Scholar North EJ, Halden RU (2013) Plastics and environmental health: the road ahead. Rev Environ Health 28:1-8CAS PubMed PubMed Central Article Google Scholar Novotný Č, Malachova K, Adamusc G, Kwiecień M, Lotti N, Soccio M, Verney V, Fava F (2018) Deterioration of irradiation/high-temperature pretreated, linear low-density polyethylene (LLDPE) by Bacillus amyloliquefaciens. Int Biodeterior Biodegradation 132:259-267Article CAS Google Scholar Nowak B, Paja J, Drozd-Bratkowicz KM, Rymarz G (2011) Microorganisms participating in the biodegradation of modified polyethylene films in different soils under laboratory conditions. Int Biodeterior Biodegradation of modified polyethylene films in different soils under laboratory conditions. Int Biodeterior Biodegradation of modified polyethylene films in different soils under laboratory conditions. Int Biodeterior Biodegradation of modified polyethylene films in different soils under laboratory conditions. Int Biodeterior Biodegradation 65:757-767CAS Article Google Scholar Ojha N, Pradhan N, Singh S, Barla A, Shrivastava A, Khatua P, Rai V, Bose S (2017) Evaluation of HDPE and LDPE degradation by fungus, implemented by statistical optimization. Sci Rep 7:39515CAS PubMed Pub Scholar Otake Y, Kobayashi T, Asabe H, Murakami N, Ono K (1995) Biodegradation of low density polyethylene, polystyrene, polystyrene, polyvinyl chloride, and urea formaldehyde resin buried under soil for over 32 years. J Appl Polym Sci 56:1789-1796CAS Article Google Scholar Ozdemir M, Floros JD (2004) Active food packaging technologies. Crit Rev Food Sci Nutr 44:185-193CAS PubMed Article Google Scholar Pegram JE, Andrady AL (1989) Outdoor weathering of selected polymeric materials under marine exposure conditions. Polym Degrad Stab 26:333-345CAS Article Google Scholar PlasticsEurope, plastics-the facts (2018) An analysis of European plastics production, demand and waste data. Plastics-Europe, Belgium Google Scholar Pometto AL, Lee BT, Johnson KE (1992) Production of an extracellular polyethylene-degradation of plastic by Aspergillus spp. isolated from polythene polluted sites around Chennai. J Acad Ind Res 1:313-316CAS Google Scholar Rajandas H, Parimannan S, Sathasivam K, Ravichandran M, Su Yin L (2012) A novel FTIR-ATR spectroscopy based technique for the estimation of low density polyethylene biodegradation. Polym Test 31:1094-1099CAS Article Google Scholar Ren L, Men L, Zhang Z, Guan F, Tian J, Wang B, Wang J, Zhang W (2019) Biodegradation of Polyethylene by Enterobacter sp D1 from the Guts of Wax Moth Galleria mellonella. Int J Environ Res Public Health 16:1941CAS PubMed Central Article Google Scholar Restrepo-Florez JM, Bassi A, Thompson MR (2014) Microbial degradation 88:83-90CAS Article Google Scholar Ribitsch D, Acero EH, Przylucka A, Zitzenbacher S, Marold A, Gamerith C, Tscheließnig R, Jungbauer A, Rennhofer H, Lichtenegger H, Amenitsch H, Bonazza K, Kubicek CP, Druzhinina IS, Guebitz GM (2015) Enhanced cutinase-catalyzed hydrolysis of polyethylene terephthalate by covalent fusion to hydrophobins. Appl Environ Microbiol 81:3586-3592CAS PubMed PubMed Central Article Google Scholar Ribitsch D, Yebra AO, Zitzenbacher S, Wu J, Nowitsch S, Steinkellner G, Doliska A, Oberdorfer G, Gruber CC, Gruber K, Schwab H, Kleinschek KS, Acero EH, Guebitz GM (2013) Fusion of binding domains to Thermobifida cellulosilytica cutinase to tune sorption characteristics and enhancing pet hydrolysis. Biomacromology 14:1769-1776CAS Article Google Scholar Rojo F (2010) Enzymes for aerobic degradation of alkanes. Springer-Verlag, Berlin Heidelberg, In Handbook of Hydrocarbon and Lipid MicrobiologyBook Google Scholar Rose RS, Richardson KH, Latvanen EJ, Hanson CA, Resmini M, Sanders IA (2020) Microbial degradation of plastic in agueous solutions demonstrated by CO2 evolution and quantification. Int J Mol Sci 21:1176PubMed Central Article Google Scholar Roy PK, Titus S, Surekha P, Tulsi E, Deshmukh C, Rajagopal C (2008) Degradation of abiotically aged LDPE films containing pro-oxidant by bacterial consortium. Polym Degrad Stab 93:1917-1922CAS Article Google Scholar Sammond DW, Yarbrough JM, Mansfield E, Bomble YJ, Hobdey SE, Decker SR, Taylor LE, Resch MG, Bozell JJ, Himmel ME, Vinzant TB, Crowley MF (2014) Predicting enzyme adsorption to lignin films by calculating enzyme adsorption adsorption to light enzyme adsorption adsorption to light enzyme adsorption adsorption adsorption laccase - in the biodegradation of polyethylene by the actinomycete Rhodococcus ruber. Int Biodegradation of HDPE and LDPE using an indigenously developed microbial consortium. J Microbiol Biotechnol 18:477-482CAS PubMed Google Scholar Secchi ER, Zarzur S (1999) Plastic debris ingested by a Blainville's beaked whale, Mesoplodon densirostris, washed ashore in Brazil. Aquat Mamm 25:21-24 Google Scholar Seneviratne G, Tennakoon N, Weerasekara M, Nandasena K (2006) Polyethylene biodegradation by a developed Penicillium-Bacillus biofilm. Curr Sci 90:20-21CAS Google Scholar Sen SK, Raut S (2015) Microbial degradation of low density polyethylene (LDPE): a review. J Environ Chem Eng 3:462-473Article CAS Google Scholar Shah AA, Hasan F, Hameed A, Ahmed S (2008) Biological degradation of plastics: a comprehensive review. Biotechnol Adv 26:246-265CAS PubMed Article Google Scholar Shimao M (2001) Biodegradation of plastics. Curr Opin Biotechnol 12:242-247CAS PubMed Article Google Scholar Sivan A, Szanto M, Pavlov V (2006) Biofilm development of the polyethylene degrading bacterium Rhodococcus ruber. Appl Microbiol Biotechnol 72:346-352CAS PubMed Article Google Scholar Sowmya HV, Ramalingappa Krishnappa M, Thippeswamy B (2014) Biodegradation of polyethylene by Bacillus cereus. Adv Polym Sci Technol Int J 4:28-32 Google Scholar Sowmya HV, Ramalingappa Krishnappa M, Thippeswamy B (2015) Degradation of polyethylene by Penicillium simplicissimum isolated from local dumpsite of shivamogga district. Environ Dev Sustain 17:731-745Article Google Scholar Spear LB, Ainley DG, Ribic CA (1995) Incidence of plastic in seabirds from the tropical pacific, 1984-1991: relation with distribution of species, sex, age, season, year and body weight, Mar Environ Res 40:123-146CAS Article Google Scholar Sudhakar M. Doble M. Murthy PS. Venkatesan R (2008) Marine microbe-mediated biodegradation 61:203-213CAS Article Google Scholar Suhas Carrott PIM, Carrott MMLR (2007) Lignin - from natural adsorbent to activated carbon: a review. Bioresour Technol 98:2301-2312CAS PubMed Article Google Scholar Syranidou E, Karkanorachaki K, Amorotti F, Avgeropoulos A, Kolvenbach B, Zhou N, Fava F, Corvini PFX, Kalogerakis N (2019) Biodegradation of mixture of plasticfilms by tailored marine consortia. J Hazard Mater 375:33-42CAS PubMed Article Google Scholar Thankam Thomas R, Sandhyarani N (2013) Enhancement in the photocatalytic degradation of low density polyethylene-TiO2 nanocomposite films and composite coatings: past, present and future. Trends Food Sci Technol 14:71-82CAS Article Google Scholar Tribedi P, Sil AK (2013) Low-density polyethylene degradation by Pseudomonas sp. AKS2 biofilm. Environ Sci Pollut Res Int 20:4146-4153CAS PubMed Article Google Scholar Tokiwa Y, Calabia B, Ugwu C, Aiba S (2009) Biodegradability of plastics. Int J Mol Sci 10:3722-3742CAS PubMed PubMed Central Article Google Scholar Usha R, Sangeetha T, Palaniswamy M (2011) Screening of polyethylene degrading microorganisms from garbage soil. Libyan Agric Res Cent J Int 2:200-204 Google Scholar Volke-Sepúlveda T, Saucedo-Castañeda G, Gutiérrez-Rojas M, Manzur A, Favela-Torres E (2002) Thermally treated low density polyethylene biodegradation by Penicillium pinophilum and Aspergillus niger. J Appl Polym Sci 83:305-314Article Google Scholar Weber C, I Appl Polym Sci 83:30 Pusch S, Opatz T (2017) Polyethylene bio-degradation by caterpillars? Curr Biol 27:744-745Article CAS Google Scholar Wei R, Zimmermann W (2017) Microbial enzymes for the recycling of recalcitrant petroleum-based plastics: how far are we? Microb Biotechnol 10:1308-1322CAS PubMed PubMed Central Article Google Scholar Wilkes RA, Aristilde L (2017) Degradation and metabolism of synthetic plastics and associated products by Pseudomonas sp. Capabilities and challenges. J Appl Microbiol 123:582-593CAS PubMed Article Google Scholar Yakowitz H (1990) Incineration of municipal solid waste: scientific and technical evaluation of the state-of-the-art by an expert panel. Resour Conserv Recycl 4:241-251Article Google Scholar Yamada-Onodera K, Mukumoto H, Katsuyaya Y, Saiganji A, Tani Y (2001) Degradation of polyethylene by a fungus, Penicillium simplicissimum YK. Polym Degrad Stab 72:323-327CAS Article Google Scholar Yamada-Onodera K, Mukumoto H, Katsuyaya Y, Saiganji A, Tani Y (2001) Degradation of polyethylene by a fungus, Penicillium simplicissimum YK. Polym Degrad Stab 72:323-327CAS Article Google Scholar Yamada-Onodera K, Mukumoto H, Katsuyaya Y, Saiganji A, Tani Y (2001) Degradation of polyethylene by a fungus, Penicillium simplicissimum YK. Polym Degrad Stab 72:323-327CAS Article Google Scholar Yamada-Onodera K, Mukumoto H, Katsuyaya Y, Saiganji A, Tani Y (2001) Degradation of polyethylene by a fungus, Penicillium simplicissimum YK. Polym Degrad Stab 72:323-327CAS Article Google Scholar Yamada-Onodera K, Mukumoto H, Katsuyaya Y, Saiganji A, Tani Y (2001) Degradation of polyethylene by a fungus, Penicillium simplicissimum YK. Polym Degrad Stab 72:323-327CAS Article Google Scholar Yamada-Onodera K, Mukumoto H, Katsuyaya Y, Saiganji A, Tani Y (2001) Degradation of polyethylene by a fungus, Penicillium simplicissimum YK. 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Y, Yang J, Wu W, Zhao J, Song Y, Gao L, Yang R, Jiang L (2015) Biodegradation and mineralization of polystyrene by plastic eating mealworms: part 1. Chemical and physical characterization and isotopic tests. Environ Sci Technol 49:12080-12086CAS PubMed Article Google Scholar Yang Y, Yang J, Ya

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