

References

- [1] O. Breuer, U. Sundararaj, *Polymer composites*, 25 (2004) 630-645.
- [2] P.J.F. Harris, E. Hernández, B.I. Yakobson, *American Journal of Physics*, 72 (2004) 415.
- [3] E.T. Thostenson, C. Li, T.W. Chou, *Composites Science and Technology*, 65 (2005) 491-516.
- [4] G. Viswanathan, N. Chakrapani, H. Yang, B. Wei, H. Chung, K. Cho, C.Y. Ryu, P.M. Ajayan, *Journal of the American Chemical Society*, 125 (2003) 9258-9259.
- [5] W. Gacitua, A. Ballerini, J. Zhang, Maderas. *Ciencia y tecnología*, 7 (2005) 159-178.
- [6] G. Schmidt, M.M. Malwitz, *Current opinion in colloid & interface science*, 8 (2003) 103-108.
- [7] C.M. Kok, A. Rudin, *Die Makromolekulare Chemie, Rapid Communications*, 2 (1981) 655-659.
- [8] G.G. Odian, *Principles of polymerization*, Wiley-Interscience, 2004.
- [9] T.G. Fox, P.J. Flory, *The Journal of Physical Chemistry*, 55 (1951) 221-234.
- [10] J.T.G. Fox, P.J. Flory, *Journal of Applied Physics*, 21 (1950) 581-591.
- [11] A.K. Doolittle, *Journal of Applied Physics*, 22 (1951) 1471-1475.
- [12] M.L. Williams, R.F. Landel, J.D. Ferry, *Journal of the American Chemical Society*, 77 (1955) 3701-3707.
- [13] M.H. Cohen, D. Turnbull, *The Journal of Chemical Physics*, 31 (1959) 1164-1169.
- [14] D. Turnbull, M.H. Cohen, *The Journal of Chemical Physics*, 52 (1970) 3038-3041.
- [15] R.W. Rendell, J.J. Aklonis, K.L. Ngai, G.R. Fong, *Macromolecules*, 20 (1987) 1070-1083.
- [16] R. Simha, *Macromolecules*, 10 (1977) 1025-1030.
- [17] R.E. Robertson, R. Simha, J.G. Curro, *Macromolecules*, 21 (1988) 3216-3220.
- [18] J. Crank, G.S. Park, *Diffusion in Polymers*, Academic Press, 1968.
- [19] J.D. Ferry, *Viscoelastic Properties of Polymers*, Wiley, 1980.
- [20] S. Nojima, R.J. Roe, D. Rigby, C.C. Han, *Macromolecules*, 23 (1990) 4305-4312.
- [21] W.C. Yu, C.S.P. Sung, R.E. Robertson, *Macromolecules*, 21 (1988) 355-364.
- [22] W.C. Yu, C.S.P. Sung, *Macromolecules*, 21 (1988) 365-371.
- [23] J.S. Royal, J.M. Torkelson, *Macromolecules*, 25 (1992) 4792-4796.
- [24] W.C. Conner, E.L. Weist, T. Ito, J. Fraissard, *The Journal of Physical Chemistry*, 93 (1989) 4138-4142.
- [25] T. Miyoshi, K. Takegoshi, T. Terao, *Polymer*, 38 (1997) 5475-5480.
- [26] Y.C. Jean, P.E. Mallon, D.M. Schrader, *Principles and Applications of Positron & Positronium Chemistry*, World Scientific, 2003.
- [27] Y.C. Jean, *Microchemical Journal*, 42 (1990) 72-102.
- [28] A. Dupasquier, A.P. Mills, S.I.d. Fisica, *Spettroscopia Positronica Dei Solidi*, Ios Press, 1995.
- [29] J. Algers, P. Sperr, W. Egger, G. Kögel, F.H.J. Maurer, *Physical Review B*, 67 (2003) 125404.
- [30] Y.C. Jean, G.H. Dai, H. Shi, R. Suzuki, Y. Kobayashi, *AIP Conference Proceedings*, 303 (1994) 129-139.

- [31] Y. Kobayashi, I. Kojima, S. Hishita, T. Suzuki, E. Asari, M. Kitajima, *Physical Review B*, 52 (1995) 823.
- [32] L. Xie, G. DeMaggio, W. Frieze, J. DeVries, D. Gidley, H. Hristov, A. Yee, *Physical review letters*, 74 (1995) 4947-4950.
- [33] G. DeMaggio, W. Frieze, D. Gidley, M. Zhu, H. Hristov, A. Yee, *Physical review letters*, 78 (1997) 1524-1527.
- [34] R.W. Whatmore, *Occupational Medicine*, 56 (2006) 295-299.
- [35] A. Podgórski, A. Bałazy, L. Gradoń, *Chemical engineering science*, 61 (2006) 6804-6815.
- [36] M. Alexandre, P. Dubois, *Materials Science and Engineering: R: Reports*, 28 (2000) 1-63.
- [37] N. Herron, D.L. Thorn, *Advanced Materials*, 10 (1998) 1173-1184.
- [38] R.A. Vaia, H.D. Wagner, *Materials Today*, 7 (2004) 32-37.
- [39] D.C. Look, *Materials Science and Engineering: B*, 80 (2001) 383-387.
- [40] C.M. Lieber, *Solid state communications*, 66 (1998) 5309.
- [41] Y. Zhang, K. Suenaga, C. Colliex, S. Iijima, *Science*, 281 (1998) 973-975.
- [42] L. Vayssieres, K. Keis, A. Hagfeldt, S.-E. Lindquist, *Chemistry of Materials*, 13 (2001) 4395-4398.
- [43] Z.W. Pan, Z.R. Dai, Z.L. Wang, *Science*, 291 (2001) 1947-1949.
- [44] J.A. Rodriguez, T. Jirsak, A. Freitag, J.Z. Larese, A. Maiti, *The Journal of Physical Chemistry B*, 104 (2000) 7439-7448.
- [45] W.C. Shin, *Journal of crystal growth*, 137 (1994) 319.
- [46] M.H. Huang, S. Mao, H. Feick, H. Yan, Y. Wu, H. Kind, E. Weber, R. Russo, P. Yang, *Science*, 292 (2001) 1897-1899.
- [47] N.T. Hung, *Journal of materials research*, 16 (2001) 2817.
- [48] N.F. Cooray, *Jpn J Appl Phys*, 38 (1999) 6213.
- [49] R. Paneva, *Sens Actuat A: Phys*, 72 (1999) 79.
- [50] E. Topoglidis, *J Electroanal Chem*, 517 (2001) 20.
- [51] L. Gao, Q. Li, W. Luan, H. Kawaoka, T. Sekino, K. Niihara, *Journal of the American Ceramic Society*, 85 (2002) 1016-1018.
- [52] C.X. Xu, X.W. Sun, *Applied Physics Letters*, 83 (2003) 3806-3808.
- [53] P.X. Gao, Y. Ding, W. Mai, W.L. Hughes, C. Lao, Z.L. Wang, *Science*, 309 (2005) 1700-1704.
- [54] O. Yamamoto, *International journal of inorganic materials*, 3 (2001) 643-646.
- [55] Y.W. Chen, Y.C. Liu, S.X. Lu, C.S. Xu, C.L. Shao, C. Wang, J.Y. Zhang, Y.M. Lu, D.Z. Shen, X.W. Fan, *The Journal of Chemical Physics*, 123 (2005) 134701-134705.
- [56] Y. Zhang, H. Jia, X. Luo, X. Chen, D. Yu, R. Wang, *The Journal of Physical Chemistry B*, 107 (2003) 8289-8293.
- [57] S.J. Chen, Y.C. Liu, C.L. Shao, R. Mu, Y.M. Lu, J.Y. Zhang, D.Z. Shen, X.W. Fan, *Advanced Materials*, 17 (2005) 586-590.
- [58] C. Wang, B. Mao, E. Wang, Z. Kang, C. Tian, *Solid state communications*, 141 (2007) 620-623.
- [59] X.Y. Kong, Z.L. Wang, *Nano Letters*, 3 (2003) 1625-1631.
- [60] O. Bayer, *Angewandte Chemie*, 59 (1947) 257-272.
- [61] F. Wang, *Polydimethylsiloxane modification of segmented thermoplastic polyurethanes and polyureas*, in, Virginia Polytechnic Institute and State University, 1998.

- [62] R.W. Seymour, S.L. Cooper, *Journal of Polymer Science Part B: Polymer Letters*, 9 (1971) 689-694.
- [63] S. Yoo, H. Lee, S. Seo, *Pollimo*, 21 (1997) 459-467.
- [64] J.W.C. Van Bogart, P.E. Gibson, S.L. Cooper, *Journal of Polymer Science: Polymer Physics Edition*, 21 (1983) 65-95.
- [65] B. Hartmann, J.V. Duffy, G.F. Lee, E. Balizer, *Journal of applied polymer science*, 35 (1988) 1829-1852.
- [66] J.L. Stanford, R.H. Still, A.N. Wilkinson, *Polymer*, 44 (2003) 3985-3994.
- [67] R. Camargo, C. Macosko, M. Tirrell, S. Wellinghoff, *Polymer*, 26 (1985) 1145-1154.
- [68] H. Nishimura, H. Kojima, T. Yarita, M. Noshiro, *Polymer Engineering & Science*, 26 (1986) 585-592.
- [69] R. Markovs, *Journal of cellular plastics*, 21 (1985) 326-331.
- [70] Z.S. Petrović, I. Javni, *Journal of Polymer Science Part B: Polymer Physics*, 27 (1989) 545-560.
- [71] J.L. Stanford, R.H. Still, A.N. Wilkinson, *Polymer*, 36 (1995) 3555-3564.
- [72] C. Paul, M. Nair, P. Koshy, B.B. Idage, *Journal of applied polymer science*, 74 (1999) 706-721.
- [73] M. Pandya, D. Deshpande, D. Hundiwale, *Journal of applied polymer science*, 32 (1986) 4959-4969.
- [74] N. Schneider, C.S.P. Sung, R. Matton, J. Illinger, *Macromolecules*, 8 (1975) 62-67.
- [75] C.B. Wang, S.L. Cooper, *Macromolecules*, 16 (1983) 775-786.
- [76] T. Speckhard, E. GIBSON, L. COOPER, *Polymer Engineering and Science*, 23 (1983).
- [77] S. Chang, T. Yu, C. Huang, W. Chen, K. Linliu, T. Lin, *Polymer*, 39 (1998) 3479-3489.
- [78] R. Saito, G. Dresselhaus, S. Dresselhaus, *Physical properties of carbon nanotubes*, Imperial College Press, 1998.
- [79] M. Terrones, *Annual Review of Materials Research*, 33 (2003) 419-501.
- [80] S. Iijima, *nature*, 354 (1991) 56-58.
- [81] H.W. Kroto, J.R. Heath, S.C. O'Brien, R.F. Curl, R.E. Smalley, *nature*, 318 (1985) 162-163.
- [82] S. Dresselhaus, G. Dresselhaus, P.C. Eklund, *Science of Fullerenes and Carbon Nanotubes*, Academic Press, 1996.
- [83] A. Oberlin, M. Endo, T. Koyama, *Journal of crystal growth*, 32 (1976) 335-349.
- [84] A. Hirsch, M. Brettreich, F. Wudl, *Fullerenes: Chemistry and Reactions*, John Wiley & Sons, 2006.
- [85] S. Iijima, T. Ichihashi, *nature*, 363 (1993) 603-605.
- [86] D.S. Bethune, C.H. Klang, M.S. de Vries, G. Gorman, R. Savoy, J. Vazquez, R. Beyers, *nature*, 363 (1993) 605-607.
- [87] J.L. Hutchison, N.A. Kiselev, E.P. Krinichnaya, A.V. Krestinin, R.O. Loutfy, A.P. Morawsky, V.E. Muradyan, E.D. Obraztsova, J. Sloan, S.V. Terekhov, D.N. Zakharov, *Carbon*, 39 (2001) 761-770.
- [88] A. Peigney, P. Coquay, E. Flahaut, R.E. Vandenberghe, E. De Grave, C. Laurent, *The Journal of Physical Chemistry B*, 105 (2001) 9699-9710.
- [89] A.P. Moravsky, R.O. Loutfy, **DOUBLE-WALLED CARBON NANOTUBES AND METHODS FOR PRODUCTION AND APPLICATION**, in, EP Patent 1,328,472, 2010.

- [90] K. Tanaka, T. Yamabe, K. Fukui, *The science and technology of carbon nanotubes*, Elsevier, 1999.
- [91] V.I. Gavrilenko, *Optics of Nanomaterials*, Pan Stanford Publishing, 2011.
- [92] S. Niyogi, M. Hamon, H. Hu, B. Zhao, P. Bhowmik, R. Sen, M. Itkis, R. Haddon, *Accounts of Chemical Research*, 35 (2002) 1105-1113.
- [93] B.P. Grady, *Macromolecular rapid communications*, 31 (2010) 247-257.
- [94] M.N. Tchoul, W.T. Ford, G. Lolli, D.E. Resasco, S. Arepalli, *Chemistry of Materials*, 19 (2007) 5765-5772.
- [95] X. Peng, S.S. Wong, *Advanced Materials*, 21 (2009) 625-642.
- [96] S. Qin, D. Qin, W.T. Ford, D.E. Resasco, J.E. Herrera, *Macromolecules*, 37 (2004) 752-757.
- [97] J.L. Keddie, R.A.L. Jones, R.A. Cory, *Faraday Discuss.*, 98 (1994) 219-230.
- [98] R.A.L. Jones, R.W. Richards, *Polymers at surfaces and interfaces*, Cambridge Univ Pr, 1999.
- [99] L.T. Drzal, M.J. Rich, P.F. Lloyd, *The Journal of Adhesion*, 16 (1983) 1-30.
- [100] S. Wu, *Journal of applied polymer science*, 35 (1988) 549-561.
- [101] R. Yang, Y. Li, J. Yu, *Polymer degradation and stability*, 88 (2005) 168-174.
- [102] S. Chandramouleeswaran, S. Mhaske, A. Kathe, P. Varadarajan, V. Prasad, N. Vigneshwaran, *Nanotechnology*, 18 (2007) 385702.
- [103] H. Zhao, R.K.Y. Li, *Polymer*, 47 (2006) 3207-3217.
- [104] D. Sun, N. Miyatake, H.J. Sue, *Nanotechnology*, 18 (2007) 215606.
- [105] M.M. Demir, M. Memesa, P. Castignolles, G. Wegner, *Macromolecular rapid communications*, 27 (2006) 763-770.
- [106] C.C.M. Ma, Y.J. Chen, H.C. Kuan, *Journal of applied polymer science*, 98 (2005) 2266-2273.
- [107] M. Wu, G. Yang, M. Wang, W. Wang, W.D. Zhang, J. Feng, T. Liu, *Materials Chemistry and Physics*, 109 (2008) 547-555.
- [108] D.W. Chae, B.C. Kim, *Journal of applied polymer science*, 99 (2006) 1854-1858.
- [109] S.C. Liufu, H.N. Xiao, Y.P. Li, *Polymer degradation and stability*, 87 (2005) 103-110.
- [110] Z. Wang, T.J. Pinnavaia, *Chemistry of Materials*, 10 (1998) 3769-3771.
- [111] J. Zheng, R. Ozisik, R.W. Siegel, *Polymer*, 46 (2005) 10873-10882.
- [112] J. Zheng, R. Ozisik, R.W. Siegel, *Polymer*, 47 (2006) 7786-7794.
- [113] Y. Yang, X. Xie, J. Wu, Y.-W. Mai, *Journal of Polymer Science Part A: Polymer Chemistry*, 44 (2006) 3869-3881.
- [114] K.W. Putz, C.A. Mitchell, R. Krishnamoorti, P.F. Green, *Journal of Polymer Science Part B: Polymer Physics*, 42 (2004) 2286-2293.
- [115] P. Miaudet, A. Derré, M. Maugey, C. Zakri, P.M. Piccione, R. Inoubli, P. Poulin, *Science*, 318 (2007) 1294-1296.
- [116] S.H. Jin, D.K. Choi, D.S. Lee, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 313 (2008) 242-245.
- [117] M.L.P. Ha, B.P. Grady, G. Lolli, D.E. Resasco, W.T. Ford, *Macromolecular Chemistry and Physics*, 208 (2007) 446-456.
- [118] B.P. Grady, A. Paul, J.E. Peters, W.T. Ford, *Macromolecules*, 42 (2009) 6152-6158.
- [119] P.A.M. Dirac, *Proceedings of the Royal Society of London. Series A*, 126 (1930) 360-365.

- [120] P. Dirac, *Mathematical Proceedings of the Cambridge Philosophical Society*, 26 (1930) 361-375.
- [121] C.D. Anderson, *science*, 76 (1932) 238.
- [122] C.D. Anderson, *Physical Review*, 41 (1932) 405.
- [123] C.D. Anderson, *Physical Review*, 44 (1933) 406.
- [124] C.D. Anderson, *Physical Review*, 43 (1933) 491.
- [125] C.D. Anderson, S.H. Neddermeyer, *Physical Review*, 43 (1933) 1034.
- [126] P. Blackett, G. Occhialini, *Proceedings of the Royal Society of London. Series A*, 139 (1933) 699-726.
- [127] F. Joliot, I. Curie, *nature*, 133 (1934) 201-202.
- [128] J.A. Rich, *Physical Review*, 81 (1951) 140.
- [129] A. Øre, J. Powell, *Physical Review*, 75 (1949) 1696-1699.
- [130] M. Charlton, J.W. Humberston, *Positron Physics*, Cambridge University Press, 2001.
- [131] W. Johnson, D. Buss, C. Carroll, *Physical Review*, 135 (1964) A1232.
- [132] J. Palathingal, P. Asoka-Kumar, K. Lynn, X. Wu, *Physical Review A*, 51 (1995) 2122.
- [133] O. Klemperer, *On the annihilation radiation of the positron*, in, Cambridge Univ Press, 1934, pp. 347-354.
- [134] P.C. Jain, R.M. Singru, K.P. Gopinathan, *Positron annihilation: proceedings of the Seventh International Conference on Positron Annihilation*, New Delhi, India, January 6-11, 1985 ; edited by P.C. Jain, R.M. Singru, K.P. Gopinathan, World Scientific, 1985.
- [135] P. Kubica, A. Stewart, *Physical review letters*, 34 (1975) 852-855.
- [136] J. Basson, *Physical Review*, 96 (1954) 691.
- [137] S. Mohorovičić, *Astronomische Nachrichten*, 253 (1934) 93-108.
- [138] A.E. Ruark, *Physical Review*, 68 (1945) 278.
- [139] M. Deutsch, *Physical Review*, 82 (1951) 455.
- [140] M. Deutsch, *Physical Review*, 83 (1951) 866.
- [141] M. Deutsch, E. Dulit, *Physical Review*, 84 (1951) 601.
- [142] J. Pirene, *Arch. Sci. Phys. Nat*, 28 (1946) 233.
- [143] C.N. Yang, *Physical Review*, 77 (1950) 242-245.
- [144] S. Adachi, M. Chiba, T. Hirose, S. Nagayama, Y. Nakamitsu, T. Sato, T. Yamada, *Physical review letters*, 65 (1990) 2634-2637.
- [145] T. Matsumoto, M. Chiba, R. Hamatsu, T. Hirose, J. Yang, J. Yu, *Physical Review A*, 54 (1996) 1947.
- [146] I. Rosenberg, A. Weiss, K. Canter, *Journal of Vacuum Science and Technology*, 17 (1980) 253-255.
- [147] R. Nieminen, J. Oliva, *Physical Review B*, 22 (1980) 2226.
- [148] A. Øre, *Naturvitenskapelig Rekke*, 9 (1949) 1.
- [149] H. Eyring, *The Journal of Chemical Physics*, 4 (1936) 283.
- [150] W. Brandt, S. Berko, W.W. Walker, *Physical Review*, 120 (1960) 1289.
- [151] Y. Jean, T. Sandreczki, D. Ames, *Journal of Polymer Science Part B: Polymer Physics*, 24 (1986) 1247-1258.
- [152] Q. Deng, C. Sundar, Y. Jean, *The Journal of Physical Chemistry*, 96 (1992) 492-495.

- [153] H. Nakanishi, Y. Jean, E. Smith, T. Sandreczki, *Journal of Polymer Science Part B: Polymer Physics*, 27 (1989) 1419-1424.
- [154] O. Mogensen, *The Journal of Chemical Physics*, 60 (1974) 998.
- [155] R.N. West, *Advances in Physics*, 22 (1973) 263-383.
- [156] O.E. Mogensen, *Positron annihilation in chemistry*, Springer-Verlag, 1995.
- [157] M. Eldrup, A. Vehanen, P.J. Schultz, K. Lynn, *Physical review letters*, 51 (1983) 2007-2010.
- [158] M. Eldrup, A. Vehanen, P.J. Schultz, K. Lynn, *Physical Review B*, 32 (1985) 7048.
- [159] S.V. Stepanov, V.M. Byakov, *The Journal of Chemical Physics*, 116 (2002) 6178-6195.
- [160] S.V. Stepanov, V.M. Byakov, *Positron and Positronium Chemistry*, World Scientific, Singapore, (2003) 117.
- [161] S.V. Stepanov, V.M. Byakov, Y. Kobayashi, *Physical Review B*, 72 (2005) 054205.
- [162] R. Garwin, *Physical Review*, 91 (1953) 1571.
- [163] M. Dresden, *Physical Review*, 93 (1954) 1413-1414.
- [164] R.A. Ferrell, *Physical Review*, 110 (1958) 1355-1357.
- [165] M. Heinberg, L.A. Page, *Physical Review*, 107 (1957) 1589-1600.
- [166] M. Kakimoto, T. Hyodo, T.B. Chang, *Journal of Physics B: Atomic, Molecular and Optical Physics*, 23 (1990) 589.
- [167] W. Brandt, R. Paulin, *Physical Review B*, 15 (1977) 2511-2518.
- [168] W. Brandt, *Applied Physics A: Materials Science & Processing*, 5 (1974) 1-23.
- [169] J. De Baerdemaeker, C. Dauwe, *Applied surface science*, 194 (2002) 52-55.
- [170] S. DeBenedetti, F. McGowan, J. Francis Jr, *Physical Review*, 73 (1948) 1404.
- [171] I. Pomeranckuk, *Zh. Ekspt. Teor. Fir*, 19 (1949) 183.
- [172] R. Bell, R. Graham, *Physical Review*, 90 (1953) 644.
- [173] L.I. Schiff, *Quantum mechanics*, McGraw-Hill, 1968.
- [174] S. Tao, *The Journal of Chemical Physics*, 56 (1972) 5499.
- [175] M. Eldrup, D. Lightbody, J. Sherwood, *Chemical Physics*, 63 (1981) 51-58.
- [176] A.P. Mills Jr, *Physical review letters*, 46 (1981) 717-720.
- [177] S.C. Sharma, *International Symposium on Positron Annihilation Studies of Fluids: Arlington, Texas, 8-12 June 1987*, World Scientific, 1988.
- [178] Y. Jean, *Positron annihilation in polymers*, in, *Trans Tech Publ*, 1994, pp. 59-70.
- [179] Y. Wang, H. Nakanishi, Y. Jean, T. Sandreczki, *Journal of Polymer Science Part B: Polymer Physics*, 28 (1990) 1431-1441.
- [180] Z. Peng, B. Wang, S. Li, S. Wang, H. Liu, H. Xie, *Physics Letters A*, 194 (1994) 228-234.
- [181] P.J. Schultz, K.G. Lynn, *Reviews of Modern Physics*, 60 (1988) 701-779.
- [182] R. Nieminen, *Physica Scripta*, 1983 (1983) 29.
- [183] T.S. Stein, W.E. Kauppila, *Advances in Atomic and Molecular Physics*, 18 (1982) 53-96.
- [184] R. Suzuki, T. Mikado, M. Chiwaki, H. Ohgaki, T. Yamazaki, *Applied surface science*, 85 (1995) 87-91.
- [185] E. Gullikson, A. Mills Jr, *Physical review letters*, 57 (1986) 376-379.
- [186] J. Merrison, M. Charlton, B. Deutch, L. Jorgensen, *Journal of Physics: Condensed Matter*, 4 (1992) L207.
- [187] H.H. Perkampus, *UV-VIS spectroscopy and its applications*, Springer-Verlag, 1992.

- [188] A. Van Veen, H. Schut, J. De Vries, R. Hakvoort, M. Ijpma, Analysis of positron profiling data by means of "VEPFIT", in, 1991, pp. 171.
- [189] A. Weiss, P. Coleman, Positron beams and their applications, (2000) 129.
- [190] I. MacKenzie, C. Shulte, T. Jackman, J. Campbell, *Physical Review A*, 7 (1973) 135.
- [191] V. Kuzminikh, S. Vorobiev, *Nuclear Instruments and Methods*, 167 (1979) 483-488.
- [192] P. Arifov, A. Grupper, H. Alimkulov, North Holland, Amsterdam, (1982) 699-701.
- [193] A.P. Mills Jr, Positron Annihilation ed PG Coleman, SC Sharma and LM Diana, Amsterdam: North-Holland) p, 1982.
- [194] J. Makinen, S. Palko, J. Martikainen, P. Hautojarvi, *Journal of Physics: Condensed Matter*, 4 (1992) L503.
- [195] G. Massoumi, W. Lennard, P.J. Schultz, A. Walker, K.O. Jensen, *Physical Review B*, 47 (1993) 11007.
- [196] F.H. Gojny, M.H.G. Wichmann, B. Fiedler, W. Bauhofer, K. Schulte, *Composites Part A: Applied Science and Manufacturing*, 36 (2005) 1525-1535.
- [197] C.A. Mitchell, J.L. Bahr, S. Arepalli, M. James, R. Krishnamoorti, *Macromolecules*, 35 (2002) 8825-8830.
- [198] D. Qian, E.C. Dickey, R. Andrews, T. Rantell, *Applied Physics Letters*, 76 (2000) 2868.
- [199] E.T. Thostenson, Z. Ren, T.W. Chou, *Composites Science and Technology*, 61 (2001) 1899-1912.
- [200] X.L. Xie, Y.W. Mai, X.P. Zhou, *Materials Science and Engineering: R: Reports*, 49 (2005) 89-112.
- [201] N. Tsubokawa, *Polymer journal*, 37 (2005).
- [202] G. Wu, S. Asai, M. Sumita, H. Yui, *Macromolecules*, 35 (2002) 945-951.
- [203] M.K. Georges, R.P.N. Veregin, P.M. Kazmaier, G.K. Hamer, *Macromolecules*, 26 (1993) 2987-2988.
- [204] P.J. MacLeod, R.P.N. Veregin, P.G. Odell, M.K. Georges, *Macromolecules*, 30 (1997) 2207-2208.
- [205] M.N. Tchoul, W.T. Ford, M.L.P. Ha, I. Chavez-Sumarriva, B.P. Grady, G. Lolli, D.E. Resasco, S. Arepalli, *Chemistry of Materials*, 20 (2008) 3120-3126.
- [206] X. Lou, C. Detrembleur, V. Sciannamea, C. Pagnouille, R. Jérôme, *Polymer*, 45 (2004) 6097-6102.
- [207] P. Kirkegaard, N. Pedersen, M. Eldrup, Riso-M-2740, (1989).
- [208] J. Kansy, *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 374 (1996) 235-244.
- [209] J. Liu, Q. Deng, Y. Jean, *Macromolecules*, 26 (1993) 7149-7155.
- [210] R.B. Gregory, *Journal of Applied Physics*, 70 (1991) 4665-4670.
- [211] R. Zhang, H. Cao, H. Chen, P. Mallon, T. Sandreczki, J. Richardson, Y. Jean, B. Nielsen, R. Suzuki, T. Ohdaira, *Radiation Physics and Chemistry*, 58 (2000) 639-644.
- [212] G. Binnig, C.F. Quate, C. Gerber, *Physical review letters*, 56 (1986) 930-933.
- [213] J.T. Garrett, C.A. Siedlecki, J. Runt, *Macromolecules*, 34 (2001) 7066-7070.
- [214] R.S. McLean, B.B. Sauer, *Macromolecules*, 30 (1997) 8314-8317.
- [215] A. Takahashi, R. Kita, M. Kaibara, *Journal of Materials Science: Materials in Medicine*, 13 (2002) 259-264.

- [216] T.J. Nguyen, J.; Sung, L.; Gu, X.; Rezig, A.; Martin, D.; Martin, J. W., *Service Life Prediction: Challenge the Status Quo*, in: *Service Life Prediction: Challenge the Status Quo*, Service Life Prediction: Challenge the Status Quo, 2005, pp. 13.
- [217] K. Nakanishi, *Infrared absorption spectroscopy, practical*, Holden-Day, 1962.
- [218] E. Titus, N. Ali, G. Cabral, J. Gracio, P. Ramesh Babu, M. Jackson, *Journal of materials engineering and performance*, 15 (2006) 182-186.
- [219] Y. Wang, Z. Iqbal, S. Mitra, *journal of the American Chemical Society*, 128 (2006) 95-99.
- [220] C.G. Salzmann, S.A. Llewellyn, G. Tobias, M.A.H. Ward, Y. Huh, M.L.H. Green, *Advanced Materials*, 19 (2007) 883-887.
- [221] R.R. Nayak, A.M. Shanmugaraj, S.H. Ryu, *Macromolecular Chemistry and Physics*, 209 (2008) 1137-1144.
- [222] D. Wang, Z.Q. Chen, D.D. Wang, N. Qi, J. Gong, C.Y. Cao, Z. Tang, *Journal of Applied Physics*, 107 (2010) 023524-023528.
- [223] T. Koida, S.F. Chichibu, A. Uedono, A. Tsukazaki, M. Kawasaki, T. Sota, Y. Segawa, H. Koinuma, *Applied Physics Letters*, 82 (2003) 532-534.
- [224] G. Brauer, W. Anwand, D. Grambole, J. Grenzer, W. Skorupa, J. Čížek, J. Kuriplach, I. Procházka, C.C. Ling, C.K. So, D. Schulz, D. Klimm, *Physical Review B*, 79 (2009) 115212.
- [225] J.-Y. Kwon, H.-D. Kim, *Journal of applied polymer science*, 96 (2005) 595-604.
- [226] E. Orgilés-Calpena, F. Arán-Aís, A.M. Torró-Palau, C. Orgilés-Barceló, J.M. Martín-Martínez, *International Journal of Adhesion and Adhesives*, 29 (2009) 309-318.
- [227] J.W. Seo, B.K. Kim, *Polymer Bulletin*, 54 (2005) 123-128.
- [228] H. Pan, D. Chen, *European Polymer Journal*, 43 (2007) 3766-3772.
- [229] R.E. Wetton, *Thermal Analysis in Polymer Characterization*, Blackie, London, 1993.
- [230] N.S. Schneider, C.S.P. Sung, *Polymer Engineering & Science*, 17 (1977) 73-80.
- [231] J. Kwon, H. Kim, *Journal of Polymer Science Part A: Polymer Chemistry*, 43 (2005) 3973-3985.
- [232] E. Princi, S. Vicini, K. Castro, D. Capitani, N. Proietti, L. Mannina, *Macromolecular Chemistry and Physics*, 210 (2009) 879-889.
- [233] K.L. Ngai, L.-R. Bao, A.F. Yee, C.L. Soles, *Physical review letters*, 87 (2001) 215901.
- [234] L.E. Nielsen, *Journal of Macromolecular Science, Part C: Polymer Reviews*, 3 (1969) 69-103.
- [235] K. Ueberreiter, G. Kanig, *The Journal of Chemical Physics*, 18 (1950) 399-406.
- [236] A.V. Tobolsky, D. Katz, M. Takahashi, R. Schaffhauser, *Journal of Polymer Science Part A: General Papers*, 2 (1964) 2749-2758.
- [237] I.S. Gunes, F. Cao, S.C. Jana, *Journal of Polymer Science Part B: Polymer Physics*, 46 (2008) 1437-1449.
- [238] K. Morimoto, T. Suzuki, R. Yosomiya, *Polymer Engineering & Science*, 24 (1984) 1000-1005.
- [239] H.G. Kia, *Polymer composites*, 9 (1988) 237-241.
- [240] A. Mateen, A. Shamim, *Journal of Materials Science Letters*, 8 (1989) 927-930.
- [241] L.B. Weisfeld, J.R. Little, W.E. Wolstenholme, *Journal of Polymer Science*, 56 (1962) 455-463.

- [242] R. Zhang, P.E. Mallon, H. Chen, C.M. Huang, J. Zhang, Y. Li, Y. Wu, T.C. Sandreczki, Y.C. Jean, *Progress in Organic Coatings*, 42 (2001) 244-252.
- [243] L. Xie, G.B. DeMaggio, W.E. Frieze, J. DeVries, D.W. Gidley, H.A. Hristov, A.F. Yee, *Physical review letters*, 74 (1995) 4947-4950.
- [244] G.B. DeMaggio, W.E. Frieze, D.W. Gidley, M. Zhu, H.A. Hristov, A.F. Yee, *Physical review letters*, 78 (1997) 1524-1527.
- [245] K.G. Lynn, *Physical review letters*, 43 (1979) 391-394.
- [246] M. Stavola, S.J. Pearton, G. Davies, *Defects in electronic materials: symposium held November 30-December 3, 1987, Boston, Massachusetts, U.S.A, Materials Research Society, 1988.*
- [247] M. Fujinami, A. Tsuge, K. Tanaka, *Journal of Applied Physics*, 79 (1996) 9017-9021.
- [248] C.V. Anto, S. Abhaya, P. Magudapathy, G. Amarendra, K.G.M. Nair, *Journal of Physics D: Applied Physics*, 43 (2010) 325401.
- [249] Y.C. Jean, R. Zhang, H. Cao, J.-P. Yuan, C.-M. Huang, B. Nielsen, P. Asoka-Kumar, *Physical Review B*, 56 (1997) R8459-R8462.
- [250] Y.C. Jean, *Macromolecules*, 29 (1996) 5756-5757.
- [251] O. Mogensen, *Applied Physics A: Materials Science & Processing*, 6 (1975) 315-322.
- [252] H. Cao, R. Zhang, J.P. Yuan, C.M. Huang, Y.C. Jean, R. Suzuki, T. Ohdaira, B. Nielsen, *Journal of Physics: Condensed Matter*, 10 (1998) 10429.
- [253] D.W. Gidley, D.N. McKinsey, P.W. Zitzewitz, *Journal of Applied Physics*, 78 (1995) 1406-1410.
- [254] Y. Kishimoto, in *Positron Annihilation the proceedings of the Sixth International Conference on Positron Annihilation*, in, North Holland Publishing Co, 1982, pp. 815.
- [255] S. Awad, H. Chen, G. Chen, X. Gu, J.L. Lee, E. Abdel-Hady, Y. Jean, *Macromolecules*, (2011).
- [256] A. Uedono, L. Wei, T. Kawano, S. Tanigawa, R. Suzuki, H. Ohgaki, T. Mikado, *Le Journal de Physique IV*, 5 (1995) 199.
- [257] Y. Jean, R. Zhang, H. Cao, J.P. Yuan, C.M. Huang, B. Nielsen, P. Asoka-Kumar, *Physical Review B*, 56 (1997) R8459.
- [258] Y. Jean, H. Chen, L. Lee, J. Yang, *Acta Physica Polonica-Series A General Physics*, 113 (2008) 1385-1396.
- [259] J. Zhang, H. Chen, Y. Li, R. Suzuki, T. Ohdaira, Y. Jean, *Radiation Physics and Chemistry*, 76 (2007) 172-179.
- [260] J. Bohlen, R. Kirchheim, *Macromolecules*, 34 (2001) 4210-4215.
- [261] C. Wei, D. Srivastava, K. Cho, *Nano Letters*, 2 (2002) 647-650.
- [262] M. Yang, V. Koutsos, M. Zaiser, *The Journal of Physical Chemistry B*, 109 (2005) 10009-10014.
- [263] J. Brandrup, in: J.E. Mark (Ed.) *Polymer Data Hand Book*, Oxford University Press, NY, 1999, pp. 834.