

References

1. H. Shirakawa, E.J. Louis, A.G. McDiarmid, C.K. Chiang, A.J. Heeger, Synthesis of electrically conducting organic polymers: halogen derivatives of polyacetylene, (CH)_x, Journal of the Chemical Society, Chemical Communications 16 (1977) 578-580.
2. C.K. Chiang, C.R. Fincher Jr., Y.W. Park, A.J. Heeger, H. Shirakawa, E.J. Louis, S.C. Gau, A.G. McDiarmid, Electrical Conductivity in Doped Polyacetylene, Physical Review Letters 39/17 (1977) 1098-1101.
3. M.D. McGehee, E.K. Miller, D. Moses, A.J. Heeger, Advances in synthetic Metals: Twenty Years of Progress in Science and Technology, Ed. P. Bernier, S. Lefrant, G. Binden, Elsevier, Amsterdam-Lausanne-New York-Oxford-Shanon-Singapore-Tokyo, 1999, 98.
4. M. Pope, Ch.E. Swenberg, Electronic processes in organic crystals and polymers, Oxford University Press, Oxford-New York, 1999.
5. A.J. Heeger, N.S. Sariciftci, E.B. Namds, Semiconducting and metallic polymers, Oxford University Press, Oxford-New York, 2010.
6. P.A. Lane, Z.H. Kafafi, Organic Photovoltaics: Mechanisms, Materials and Devices, Ed. S-S Sun, S. Sariciftci, CRC Press Taylor and Francis Group 2005, 49.
7. A. Gołębowski, Elements of quantum mechanics and quantum chemistry, PWN, Warsaw, 1982 (in Polish).
8. L. Salem, The Molecular Orbital Theory of Conjugated Systems, W.A. Benjamin INC, New York, Amsterdam, 1966.
9. C.Y. Yang, S.A. Janekhe, Conjugated aromatic poly(azomethines). Characterization of structure, electronic spectra and processing of thin films from soluble complexes, Chemistry of Materials 3 (1991) 878-887.
10. C.Y. Yang, S.A. Janekhe, Conjugated aromatic polyimines. Synthesis, structure and properties of new aromatic polyazomethines, Macromolecules 28(1995) 1180-1196.
11. A. Kubono, N. Okui, Polimer thin films prepared by vapor deposition, Progress in Polymer Science 19 (1994) 389-438.
12. O. Thomas, O. Ingnes, M.R. Anderson, Synthesis and Properties of a Soluble Conjugated Poly(azomethine) with High Molecular Weight, Macromolecules, 31/8 (1998) 2676-2678.
13. W. Łužny, E. Stochmal-Pomorzańska, A. Proń, Structural properties of selected poly(azomethines) Polymer 40 (1999) 6611-6614.
14. W. Łužny, E. Stochmal-Pomorzańska, A. Proń, Crystalline structure determination of selected polyimines, Synthetic Metals 101/1-3 (1999) 69-70.
15. S.C. Suh, S.C. Shim, Synthesis and properties of a novel polyazomethine, the polymer with high photoconductivity and second-order optical nonlinearity, Synthetic Metals 114/1 (2000) 91-95.
16. S. H Jung, T.W. Lee, Y.C. Kim, D. H. Suh, H.N. Chao, Synthesis and characterization of fluorene-based poly(azomethines), Optical Materials 21 (2002) 169-173.
17. Y. Takahashi, M. Iijima, Y. Oishi, M. Kakinma, Y. Imai, Preparation of ultrathin films of aromatic polyamides and aromatic poly(amide-imides) by vapor deposition polymerization, Macromolecules 24 (1991) 3543-3546.
18. M.S. Weaver, D.D.C. Bradley, Organic elektroluminescence devices fabricated with chemical vapour deposited polyazomethine films, Synthetic Metals 83 (1996) 61-66.
19. F. Rohlfing, D.D.C. Bradley, Non linear Stark effect in polyazomethine and poly (p-phenylene-vinylene): The interconnections of chemical and electronic structure, Chemical Physics 227 (1998) 133-151.
20. J. McElvain, S. Tatsuura, F. Wudl, A.J. Heeger, Linear and nonlinear optical spectra of polyazomethines fabricated by chemical vapor deposition, Synthetic Metals 95/2 (1998) 101-105.
21. A. Iwan, D. Sek, Processible polyazomethines and polyketanils: From aerospace to light-emitting diodes and other advanced applications, Progress in Polymer Science 33/3 (2008) 289-345.
22. J. Weszka, M. Domański, B. Jarząbek, J. Jurusik, J. Cisowski, A. Burian, Influence of technological conditions on electronic transitions in chemical vapor deposited poly(azomethine) thin films, Thin Solid Films 516 (2008) 3098-3104.

23. P.J. Flory, Principles of Polymer Chemistry; Cornell University Press: Ithaca, 1971, 3.
24. J. Simon, J.-J. André, Molecular Semiconductors; Springer-Verlag, Berlin, 1985, 86.
25. C. Kittel, Introduction to Solid State Physics, John Wiley and Sons, Incorporation, Singapore, 1996.
26. B. Jarząbek, J. Weszka, M. Domański, J. Jurusik, J. Cisowski, Optical studies of aromatic polyazomethine thin films, *Journal of Non-Crystalline Solids* 354 (2008) 856.
27. J. Weszka, Thin films of aromatic polyazomethines, in *Polymer Thin Films*, Ed. Abbass A. Hashim, In-Tech, 2010, 93 - 111.
28. J. Weszka, H. Bednarski, M. Domański, Electronic structure of polyazomethine, *Journal of Chemical Physics* 131 (2009) 024901.
29. S. Brazovski, N. Kirova, A.R. Bishop, V. Klimov, D. McBrauch, N.N. Barashkov, J.P. Ferraris, Excitations and optical properties of phenylene-based conjugated polymers and oligomers, *Optical Materials* 9 (1998) 472-479.
30. N. Kirova, S. Brazovskii, A.R. Bishop, A systematic theory for optical properties of phenylene-based polymers, *Synthetic Metals* 100 (1999) 29-53.
31. S. Brazovski, N. Kirova, Optics of polymers in the light of solid state physics, *Synthetic Metals* 125/1 (2002) 129-138.
32. J. Weszka, B. Hajduk, M. Domański, M. Chwastek, J. Jurusik, H. Bednarski, P. Jarka, Tailoring electronic structure of polyazomethine thin films, *Journal of Achievements in Materials and Manufacturing Engineering*, 42/1-2 (2010) 180-187.
33. B. Hajduk., J. Weszka, J. Jurusik, Influence of LCVD technological parameters on properties of polyazomethine thin films, *Journal of Achievements in Materials and Manufacturing Engineering* 36/1 (2009) 41-48.
34. B. Hajduk, Doctorate thesis, Silesian University of Technology, Gliwice 2012 9 (in Polish).
35. B. Hajduk, J. Weszka, V. Cozan, B. Kaczmarczyk, B. Jarząbek, M. Domanski, Optical properties of polyazomethine with oxygen atom in the backbone, *Archives of Materials Science and Engineering* 32/2 (2008) 85-88.
36. J. Gąsiorowski, E.D. Głowacki, B. Hajduk, M. Siwy, M. Chwastek-Ogierman, J. Weszka, H. Neugebauer, N.S. Sariciftci, Doping-induced immobile charge carriers in polyazomethine: A spectroscopic study, *Journal of Physical Chemistry C* 117 (2013) 2584-2589.
37. H. Bednarski, M. Domański, J. Weszka, K. Sohlberg, First-principles studies of internal rotation in protonated trans-N-benzylideneaniline, *Journal of Molecular Structure: THEOCHEM* 908/1-3 (2009) 122-124.
38. M. Goeppert-Mayer, A.L. Sklar, Calculations of the Lower Excited Levels of Benzene, *Journal of Chemical Physics* 6 (1938) 645-652.
39. D. Marquardt, *Journal of the Society for Industrial and Applied Mathematics* 11/2 (1963) 431-441.
40. W. Moffit, Configurational Interaction in Simple Molecular Orbital Theory, *Journal of Chemical Physics* 22 (1954) 1820-1829.
41. C.-L. Liu, F.-C. Tsai, C.-C. Chang, K.-H. Hsieh, J.-L. Lin, W.-C. Chen, Theoretical analysis on the geometries and electronic structures of coplanar conjugated poly(azomethine)s, *Polymer* 46/13 (2005) 4950-4957.
42. B. Jarząbek, J. Weszka, M. Domański, J. Jurusik, J. Cisowski, Optical properties of amorphous polyazomethine thin films, *Journal of Non-Crystalline Solids* 352 (2006) 1660-1662.
43. B. Hajduk, J. Weszka, B. Jarząbek, J. Jurusik, M. Domański, Physical properties of polyazomethine thin films doped with iodine, *Journal of Achievements in Materials and Manufacturing Engineering* 24 (2007) 67.
44. B. Jarząbek, B. Kaczmarczyk, J. Jurusik, M. Siwy, J. Weszka, Optical properties of thin films of polyazomethine with flexible side chains, *Journal of Non-Crystalline Solids* 375 (2013) 13-18.