

Chapter VII - REFERENCES

1. Abbott, Barbara D. (2000). "The Plasticizer Diethylhexyl Phthalate Induces Malformations By Decreasing Fetal Testosterone Synthesis During Sexual Differentiation In The Male Rat." *Toxicological Sciences* 58, 339-349
2. Abd-Aziz, S. 2002. Review; Sago Starch and Its Utilization. *Journal of Bioscience and Bioengineering*. 94(6): 526-529.
3. Abe H, Doi Y, Fukushima T, Eya H (1994). Biosynthesis from gluconate of a random copolymer consisting of 3-hydroxybutyrate and medium chain length 3-hydroxyalkanoates by *pseudomonas* sp. 61-63. *Int. J. Biol. Macromol.* 16: 115-119.
4. Abraham J. Domb, Joseph Kost and David M. Wiseman, Handbook of Biodegradable polymers SPE series Gordon and Breach Publishing group pp 1- 34 and 445-550.
5. Ackley, David C. (2000). "Effects Of Di-Isononyl Phthalate, Di-2-Ethylhexyl Phthalate, And Clofibrate In Cynomolgus Monkeys." *Toxicological Sciences* 56, 181-188
6. Agarwal B D and Broutman L J. Analysis and Performance of Fiber Composites. John Wiley and Sons, Inc. New York (1990). p. 54-82.
7. Agrawal CM, Athanasiou KA, Heckman JD (1997) Biodegradable PLA/PGA polymers for tissue engineering in orthopaedics. *Material Science Forum* 250: 115-128.
8. Agrawal CM, Niederauer GG, Micallef DM, Athanasiou KA. The use of PLA/PGA polymers in orthopedics. Wise DL, Trantolo DJ, Altobelli DE, Yaszemski MJ, Greser JD, Schwartz ER. editors. *Encyclopedic handbook of biomaterials and bioengineering Part A. Materials*, vol. 2. New York: Marcel Dekker, 1995. p. 1055-1089.
9. Ahamed, N.T., R. S. Singhal, P. R. Kulkarni, D. D. Kale and M. Pal. 1996. Studies on Chenopodium Quinoa and Amaranthus Paniculatas Starch as Biodegradable Fillers in LDPE Films. *Carbohydrate Polymers*. 31: 157-160.
10. Alcock HR (1999) Inorganic-organic polymers as route to biodegradable materials. *Macromol Symp* 144: 33-46.

- 11.** Alexy , Bakos D, Hanzelová S, Kukolíková L, Kupec J, Charvátová K, Chiellini E, Cinelli P. Poly(vinyl alcohol)-collagen hydrolysate thermoplastic blends: I. Experimental design optimisation and biodegradation behaviour. *Polymer Testing* 2003; 22: 801-809, 811-818.
- 12.** Amass W, Amass A, Tighe B (1998). A review of biodegradable polymers: use, current developments in the synthesis and characterization of biodegradable polyesters, blends of biodegradable polymers and recent advances in biodegradable studies. *Polymer Int.* 47: 89-144.
- 13.** Amos DA, McInerney MJ (1989). Poly- β -hydroxyalkanoates in *synthrophomonas wolfei*. *Arch. Microbiol.* 152: 172-177.
- 14.** Anderson AJ, Dawes EA (1990). Occurrence, metabolism, metabolic role, and industrial uses of bacterial polyhydroxyalkanoates. *Microbiol. Rev.* 54: 450-472.
- 15.** Anseth KS, Svaldi DC, Laurencin CT, Langer R (1997) Photopolymerisation of novel degradable networks for orthopaedic applications. In: Photopolymerization. Scranton A, Bowman C, Peiffer R, eds. ACS Symposium Series 673; American Chemical Society, Washington DC. pp 189-202.
- 16.** Anthony L. Pometto Iii,* Byungtae Lee, And Kenneth E. Johnson Production Of An Extracellular Polyethylene-Degrading Enzyme(S) By Streptomyces Speciest Biotechnology Department, Idaho National Engineering And Environmental Laboratory, Idaho Falls, Idaho 83415-2203. Vol. 58, No. 2 Applied and Environmental Microbiology, Feb. 1992, P. 731-733.
- 17.** Arvanitoyannis H., Biliaderis C.G., Ogawa H., Kawasaki N., Biodegradable films made from low-density polyethylene (LDPE), rice starch and potato starch for food packaging applications: Part 1. *Carbo. Polym.*, 36, 89-104 (1998).
- 18.** Ashammakhi N, Rokkanen P (1997) Absorbable polyglycolide devices in trauma and bone surgery. *Biomaterials* 18: 3-9.
- 19.** ASTM D 638, Test methods for tensile properties of plastics, Annual book of ASTM standards, American Society for testing of Materials, Philadelphia, Vol. 08.01, 248-259 (1980).
- 20.** ASTM G21-70, Standard practice for determining the resistance of synthetic polymeric materials to fungi, Annual book of ASTM standards, American Society for testing of Materials, Philadelphia, Vol. 14.04, 370-373 (1980).

21. Athanasiou KA, Agrawal CE, Barber FA, Burkhart SS. Orthopaedic applications for PLA/PGA biodegradable polymers. *Arthrosc: J Arthrosc Relat Surg* 1998;14(7):726-37.
22. Athanasiou KA, Schmitz JB, Agrawal CM. The effects of porosity on degradation of PLA-PGA implants. *Tissue Engng* 1998;4:53-63.
23. Attawia MA, Uhrich KE, Botchwey E, Fan M, Langer R, Laurencin CT (1995) Cytotoxicity testing of poly(anhydride) for orthopaedic applications. *J Biomed Mater Res* 29: 1233-1240.
24. Audic, J.L. and B. Chaufer. 2005. Influence of Plasticizers and Crosslinking on The Properties of Biodegradable Films Made from Sodium Caseinate. *European Polymer Journal*. 41: 1934-1942. August 2004
25. Austin R.G., Photodegradable and biodegradable polyethylene, *US Patent* 5,334,700 (1994).
26. Baboolal Agrawal Handbook of Solvents and Plasticizers. Small Business Publications Delhi SBP series-68. pp 163-183.
27. Baptist JN (1962). Process for preparing Poly- β -hydroxybutyric acid. U.S. Patent 3044942.
28. Bergsma JE, de Bruijn WC, Rozema FR, Bos RRM, Boering G. Late degradation tissue response to poly(L-lactide) bone plates and screws. *Biomaterials* 1995;16(1):25-31.
29. Bhide, A. D. and Sundaresan, B. B.: Street cleansing and waste storage and collection in India, pp. 139, In: *Managing Solid Wastes in Developing Countries*. J R Holmes Chichester (Ed.). John Wiley, NY, 304 pp.(1984).
30. Bhide, A.D. and Sundaresan, B. B.: Solid Waste Management Eco Tools For Urban Waste Management In India 269 in *Developing Countries*. Indian national Scientific Documentation Centre, New Delhi, 222 pp. (1983).
31. Bhojar, R. V., Titus, S. K., Bhide, A. D. and Khanna, P.: Municipal and industrial solid waste management in India. *Journal of Indian Association of Environmental Management*, 23: 53-64 1996

- 32.** Bikiaris D., Prinos K., Koutsopoulos K., Vouroutzis N., Pavlidou E., Frangis N., Panayiotou C., LDPE/plasticized starch blends containing PE-g-MA copolymer as compatibilizer, *Polym. Degrad. Stab.*, 59, 287-291 (1998).
- 33.** Bond, Eric Bryan (Maineville, OH, US) Autran, Jean-Philippe Marie (Wyoming, OH, US) MacKey, Larry Neil (Fairfield, OH, US) Noda, Isao (Fairfield, OH, US) O'Donnell, Hugh Joseph (Cincinnati, OH, US) Fibers comprising starch and biodegradable polymers United States Patent 20030109605, 20020188041, 6946506, 6890872
- 34.** Böstman O, Päävaäranta U, Partio E, Vasenius J, Manniner M, Rokkanen P (1992a) Degradation and tissue replacement of an absorbable polyglycolide screw in the fixation of rabbit osteomies. *J Bone Joint Surg* 74A: 1021-1031.
- 35.** Böstman O, Partio E, Hirvensalo E, Rokannan P (1992b) Foreign-body reactions to polyglycolide screws. *Acta Orthop Scand* 63: 173-176.
- 36.** Brandrup J, Immergut EH. Polymer handbook. John Wiley & Sons, Inc.; 1966.
- 37.** Brian Amato, Sarah Karl, Carla Ng Plasticizers: An Introduction April 6, 2001 www.plasticizers.org/index.asp?page=35
- 38.** Brinton, Jr., William F. Biodegradable bags and processes for making such biodegradable bags United States Patent 5679421
- 39.** Brown, K. A .and Maunder, D. H.: Exploitation of landfills gas: a UK perspective. *Waste Science Technology*, 30 (12): 43 – 151(1994).
- 40.** Bruin P, Venstra GJ, Nijenhuis AJ, Pennings AJ (1988) Design and synthesis of biodegradable poly(esterurethane) elastomer networks composed of non-toxic building blocks. *Makromol Chem Rapid Commun* 9: 589-594.
- 41.** Burkoth AK, Anseth KS (2000) A review of photocrosslinked polyanhydrides: *in situ* forming degradable networks. *Biomaterials* 21: 2395-2404.
- 42.** Byrom D (1992). Production of Poly- β -hydroxybutyrate: Poly- β -hydroxyvalerate copolymers. *FEMS Microbiol. Rev.* 103: 247-250.
- 43.** Byrom D (1994). Polyhydroxyalkanoates, In: Mobley DP (ed) Plastic from microbes: microbial synthesis of polymers and polymer precursors. Hanser Munich, pp. 5-33.

44. Byungtae Lee, Anthony L. Pometto Iii, Alfred Fratzke, And Theodore B. Bailey, Jr. Biodegradation of Degradable Plastic Polyethylene by Phanerochaete and Streptomyces Species Applied And Environmental Microbiology, Mar. 1991, p. 678-685 Copyright © 1991, American Society for Microbiology Received 24 August 1990/ Accepted 7 December 1990 Vol. 57, No. 3.
45. C. Bastioli, Handbook of Biodegradable Polymers, Rapra Technology Limited (2005) p4
46. Cadogan, D F and Howick, C J "Plasticizers", Kirk-Othmer Encyclopaedia Of Chemical Technology, Volume 19, 1996, 4th Edition, Page 258-290
47. Cadogan, D F and Howick, C J "Plasticizers", Ullmann's Encyclopaedia Of Industrial Chemistry, Volume A 20, 1992, Page 439 - 458
48. Carraher, Charles E. Polymer Chemistry: An Introduction 4th Ed. (1996) Marcel Dekker, Inc. Ny, New York 424-426
49. Cederblad, Hans O. (Minnetonka, MN, US) Misukanis, Keith E. (Eagan, MN, US) Hakanson, Christopher P. (Woodbury, MN, US) Thoen, Andrew J. (Harris, MN, US) Biodegradable netting United States Patent 20050183329
50. Chandler, Christophe (Woodbury, MN, US) Miksic, Boris A. (North Oaks, MN, US) Ahlbrecht, Arthur H. (Stillwater, MN, US) urrier, Jude (Maplewood, MN, US) Biodegradable film United States Patent 6156929
51. Chandra R., Rustgi R., Biodegradation of maleated linear low-density polyethylene and starch blends, *Polym. Degrad. Stab.*, 56, 185-202 (1997).
52. Chandra, R. and R. Rustgi. 1998. Biodegradable Polymers. *Prog. Polym. Sci.* 23: 1273-1335.
53. Charles A. Harper, ed. Handbook of Plastic Processes Wiley - Interscience 2006.
54. Chiellini E, Cinelli P, Ilieva VI, Ceccanti A, Alexy P, Bakos D. Biodegradable Hybrid Polymer Films Based on Poly(vinyl alcohol) and Collagen Hydrolyzate. *Macromol. Symp.* 2003; 197: 125-132.

- 55.** Chiellini E. Corti A. Swift G. Biodegradation of thermally-oxidized, fragmented lowdensity polyethylenes. *Polymer Degradation and Stability* 2003; 81: 341-351.
- 56.** Chinnaaswamy, Rangaswamy (Lincoln, NE, US)Hanna, Milford A. (Lincoln, NE, US) Blends of biodegradable thermoplastic oxyalkanoyl polymer, a naturally occurring biodegradable product, filler and plastic additive United States Patent 3931068
- 57.** Chu CC (1981a) An in-vitro study of the effect of buffer on the degradation of poly(glycolic acid) sutures. *J Biomed Mater Res* 15: 19-27.
- 58.** Chu CC (1981b) The *in-vitro* degradation of poly(glycolic acid) sutures- effect of pH. *J Biomed Mater Res* 15: 795-804.
- 59.** Chu CC (1981c) Hydrolytic degradation of polyglycolic acid: tensile strength and crystallinity study. *J Appl Polym Sci* 26: 1727-1734.
- 60.** Cutright D, Beasley J, Perez B (1971) Histologic comparison of polylactic acid sutures. *Oral Surg* 32: 165-173.
- 61.** D Platt, Consultant, editor, *Biodegradable polymers* wood head publishing limited UKJune 2006.
- 62.** D.V. Rosato *Plastics Processing Data Handbook* Springer; 2nd ed. edition May 31, 1997.
- 63.** D'Juanna Patterson¹,, Derrick Dean³, Adellia Benjamin², Mohammad Biswas¹ *Biodegradable Blends based on Sweetpotato Starch Polymer International Polym Int* 53:2115-2124 (2004) DOI: 10.1002/pi.1636.
- 64.** Daniel I. M. and LaBedz R. H., *Compression Testing of Homogeneous Materials and Composites*, ASTM STP 808, R. Papirno (eds.), American Society for Testing and Materials, Philaelphia, (1983), pp. 121.
- 65.** Daniels AU, Chang MKO, Andriano KP, Heller J. Mechanical properties of biodegradable polymers and composites proposed for internal "xation of bone. *J Appl Biomater* 1990;1:57}78.
- 66.** Danjaji, I.D., R. Nawang, U. S. Ishiaku, H. Ismail, and Z. A. Mohd Ishak. 2002. Degradation Studies and Moisture Uptake of Sago-Starch Filled Linear Low-Density Polyethylene Composites. *Polymer Test.* 21: 75-81.

67. Datta, M.: Generation and control of leachate and landfill gas, p.90, In: *Waste Disposal in Engineered Landfills*. Narosa Publishing House, New Delhi, 191, 236 pp. (1997).
68. Davis G., Characterisation and characteristics of degradable polymer sacks, *Mater. Charac.*, 51, 147-157 (2003).
69. De Groot JH, De Vrijer R, Pennings AJ, Klompmaker J, Veth RPH, Jansen HWB (1996) Use of porous polyurethanes for meniscal reconstruction and meniscal prostheses *Biomaterials*. 17: 163-173.
70. Degli Innocenti, F., Compostability of Biodegradable Plastics - Standard Test Methods presented at International Workshop on Environmentally Degradable Plastics; Smolenice / Slovak Republic, October 4 - 8, 1999.
71. Deniz K Armani and Chang Liu Microfabrication technology for polycaprolactone, a biodegradable polymer Micro Actuators, Sensors and Systems (MASS) Group, Microelectronics Laboratory. January 2000.
72. Doane, William M. (Morton, IL, US) Lawton, Jr., John W. (Chillicothe, IL, US) Shogren, Randal (Peoria, IL, US) Biodegradable polyester and natural polymer laminates United States Patent 6040063.
73. Doi Y, Abe C (1990). Biosynthesis and characterization of a new bacterial copolyester of 3-hydroxyalkanoates and 3-hydroxy- ω -chloroalkanoates. *Macromolecules* 23: 3705-3707.
74. Doi Y, Kawaguchi Y, Koyama N, Nakamura S, Hiramitsu M, Yoshida Y, Kimura U (1992). Synthesis and degradation of polyhydroxyalkanoates in *Alcaligenes eutrophus*. *FEMS Microbiol. Rev.* 103: 103-108.
75. Doi Y, Tamaki A, Kunioka M, Soga K (1988). Production of copolyesters of 3-hydroxybutyrate and 3-hydroxyvalerate by *Alcaligenes eutrophus* from butyric and pentanoic acids. *Appl. Microbiol. Biotechnol.* 28: 330-334.
76. Domb AJ, Amselem S, Langer R, Maniar M. Polyanhydrides as carriers of drugs. In: Shalaby SW, editor. *Biomedical polymers Designed to degrade systems*. New York: Hanser, 1994. p. 69-96.
77. Domb AJ, Langer R (1987) Polyanhydrides I: Preparation of high molecular weight polyanhydrides. *J Polym Sci, Part A, Polymer Chem* 25: 3373-3386.

78. Domb, Abraham J. (Baltimore, MD, US) Biodegradable polymer compositions United States Patent 4999417
79. Dominique Kay, Eng., CTT Group / SAGEOS, St-Hyacinthe, Quebec, Canada Eric Blond, Eng., CTT Group / SAGEOS, St-Hyacinthe, Quebec, Canada Jacek Mlynarek, CTT Group / SAGEOS, St-Hyacinthe, Quebec, Canada Geosynthetics Durability: A Polymer Chemistry Issue
80. Dr Stephan P. Weeks Polyethylene/TPS Blend Alternative to Pure Polyethylene First Principals Inc. 2001.
81. Dr. Joseph P. Greene Australia Biodegradable Plastics Research Department of Mechanical Engineering Mechatronic Engineering and Manufacturing Technology California State University, Chico 2005.
82. Durodie, Bill "Poisonous Propaganda, Global Echoes Of An Anti-Vinyl Agenda." Competitive Enterprise Institute, July 2000
83. E. Sjöström, Wood Chemistry Fundamentals and Applications, Academic Press, Inc., San Diego, California, USA, 1993.
84. E. Stevens, "What makes green plastics green," Biocycle, August, 2005.
85. Emmanuelle Schwach¹ and Luc Ave'rous² Starch-based biodegradable blends: morphology and interface properties Society of Chemical Industry *Polym Int* 0959-8103/April 2004.
86. Evangelista R.L., Nikolov Z.L., Wei S., Jane J., Gelina R.J., Effect of compounding and starch modification on properties of starch-filled low-density polyethylene, *Ind. Eng. Chem. Res.*, 30, 1841-1846 (1991).
87. F.J Rodriguez-Gonzalez, B.A. Ramsay, B.D. Favis High Performance LDPE/thermoplastic starch blends: a sustainable alternative to pure polyethylene. Crestech Inc, Ontario Canada, 1997.
88. Fernandes EG, Kenawy ER, Miertus S, Chiellini E. Environmentally Degradable Plastics - Thermal Analysis of Polymer Blends Based on Waste Gelatin. *J. Appl. Polym. Sci.* 2001. 2002; 47(7-8): 500-508.
89. Fritzsche K, Lenz RW, Fuller RC (1990). Production of unsaturated polyesters by *Pseudomonas oleovorans*. *Int. J. Biol. Macromol.* 12: 85-91.

- 90.** G. Scott, Degradable Polymers: Principles and Applications, Ed. G. Scott, Raven Press, New York 1991.
- 91.** G.F. Moore and S.M. Saunders, Advances in biodegradable polymers, Rapra tech. 1999.
- 92.** Gage P., Degradable polyethylene film-The fact, *Tappi J.* 73, 161-169 (1990).
- 93.** Gamini Seneviratne¹, N. S. Tennakoon M. L. M. A. W. Weerasekara K. A. Nandasena Polyethylene Biodegradation By A Developed Penicillium-Bacillus Biofilm Scientific Correspondence Current Science, Vol. 90, No. 1, 10 January 2006
- 94.** Gnatowski, Marek (Coquitlam, CA, US) Koutsandreas, Andy (Vancouver, CA, US) Foster, Terry (Victoria, CA, US) Fookes, David (New Westminster, CA, US) Thermoplastic photodegradable and biodegradable polymer blend United States Patent 5763518.
- 95.** Gogolewski S, Pennings AJ (1983) An artificial skin based on biodegradable mixtures of polylactides and polyurethanes for full-thickness skin wound covering. *Makromol Chem Rapid Commun* 4: 675-680.
- 96.** Goldstein, N & Block, D. 'Sorting out the Plastic', *Biocycle - Journal of Composting and Organics Recycling*, The JG Press, Vol. 41, No.8, August 2000.
- 97.** Guan, Limin (Toronto, CA, US) Holy, Chantal E. (Toronto, CA, US) Shoichet, Molly S. (Toronto, CA, US) Davies, John E. (Toronto, CA, US) Composite biodegradable polymer scaffold United States Patent 20030082808.
- 98.** Gunatillake PA, Meijs GF, McCarthy SJ (2001) Developments in design and synthesis of biostable polyurethanes. In: *Biomedical Applications of Polyurethanes*. Vermette P, Griesser HJ, Laroche, G, Guidoin R, eds. Landes Bioscience, Georgetown. pp 160-170.
- 99.** H. R. Dennis, D. L. Hunter, D. Chang, S. Kim, J. L. White, J. W. Cho And D. R. Paul, *Polymer* 42 (2001) 9513.
- 100.** H. Tsuji and K Suzuyoshi, "Environmental degradation of biodegradable polyesters 1. Pol caprolactone), poly[(R)-3-hydroxybutyrate], and seawater, *Polymer Degradation and Stability* 75 (2) (2002) pp. 347-355.

- 101.** Hadad, D., Geresh, S. and Sivan, A. Biodegradation of polyethylene by the thermophilic bacterium *Brevibacillus borstelensis*. *Journal of Applied Microbiology*, 98(5): 1093-1100, 2005.
- 102.** Halley, Peter (QLD, AU)McGlashan, Stewart (QLD, AU) Gralton, John (QLD, AU) Biodegradable polymer United States Patent 20040122135.
- 103.** Han F., Zhu Z., and Gao J., Metallurgical and Materials Transactions A. 29A (1998) pp. 2497.
- 104.** Hasirci, V. Biodegradable biomedical polymers: A review of degradation of and in vivo response to polylactides and polyhydroxyalkanoates. In *Biomaterials and Bioengineering Handbook*; Wise, D. L., Ed.; Marcel Dekker: New York, 2000; pp 141-155.
- 105.** Hayashi T (1994). Biodegradable polymers for biomedical applications. *Prog Polymer Sci* 19: 663-702.
- 106.** Haywood GW, Anderson AJ, William DR, Dawes EA, Ewing DF (1991). Accumulation of poly(hydroxyalkanoates) copolymer containing primarily 3-hydroxyvalerate from simple carbohydrate by *Rhodococcus sp.* NCIMB 40126. *Int. J. Biol. Macromol.* 13: 83-88.
- 107.** Heller J, Barr J, Ng SY, Shen H-R, Schwach-Abdellaoui K, Gurny R, Vivien-Castioni N, Loup PJ, Baehni P, Mombelli A (2002). Development and applications of injectable poly(ortho esters) for pain control and periodontal treatment. *Biomaterials* 23: 4397-4404.
- 108.** Hirt TD, Neuenschwander P, Suter UW (1996) Synthesis of degradable, biocompatible, and tough blockcopolyesterurethanes. *Macromol Chem Phys* 197: 4253-4268.
- 109.** Hocking PJ, Marchessault RH (1994) In: Chemistry and technology of Biodegradable Polymers. Griffin GJL (eds) Blackie Academic. New York, pp. 48-96.
- 110.** Hollinger J O (ed) Biomedical Applications of Synthetic Biodegradable Polymers (Boca Raton, FL: CRC Press) 1995.
- 111.** Holmes PA. Biologically produced PHA polymers and copolymers. In: Developments in crystalline polymers, Bassett DC (ed), Elsevier, London 2: pp.1-65(1988).

- 112.** Holmes, P. A. Developments in crystalline polymers; Bassett, D. C., Ed.; Elsevier: London, 1988; Vol. 2, pp 1-65.
- 113.** Huang J.C., Shetty A.S., Wang S.W., Biodegradable plastics: A review, *Adv. Polym. Tech.*, 10, 23-30 (1990).
- 114.** Huang, Yanbin (Roswell, GA, US) Kim, Jaeho (Roswell, GA, US) Methods of making functional biodegradable polymers United States Patent 20030232929.
- 115.** Huang, Yanbin (Roswell, GA, US) Kim, Jaeho (Roswell, GA, US) Methods of making functional biodegradable polymers United States Patent 7037983.
- 116.** Huijberts GNM, Eggink G, De Waard P, Huisman GW, Witholt B (1992). *Pseudomonas putida* KT2442 cultivated on glucose accumulates poly(3-hydroxyalkanoates) consisting of saturated and unsaturated monomers. *Appl. Environ. Microbiol.* 58: 536-544.
- 117.** I.C.M. Dea and A. Morrison, Chemistry and interactions of seed galactomannans, *Adv. Carboh. Chem. Biochem.* 1975, 31, 241-312.
- 118.** Ibeh, Christopher C. Thermoplastic Resins. Pittsburg: Department of Engineering Technology, 2004.
- 119.** Ishigaki, T. et. al. "The degradability of biodegradable plastics in aerobic and anaerobic waste landfill model reactors," *Chemosphere* 54:225-233 (2004).
- 120.** Isshiki, Nobuyuki (Tochigi, JP) Odajima, Shingo (Tochigi, JP) Goto, Minoru (Tochigi, JP) Biodegradable film United States Patent 20050163944.
- 121.** J. Buchert, M. Siika-aho, M. Bailey, J. Puls, A. Valkeajärvi, J. Pere and L. Viikari, Quantitative determination of wood-derived soluble oligosaccharides by HPLC, *Biotechnology Techniques* 1993, 7, 785-790.
- 122.** J. E. Glass, G. Swift, *Agricultural and Synthetic Polymers, Biodegradation and Utilization*, ACS Symposium Series 433, American Chemical Society, Washington DC, 1989, pp. 9-64.
- 123.** J. E. Glass, G. Swift, *Agricultural and Synthetic Polymers, Biodegradation and Utilization*, ACS Symposium Series 433, American Chemical Society, Washington DC, 1989, pp. 9-64.

- 124.** J. Kaiser, "Testing the performance and the disintegration of biodegradable bags for the collection of organic wastes," *Macromolecular Symposia*, 165, p 115-122 M. Booma et. al., *Journal of Elastomers and Plastics*, 26 104.
- 125.** J. Scheirs, *Polymer Recycling: Science, Technology and Applications*, Wiley Publishe1998 D. Wienke, et. al., "Adapt pattern recognition. Part 2: Classification of postconsumer plastics by remote NIR spectroscopy using an InGaAs diode array," *Chemometrics and Intelligent Laboratory Systems* (1996).
- 126.** J. W. Lawton *Plasticizers for Zein: Their Effects on tensile Properties and Water Absorption of Zein Films*, American Association of Cereal Chemists, Inc., 2004.
- 127.** J.E. Potts, *Plastics Environmentally Degradable* 3rd edition suppl. Vol. Union carbide corporation pp 626-668.
- 128.** Jain, S. C. and Garg, K. K.: *Current Environmental Issues*. The Environmental Society of India, Chandigarh (1997).
- 129.** Jakubowica, I., "Evaluation of degradable polyethylene (PE)," *Polymer Degradation and Stability*, V 80, N 1, p 39-43, (2003).
- 130.** James W. Garthe, Paula D. Kowal, *The Chemical Composition of Degradable Plastics* PSU 6/94 Agricultural and Biological Engineering University Park, PA 16802-1909, 2002.
- 131.** Jane J., Evangelista R.L., Wang L., Ramrattan S., Moore J.A., Gelina R.J., *Use of modified starches in degradable plastics*, *Corn Util. Conf. 3 Proc.*, 4, 1-5 (1990).
- 132.** Janet L. Lane and Kenneth O. Henderson *Viscosity Measurement So Easy, Yet So Difficult* ASTM Standardization News June 2004.
- 133.** Janik, H., Justrebska, M., Rutkawska, M., 'Biodegradation of Polycaprolactone in Sea Water', *Reactive Functional Polymers*, 38 27, (1998).
- 134.** Jen AC, Peter SJ, Mikos AG (1999) Preparation and use of porous poly(a-hydroxyester scaffolds for bone tissue engineering. In: *Tissue Engineering Methods and Protocols*. Morhgan JR, Yarmush ML eds Humana Press, Totowa. pp 133-140.
- 135.** Jennifer Farrin *Biodegradable Plastics From Natural Resources* Rochester Institute of Technology *Paper Number: RRV03-0007 An ASAE Meeting Presentation*, 2003.

- 136.** John C. Middleton*, Arthur J. Tipton, *Tom Martin Drive Synthetic biodegradable polymers as orthopedic devices* Birmingham Polymers, Inc. 756, Birmingham, AL 35211, USA 2003.
- 137.** John Scheirs *Polymer Recycling: Science, Technology and Applications* Wiley InterScience October 1998.
- 138.** Kamla-Raj, J. Hum. Ecol., *Eco Tools for Urban Waste Management in India* V.P. Upadhyay, M.Rajeswar Prasad*, Ajay Srivastav* and Khazan Singh *Ministry of Environment and Forests, North Eastern Regional Office, Shillong 793 003, Meghalaya, India** *Ministry of Environment and Forests, Eastern Regional office, Bhubaneswar 751 023, Orissa, India* 18(4): 253-269 (2005).
- 139.** Kawabata, Nariyoshi (Osaka, JP) Kohsaka, Mutsumi (Moriyama, JP) Kurooka, Teruya (Fujiidera, JP) *Biodegradable polymers* United States Patent 5496895.
- 140.** Kharas GB, Kamenetsky M, Simantirakis J, Beinlich KC, Rizzo AT, Caywood GA, Watson K (1997) *Synthesis and characterization of fumarate-based polyester for use in bioresorbable bone cement composites.* J Appl Polymer Sci 66: 1123-1137.
- 141.** Kiatkamjornwong S., Thakeow P., Sonsuk M., *Chemical modification of cassava starch for degradable polyethylene sheets,* Polym. Degrad. Stab., 73, 363-375 (2001).
- 142.** Kim BS, Lee SC, Lee SY, Chang HN, Chang YK, Woo SI (1994). *Production of poly-(3-hydroxybutyric-co-3-hydroxyvaleric acid) by fed-batch culture of Alcaligenes eutrophus with substrate feeding using on-line glucose analyser.* Enzyme Microbiol. Technol. 16: 556-561.
- 143.** Kim BS, Lee SY, Chang HN (1992) *Production of poly- β -hydroxybutyrate by fed-batch culture of recombinant Escherichia coli.* Biotechnol. Lett. 14: 811-816.
- 144.** Kim M., *Evaluation of degradability of hydroxypropylated potato starch/polyethylene blend films,* Carbo. Polym., 54, 173-181 (2003).
- 145.** Kim M., Lee S., *Characteristics of cross-linked potato starch and starch-filled linear low-density,* Carbo. Polym., 50, 331-337 (2002).
- 146.** Kirk and Othmer, *Encyclopedia of chemical technology* vol. 19 3rd edition Wiley-Interscience N.Y. 1984. pp 968-996.

- 147.** Kirk and Othmer, Encyclopedia of chemical technology vol.7 3rd edition Wiley-Interscience N.Y. 1984. pp 281-291.
- 148.** Kirsi Mikkonen, Harry Helén, Riku Talja, Stefan Willför, Bjarne Holmbom, Lea Hyvönen and Maija Tenkanen_Biodegradable Films From Mannans Department of Food Technology, Department of Applied Chemistry and Microbiology University of Helsinki, FIN-00014 Helsinki, Finland Process Chemistry Centre, Åbo Akademi University, FIN-20500 Åbo, Finland. August 2006.
- 149.** Kitch, D., 'Global Overview - Biodegradable Polymers and Organics Recycling', Biocycle - Journal of Composting and Organics Recycling, The JG Press, February 2001.
- 150.** Kobayashi G, Shiotani T, Shima Y, Doi Y (1994). Biosynthesis and characterization of poly-(3-hydroxybutyrate-co-3-hydroxyhexanoate) from oils and fats by *Aeromonas sp.* OL-338 and *Aeromonas sp.* FA-440. In: Doi Y and Fukuda K (eds), Biodegradable plastics and polymers. Elsevier, Amsterdam, pp. 410-416.
- 151.** Koelling AS, Ballintyn, NJ, Salehi A, Darden DJ, Taylor, ME, Varnavas, J, Melton DR. In vitro real-time aging and characterization of poly(L/D,L-lactic acid). In: Bumgardner JD, Puckett AD, editors. Proceedings of the Sixteenth Biomedical Engineering Conference. 1997. p. 197}201.
- 152.** Kohudic, Melvyn A., Advances in Polymer Blends Technology. 5 vols Lancaster: Technomics, 1998.
- 153.** Koleske J V Blends containing poly-caprolactone and related polymers *Polymer Blends* ed O R Paul and S Neuman (New York: Academic) pp 369-89 1978.
- 154.** Kowitz, Christoph (Weinheim, DE, US) Bauer, Peter (Ludwigshafen, DE, US) Beimborn, Dieter Bernhard (Weisenheim, DE, US) Bruchmann, Bernd Freinsheim, DE, US) Faller, Uwe (Frankenthal, DE, US) Laun, Martin (Ludwigshafen, DE, US) Pagga, Udo (Ludwigshafen, DE, US) Pipper, Gunter (Bad Dürkheim, DE, US) Warzelhan, Volker (Weisenheim, DE, US) Biodegradable polyesters United States Patent 6120895.
- 155.** Krupp, L. and Jewell, W.; Environmental Scientific Technology, 1992, 26, 193-198.

- 156.** L.H. Cheng, A.A. Karim, M.H. Norziah, and C.C. Seow, Modification of the microstructural and physical properties of konjac glucomannan-based films by alkali and sodium carboxymethylcellulose, *Food Res. Internat.* 2002, 35, 829-836.
- 157.** Lai S M; Wu C S; Liao H T The Characterization Of Biodegradable Polybutylene Succinate/Starch Blends Using Hdpe-G-Acrylic Acid As A Compatibilizerp.365-376 Journal: Polymers and Polymer Composites 2006 Volume: 14 Issue No: No. 4.
- 158.** Lamba NMK, Woodhouse KA, Cooper SL (1998) Polyurethanes in Biomedical Applications. CRC Press: New York p 205-241.
- 159.** Laurencin, Cato (Elkins Park, PA, US) Allcock, Harry (State College, PA, US) Ibim, Sobrasua (Forrest Park, GA, US) Ambrosio, Archel (Philadelphia, PA, US) Kwon, Michael (Narberth, PA, US) Biodegradable mixtures of polyphosphazene and other polymers United States Patent 6077916.
- 160.** Lee S.J., Kim S.H., Kim M., Mechanical properties and thermal degradability of degradable polyethylene films prepared with oxidized potato starch, *Food Eng. Prog.*, 3, 141-151 (1999).
- 161.** Leonard I. Nass, Encyclopedia of PVC vol. I Marcel Dekker, Inc., N.Y. and Basel 1976 pp385-592.
- 162.** Leonard I. Nass, Encyclopedia of PVC vol. II Marcel Dekker, Inc., N.Y. and Basel 1976 pp801-837.
- 163.** Leong, Kam (Ellicott City, MD, US) Jie, Wen (Baltimore, MD, US) Zhuo, Ren-Xi (Wuhan, CN) Mao, Hai-Quan (Singapore, SG) Phosphate based biodegradable polymers United States Patent 20020155092.
- 164.** Leong, Kam W. (Ellicott City, MD, US) Jie, Wen (Baltimore, MD, US) Zhuo, Ren-Xi (Wuhan, CN) Mao, Hai-Quan (Singapore, SG) Phosphate based biodegradable polymers United States Patent 6805876.
- 165.** Lewis OG, Fabisial W. Sutures. In Kirk-Othmer encyclopedia of chemical technology (4th ed.). New York: Wiley, 1997.
- 166.** Lim, S.W.; Jung I.K.; Lee, K.H.; Jin, B.S (1999). Structure and Properties of Biodegradable Gluten/Aliphatic Polyester Blends. *Eur. Polym. J.* 1999.

- 167.** Luis Gomez, High Nitrile Polymers for Beverage Container Application, Technomic Publication, 1990.
- 168.** M. Kolybaba¹, L.G. Tabil ¹, S. Panigrahi¹, W.J. Crerar¹, T. Powell¹, B. Wang¹ Biodegradable Polymers: Past, Present, and Future CSAE/ASAE Annual Intersectional Meeting USA October 3-4, 2003.
- 169.** M. Mochizuki (Japan); T. Hayashi (Japan); K. Nakayama (Japan); T. Masuda (Japan); M. Hiram¹ (Japan); R. Qian (China); B. Z. Jiang (China); A. Nakajima (Japan). Studies On Biodegradable Poly(Hexano-6- Lactone) Fibers. Pure Appl. Chem., Vol. 71, No. 11, pp. 2177±2188, 1999. PART 2: Environmental Degradation (Technical Report) Prepared For Publication By Masatsugu Mochizuki¹, Toshio Hayashi², Kazuo Nakayama³ And Toshiro Masuda⁴.
- 170.** Mani R., Bhattacharya M., Properties of injection molded starch/synthetic polymer blends.III: Effect of amylopectin to amylose ratio in starch, *Eur. Polym. J.*, 34, 1467-1475 (1998).
- 171.** Manuchehr Nikazar^{1*}, Babak Safari², Babak Bonakdarpour², and Zohreh Milani¹ Improving the Biodegradability and Mechanical Strength of Corn Starch-LDPE Blends through Formulation Modification Center of Excellence for Petrochemical Engineering, (2) Food Engineering and Biotechnology Group, Department of Chemical Engineering, Amir Kabir University of Technology Iranian Polymer Journal / Volume 14 Number 12 (2005).
- 172.** Mark and others, Encyclopedia of polymer science and engineering vol.2 pp 202-289.
- 173.** Matsudaira, Nagahisa (Saitama, JP) Imai, Toshibumi (Saitama, JP) Sen, Li Han (Saitama, JP) Taniguchi, Masayuki (Tokyo, JP) Biodegradable cards United States Patent 6096431.
- 174.** Middleton JC, Yarbrough JC. The elect of PEG end groups on the degradation of a 75/25 poly(DL-lactide-co-glycolide). *Trans Soc Biomater* 25th Annu Meeting 1999;22:535.
- 175.** Mikos A.G, Thornsén A.J., Czerwonka L.A., Bao Y., Langer R., "Preparation and characterization of poly (L-lactic acid) foams" *Polymer*, 1994, 35, 1068-1077.

- 176.** Miksic, Boris A. (North Oaks, MN, US) Vela, Pasko (Lino Lakes, MN, US) Berg, Robert (Richfield, MN, US) Boyle, Robert (Oakdale, MN, US) Biodegradable bag United States Patent 20040241359.
- 177.** Miksic, Boris A. (North Oaks, MN, US) Vela, Pasko (Lino Lakes, MN, US) Berg, Robert (Richfield, MN, US) Boyle, Robert (Oakdale, MN, US) Biodegradable bag United States Patent 6984426, United States Patent 20060121220.
- 178.** Montador, Henry J. (Cleveland, GB) Webb, Andrew (Cleveland, GB) Biodegradable polymer compositions United States Patent 5516825.
- 179.** Muller R-J, Kleeberg I, Deckwer W-D (2001). Biodegradation of polyesters containing aromatic constituents. *J. Biotechnol.* 86: 87-95.
- 180.** Nanavaty, K P.: Plastics racing into the future. Keynote address delivered to the All India Plastics Manufacturers Association, Madras, 25th July, 1997, 15pp. (1997).
- 181.** Nathan A. Baker High performance HDPE/Thermoplastic Starch Blends: Alternative to pure Polyethylene. Pittsburg State University / Pitt Plastic Inc Pittsburg Ks, 66762 August 10, 2005.
- 182.** NIIR board, The Complete Book on Biodegradable Plastics and Polymers (Recent Developments, Properties, Analysis, Materials & Processes) Asia Pacific Business Press Inc. 2006.
- 183.** Ning, Xin (Alpharetta, GA, US) Biodegradable and breathable polymer film United States Patent 20050112350.
- 184.** *Nolan-ITU Pty Ltd* Biodegradable Plastics – Developments and Environmental Impacts *Prepared in association with ExcelPlas Australia October, 2002* Last updated: Tuesday, 17-Apr-2007 09:43:49 EST.
- 185.** Nolan-ITU September 2003 (minor revisions applied April 2004). The impacts of degradable plastic bags in Australia
- 186.** O'mara, Peggy. Winning The Fight Against PVC. *Mothering.* March 1999 P35
- 187.** Ohtake, Y., Kobayashi, T., Asabe, H., Murakami, N. and Ono, K., 'Oxidative degradation and molecular weight change of LDPE buried under bioactive soil for 32-37 years', *Journal of Applied Polymer Science*, 70, 1643 (1998).

- 188.** Oriana Finkelstein An Investigation into the Aging of Biodegradable Starch Based Plastics THE UNIVERSITY OF QUEENSLAND Department of Chemical Engineering Supervisors: Rulande Rutgers Stewart McGlashan October 2000.
- 189.** Otome, Shigeo (Kyoto-shi, JP) Iwai, Kunihiro (Osaka-shi, JP) Sohgwawa, Yow-hei (Tondabayashi-shi, JP) Biodegradable film United States Patent 20050182204.
- 190.** P. A. Fowler, Louise Gracia, Malcolm Hawe, Wayne Hayes ,D. J. McClements, Gill Moody, Steve Rannard, M. J. Snowden, Graham Sworn, Radek De Braganca , G. Riess , Peter Williams (Editor), Handbook of Industrial Water Soluble Polymers Blackwell Publishing Limited (May 1, 2007).
- 191.** P. Shin et. al., "Environmental effects on polymeric matrix systems," Journal of Environmental Polymer Degradation, 5, 1, 33 (1997) .
- 192.** P.D. Ritchie, Plasticizer, Stabilizers, and Fillers, London ILIFFE Books Ltd., 1972 pp 1-226.
- 193.** Pathiraja A. Gunatillake Biodegradable Synthetic Polymers for Tissue Engineering CSIRO Molecular Science, Australia European Cells and Material Vol. 5. 2003 (pages 1-16)
- 194.** Pedrosa, A. G., D. S. Rosa. 2005. Mechanical, Thermal and Morphological Characterization of Recycled LDPE/Corn Starch Blends. *Carbohydrate Polymers*. 59: 1-9.
- 195.** Pitt, Colin G. (Durham, NC, US) Schindler, Anton E. (Durham, NC, US) Biodegradable polymers of lactones United States Patent 4379138.
- 196.** Potts J.E., Environmentally degradable plastics. In: *Kirk-Othmer Encyclopedia of Chemical Technology*, 3rd ed., Suppl. Vol., John-Wiley, New York, 638-668 (1981).
- 197.** Progelhof R. C., in Proceedings of Instrumented Impact Testing of Plastics and Composite Materials, Houston, March 1986, (ASTM) pp. 105.
- 198.** Psomiadou E., Arvanitoyannis I., Biliaderis C.J., Ogawa H., Kawasaki N., Biodegradable films made from low density polyethylene (LDPE), wheat starch and soluble starch for food packaging applications: Part 2. *Carbo. Polym.*, 33, 227-242 (1997).

- 199.** Qui LY, Zhu KJ (2000). Novel biodegradable polyphosphazenes containing glycine ethyl ester and benzyl ester of amino acethydroxamic acid as cosubsituents: synthesis, characterization and degradation properties. *J Appl Polym Sci* 77: 2987-2955.
- 200.** R. Dvorak and E. Kosior, "Development of a continuous thermals separation system for theremoval of PVC contamination in post-consumer PET flake," *SPE ANTEC Papers* 2001, TSociety of Plastics Engineers, May 2000.
- 201.** R. Gatcher and Muller, *Plastics additives*, Hanser Publishers, Munich Vienna N.Y. 1985. pp 251-335 and 601-617.
- 202.** R.P.Brown *Handbook of plastics test methods* George Godwin Ltd. 2nd edition 1981.
- 203.** Raghavan D., Emekalam A., Characterization of starch/polyethylen and starch/polyetheylen/poly (lactic acid) composites, *Polym. Deg. Stab.*, 72, 509-517 (2001).
- 204.** Raloff, J. Girls May Face Risks from Phthalates. *Science News*. Sept 9, 2000 V158 Ill P165
- 205.** Rao, K. J. and Shantaram, M. V.: Soil pollution due to disposal of urban solid wastes at landfill sites, Hyderabad, India. *Journal of Environment Protection*, 16: 373 - 385 (1996).
- 206.** Rodgers, Jack (Santa Barbara, CA, US) Petit, Michael G. (Santa Barbara, CA, US) Biodegradable fishhook United States Patent 5890316.
- 207.** Rose, John (York, GB) Hardwick, Steven (York, GB) Biodegradable polymer systems United States Patent 20040242722.
- 208.** Rubin, Irvin I., et al. *Handbook of Plastic Testing Technology*. Pomona: John Wiley & Sons Inc, 1998.
- 209.** Ruihong Zhang et. al. "Characterization of food waste as feedstock for anaer Bioresource Technology, Volume 98, Issue 4, March 2007, Pages 929-935 "Compost windrow turner," November 1, 2001.
- 210.** S. Łabużek, B. Nowak, J. Pająk Biodegradation of aged composition of polyethylene with synthetic polyester *Polimery* 2006.

- 211.** S. Takigami, Konjac mannan, In: *Handbook of Hydrocolloids*, G.O. Phillips and P.A. Williams (Eds.), Woodhead Publishing, Cambridge, UK, 2000, 413-424.
- 212.** Safari B., Making starch biodegradable through the use of starch, MSc Thesis, Food Engineering and Biotechnology Group, Department of Chemical Engineering, Amir Kabir University of Technology, Iran (2004).
- 213.** Saha N. Zatloukal M. Saha P. Modification of polymers by protein hydrolyzate - A way to biodegradable materials. *Polymers for Advanced Technologies* 2003; 14: 854-860.
- 214.** Sanon, C. G.: Working and living conditions of rag picker children: Findings of a research study: National Institute of Public Cooperation and Child Development, New Delhi (1986).
- 215.** Santini J T Jr, Langer R and Cima M J 1999 A microfabricated controlled release device *10th Int. Conf. on Solid-State Sensors and Actuators (Sendai, Japan)* Tech. Digest pp 746-7
- 216.** Schilling, Christopher H. (Midland, MI, US) Karpovich, David S. (Gagetown, MI, US) Tomasik, Piotr (Cracow, PL) Biodegradable plastics United States Patent 20040249065
- 217.** Schiltz, David C. (Columbus, OH, US) Biodegradable starch-based polymer compositions United States Patent 5449708
- 218.** Schimmel, K, et.al, "Biodegradable Polymer Characteristic the 2004 American Society for Engineering Education Annual Conference, American Society of Engineering Education, session 3613 (June 2004)
- 219.** Schmidt, Harald (Emmerich, DE, US) Friedek, Wolfgang (Bedburg-Hau, DE, US) Vogt, Petra (Rees, DE, US) Biodegradable polymer blend United States Patent 20030187149
- 220.** Sharma, V. K., Beukering, P. V. and Ramaswamy, K.V.: The case of waste paper trade in India, p. 147 - 155, In: *Conclusions and Policy Recommendations in International Trade and Recycling in Development Countries*: . P. Van Beukering and V. K. Sharma (Eds.). Institute for Environmental Studies, Netherlands and Indira Gandhi Institute of Development Research Bombay 159 pp. (1996).
- 221.** Shau, Min-Da (Kaohsiung, TW) Cherng, Jong-Yuh (Tainan, TW) Yang, Tsung-Fu (Changhua, TW) Chin, Wei-Kuo (Taipei, TW) Biodegradable cationic polymer United States Patent 7179874

- 222.** Shaw-rong Yang and Chin-hsiang Wu Degradable Plastic Films for Agricultural Applications in Taiwan Tainan District Agricultural Improvement Station 350, Section 1, Linshen Road, Tainan 701, Taiwan. R.O.C.
- 223.** Shih, Hsi-Hsin (Taichung, TW) Lee, Kuang-Rong (Hsinchu, TW) Lai, Huey-Min (Hsinchu, TW) Tsai, Chin-Chin (Taichung, TW) Chang, Yuan-Chia (Taipei, TW) Method of making porous biodegradable polymers United States Patent 6673286
- 224.** Shivapullaiah, P.V.: Waste Characterisation, p.18, Table4, In: *Waste Disposal in Engineered Landfills*. M. Datta (Ed.). Narosa Publ. House, New Delhi (1977).
- 225.** Steinbüchel A, Fuchtenbusch B (1998). Bacteria and other biological systems for polyester production. *TIBTECH*, 16: 419-427.
- 226.** Stewart Smith NSW Parliamentary Library Research Service Plastic Bags Briefing Paper No 5/04 ISSN 1325-4456 ISBN 0 7313 1760 2 May 2004.
- 227.** Susan E.M. Selke, John D. Culter, and Ruben J. Hernandez *Plastics Packaging: Properties, Processing, Applications, and Regulations*, 2nd Ed. Hanser Gardner 2004.
- 228.** T. D. Stark, H. Choi And P. W. Diebel Influence Of Plasticizer Molecular Weight On Plasticizer Retention In Pvc Geomembranes *Geosynthetics International*, 2005, 12, No. 2
- 229.** T. Hayashi (Japan); K. Nakayama (Japan); M. Mochizuki (Japan); T. Masuda (Japan); M. Hirami (Japan); R. Qian (China); B. Z. Jiang (China); A. Nakajima (Japan). Studies on biodegradable Poly(hexano-6-lactone) fibers. Part 3. Enzymatic degradation in vitro (iupac Technical Report) *Prepared for publication by TOSHIO HAYASHI¹, KAZUO NAKAYAMA^{2,†}, MASATSUGU MOCHIZUKI³, AND TOSHIRO MASUDA⁴ Pure Appl. Chem.*, Vol. 74, No. 5, pp. 869-880, © 2002 IUPAC
- 230.** Tangpasuthadol V, Pendharkar SM, Kohn J (2000a) Hydrolytic degradation of tyrosine-derived polycarbonates, a class of new biomaterials. Part I: Study of model compounds. *Biomaterials* 21: 2371-2378.
- 231.** Tangpasuthadol V, Pendharkar SM, Peterson RC, Kohn J (2000b) Hydrolytic degradation of tyrosine-derived polycarbonates, a class of new biomaterials. Part II: Study of model compounds. *Biomaterials* 21: 2379-2387

- 232.** Tayler MS, Daniels AU, Andriano KP, Heller J (1994) Six bioabsorbable polymers: *In-vitro* acute toxicity of accumulated degradation products. *J Appl Biomater* 5: 151-157.
- 233.** Tchmutin I. Ryvkina N. Saha N. Saha P. Study on biodegradability of protein filled polymer composites using dielectric measurements. *Polymer Degradation and Stability*. 2004; 86: 411-417.
- 234.** Terada, Shigenori (Shiga, JP) Takagi, Jun (Tokyo, JP) Biodegradable card. United States Patent 6372331
- 235.** Terada, Shigenori (Shiga, JP) Takagi, Jun (Tokyo, JP) Biodegradable film United States Patent 20020052445
- 236.** Terada, Shigenori (Shiga, JP) Takagi, Jun (Tokyo, JP) Biodegradable bag United States Patent 6960374
- 237.** Thakore IM. Desai S. Sarawade BD. Devi S. Studies on biodegradability, morphology and thermo-mechanical properties of LDPE/modified starch blends. *European Polymer Journal* 2001; 37: 151-160.
- 238.** Thakore, I.M., S. Iyer, A. Desai, A. Lele, and S. Devi. 1999. Morphology, Thermochemical Properties, and Biodegradability of Low Density Polyethylene/Starch Blends." *Journal of Applied Polymer Science*. 74:
- 239.** Thaler, Warren A. (Flemington, NJ, US) Manalastas, Pacifico V. (Edison, NJ, US) Drake, Evelyn N. (Lebanon, NJ, US) Lundberg, Robert D. (Bridgewater, NJ, US) Biodegradable coatings of ionomer polymer United States Patent 4741956
- 240.** Tharanathan, R.N. 2003. Biodegradable Films and Composite Coatings: Past, Present and Future. *Trends in Food Science & Technology*. 14: 71-78.
- 241.** Thomas J. Herald,^{2,3} Ersel Obuz,⁴ Wesley W. Twombly,⁵ and Kent D. Rausch⁶ Tensile Properties of Extruded Corn Protein Low-Density Polyethylene Films *Cereal Chem*. 74:258-263. Vol. 79, No. 2, 2002 261
- 242.** Tokushige, Yuji (Ibaraki-ken, JP) Nakamura, Norio (Tokyo, JP) Tanifuji, Yoichi (Tokyo, JP) Ueda, Shuhei (Ibaraki-ken, JP) Biodegradable polymer compositions and shrink films United States Patent 5726220

- 243.** Tokushige, Yuji (Ibaraki-ken, JP) Ooura, Makoto (Ibaraki-ken, JP) Nakamura, Norio (Tokyo, JP) Ueda, Shuhei (Ibaraki-ken, JP) Biodegradable polymer compositions and shrink films United States Patent 5866634
- 244.** Ullmann's Encyclopaedia of Industrial Chemistry, "Plasticizers", Volume A 20, 1992, page 439 - 45
- 245.** Ungtae Lee,¹ Anthony L. Pometto Iii, Alfred Fratzke, And Theodore B. Bailey, Jr. Biodegradation Of Degradable Plastic Polyethylene Applied And Environmental Microbiology, Mar. 1991, P. 678-685 0099-2240/91/030678-08\$02.00/0 Copyright © 1991, American Society For Microbiology
- 246.** Vaidya, Utpal R. (Inver Grove Heights, MN, US) Bhattacharya, Mrinal (Vadnais Heights, MN, US) Compositions of biodegradable natural and synthetic polymers United States Patent 5321064
- 247.** Van Soest, de Wit, Tournois, Wageningen, Vliegenhart, Utrecht, Retrogradation of Potato Starch as Studied by Fourier Transform IR Spectroscopy, Starch/Starke, Vol. 46, No.12, 1994.
- 248.** Venkateswaran, S.: The Wealth of Waste: Waste Pickers, Solid Waste and Urban Development. Friedrich Ebert Foundation, New Delhi. 96 pp. (1995).
- 249.** Vishu Shah Handbook of Plastics testing technology, John Wiley & Sons 2nd edition 1998.
- 250.** W. Carothers and J. Hill," "What makes green plastics green ", Journal of American Chemical Society E. Stevens, ," Biocycle, March 2003
- 251.** Wan Aizan Wan Abdul Rahman, Roshafima Rasit Ali., Naterah Zakaria Studies On Biodegradability, Morphology And Mechanical Properties Of Low Density Polyethylene/Sago Based Blends Malaysia. Scientific Correspondence Current Science, Vol. 90, No. 1, 10 January 2006
- 252.** Wang, Yadong (Somerville, MA, US) Ameer, Guillermo (Chicago, IL, S) Langer, Robert (Newton, MA, US) Biodegradable polymer United States Patent 20030118692
- 253.** Warner, John C. (Norwood, MA, US) Morelli, Alessandra (Quincy, MA, US) Ku, Man Ching (Braintree, MA, US) Biodegradable polymers United States Patent 20030224497

254. Westhoff R.P., Otey F.H., Melhlretter C.L., Russel C.R., Starch-filled polyvinyl chloride plastics: Preparation and evaluation, *Ind. Eng. Chem. Res.*, 13, 123-125 (1974).
255. Wikipedia, the free encyclopedia www.en.wikipedia.org
256. William DF, Mort E (1977) Enzyme-accelerated hydrolysis of polyglycolic acid. *J Bioeng* 1: 231-238.
257. Williams CT, Middleton JC, Sims KR, Swaim RP, Whit"eld DR, Yarbrough JC. Long-term stability of biodegradable polymers. Proceedings of the 17th Southern Biomedical Engineering Conference, 1998 p. 69.
258. Willner, Kurt (Reutlingen, DE, US) Fischer, Thomas (Beuren, DE, US) Polymer dispersion with improved biodegradability United States Patent 20020035181
259. Woodhouse, Kimberly AnnSkarja, Gary Alan Biodegradable polyurethanes United States Patent 6221997
260. Yasuda, Hajime (Hiroshima-ken, JP) Biodegradable copolymer, a biodegradable polymer composition, a biodegradable article, and a preparation process thereof United States Patent 5834567
261. Yu J, Wang J (2001). Metabolic flux modelling of detoxification of acetic acid by *Ralstonia eutrophus* at slightly alkaline pH levels. *Biotechnol. Bioeng.* 73: 458-464.
262. Yu, Long (Victoria, AU)Coombs, Stephen (Queensland, AU) Christie, Gregor Bruce Yeo (Victoria, AU) Biodegradable polymer United States Patent 20040242732.
263. Yüksel Orhan, Jasna Hrenoviæ, and Hanife Büyükgüngör Biodegradation Of Plastic Compost Bags Under Controlled Soil Conditions Ondokuz Mayıs University, Engineering Faculty, Environmental Engineering Department, 55139 Samsun, Turkey University of Zagreb, Faculty of Science, Department of Biology, Rooseveltov trg 6, 10000 Zagreb,Croatia *Acta Chim. Slov.* 51, 579-588. Technical Paper 579 Received 22-11-2003, 2004
264. Z. Cheng, X. Zhu, J. Chen, J. Lu, J. Macromol. Sci. 2003, A40, 1157. Microwave-Assisted Polymer Synthesis: State-of-the-Art and Future Perspectives 1763 *Macromol. Rapid Commun.* 2004, 25, 1739-1764 www.mrc-journal.de _ 2004 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim

- 265.** Zhao, Gang (Vista, CA, US) Fu, Xiaoli (Vista, CA, US) Yu, Lei (Carlsbad, CA, US) Biodegradable cationic polymers United States Patent 20060258751
- 266.** Zislis T, Martin SA, Cerbas E, Heath JR, Mans"eld JL, Hollinger JO. A scanning electron microscopic study of in vitro toxicity of ethylene-oxide sterilized bone repair materials. *J Oral Impants* 1989;25:41}6.
- 267.** Zuchowska D., Steller R., Meissner W., Structure and properties of degradable polyolefin-starch blends, *Polym.Degrad. Stab.*, 60, 471-480 (1998).
- 268.** Zuchowska D., Steller R., Meissner W., Structure and properties of degradable polyolefin-starch blends, *Polym.Degrad. Stab.*, 60, 471-480 (1998).