

## BIBLIOGRAPHY

- [1] B. Rodgers and W. Waddell, *The science and technology of rubber*, 4th ed., 2013, pp. 653-695.
- [2] Malaysian rubber board, "Natural rubber statistics 2018," Unit Kajian dan Kemajuan Pasaran, Lembaga Getah Malaysia, 2018.
- [3] J. M. Martin and W. K. Smith, *Handbook of rubber technology*, 1 ed., vol. 1, S. C. Bhatia, Ed., New Delhi: CBS publishers and distributors, 2004.
- [4] G. A. Blengini, D. Blagoeva, J. Dewulf, C. Torres de Matos and V. Nita, "Assessment of the Methodology for Establishing the EU List of Critical Raw Materials," Research, Luxembourg, 2017.
- [5] O. J. Miranda , J. J. Alvarado-Gill and M. R. Ezquível, "Generalised Bruggeman formula for the effective thermal conductivity of particulate composites with an interface layer," *International journal of thermodynamics*, vol. 31, pp. 975-986, 2010.
- [6] L. Vaysse, F. Bonfils, P. Thaler and J. Sainte-bruve, "Natural rubber," in *Sustainable solutions for modern economies*, J. H. Clark and G. A. Kraus, Eds., Cambridge, Royal society of chemistry, 2009, pp. 339-368.
- [7] R. N. Rethon, *Particulate-filled polymer composites*, 2nd ed., Shawbury: Smithers Rapra, 2003, p. 520.
- [8] K. D. Sadhan and R. Jim, *white rubber technologist's handbook*, vol. 1, Shaw-bury: Smithers Rapra, 2001, p. 140.
- [9] P. T. Hao, H. Ismail and A. S. Hashim, "Study of two types of styrene butadiene rubber in tyre tread compounds," *Polymer testing*, vol. 5, no. 20, p. 539544, 2001.
- [10] L. L. Jean , "Rubber filler interactions and rheological properties in filled compounds," *Prog. Polymer Science* , vol. 27, pp. 627-687, 2002.
- [11] B. M. Erman, J. E. Roland and C. Michael, *Science and technology of rubber*, 4th ed.,

USA: Elsevier, 2013, p. 765.

- [12] W. Niedermeier, J. Frohlich and H. D. K. Luginsland, "Reinforcement mechanism in the rubber matrix by active fillers," *Raw materials and applications*, pp. 356-366, 2002.
- [13] J. Song, X. Li, K. Tian, L. Ma, W. Li and S. Yao, "Thermal conductivity of natural rubber nanocomposites with hybrid fillers," *Chinese Journal of Chemical Engineering*, vol. 27, pp. 928 - 934, 2019.
- [14] C. K. Leong and D. D. U. Chung, "Carbon black dispersions as thermal pastes that surpass solder in providing high thermal contact conductance," *Carbon*, vol. 41, pp. 2459-2469, 2003.
- [15] D. N. Gultekin and I. Usta, "Investigation of thermal and electrical conductivity properties of carbon black coated cotton fabrics," *Marmara journal of pure and applied sciences*, no. 1, pp. 91-94, 2015.
- [16] S. Saleh and C. Nakason, "Influence of modified natural rubber and structure of carbon black on properties of natural rubber compounds," *Polymer Composites*, vol. 33, no. 4, pp. 489-500, 2012.
- [17] Z. H. Li, J. Zhang and S. J. Chen, "Effects of carbon blacks with various structures on vulcanization and reinforcement of filled ethylene-propylene-diene rubber," *Exp. Polym. Lett.*, vol. 2, no. 10, pp. 695-704, 2008.
- [18] J. B. Donnet, R. C. Bansal and M. J. Wang, *Carbon black*, 2nd ed., New York: Marcel Dekker, 1993.
- [19] I. A. Tsekemes, R. Kochetov, P. H. F. Morshius and J. J. Smit, "Thermal conductivity of polymeric composites: A review," in *International conference on solid dielectrics*, Bologna, 2013.
- [20] S. L. Shinde and J. S. Goela, *High thermal conductivity materials*, Springer, 2006.
- [21] D. M. Bigg, "Thermally conductive polymer compositions," *Polymer composites*, vol. 7, no. 3, p. 125, 1986.

- [22] C. Huang, X. Qian and R. Yang, "Thermal conductivity of polymers and polymer nanocomposites," *Materials Science and Engineering*, vol. 132, pp. 1-22, 2018.
- [23] H. G. Chae and S. Kumar, "Making strong fibres," in *Science*, 5865 ed., vol. 319, Atlanta USA, 2008, pp. 908-909.
- [24] C. Huang, X. Qian and R. Yang, "Thermal conductivity of polymers and polymer nanocomposites," *Materials Science and Engineering R*, vol. 132, pp. 1-22, 2018.
- [25] I. L. Ngo , C. Byon and J. B. Lee , "Analytical study on thermal conductivity enhancement of hybrid-filler polymer composites under high thermal contact resistance," *International journal of heat and mass transfer*, vol. 126, pp. 474-484, 2018.
- [26] Z. Han and A. Fina, "Thermal conductivity of carbon nanotubes and their polymer nanocomposites: A review," *Polymer Science*, vol. 36, no. 7, pp. 914-944, 2011.
- [27] S. S. Samsudin, A. M. S. Majid, M. J. M. Ridzuan and A. F. Osman, "Thermal polymer composites of hybrid fillers," 2019.
- [28] H. Chen, V. V. Ginzburg, J. Yang , Y. Yang, W. Liu, Y. Huang, L. Du and B. Chen , "Thermal conductivity of polymer based composites," *Progress in polymer science* , vol. 59, pp. 41-85, 2016.
- [29] Z. Han and A. Fina, "Thermal conductivity of graphene-polymer composites mechanisms, properties and applications," *Polymers*, vol. 9, no. 9, pp. 914-944, 2011.
- [30] I. L. Ngo and Byon C, "Thermal conductivity of particle filled polymers," *Polymer science: Reseache advances ,practical applications and educational aspects*, pp. 554-565, 2016.
- [31] R. B. Bird, W. E. Stewart and E. N. Lightfoot, *Transport Phenomena*, John Wiley and Sons, 2007, pp. 281-282.
- [32] K. Pietrak and T. S. Wisniewski , "A review of models for effective thermal conductivity of composite materials," *Journal of power technologies*, vol. 95, no. 1, pp. 14-24, 2015.
- [33] V. Terentyeva, I. U. Perera and N. Narendran, "Analying theoretical models for

predicting thermal conductivity of composite materials for LED heat sink applications,” Portland Oregon USA, 2017.

- [34] A. D. K. A. Bejan, *Heat transfer handbook*, New York : John Wiley and Sons, 2003.
- [35] E. Solorzano, J. A. Reglero, M. A. Rodriguez-Perez, D. Lehmhus, M. Wichmann and J. A. d. Saja, “An experimental study on the thermal conductivity of aluminum foams by using the transient plane source method,” *International journal of heat and mass transfer*, vol. 51, no. 1, pp. 6259-6267, 2008.
- [36] R. C. Kerschbaumer, S. Stieger, M. Gschwandl, T. Hutterer, M. Fasching, B. Lechner, L. Meinhart, J. Hildenbrandt, B. Schritteser, P. F. Fuchs, G. R. Berger and W. Friesenbichler, “Comparison of steady -state and transient thermal conductivity testing methods using different industrial rubber compounds,” *Polymer testing*, vol. 80, no. 1, pp. 106-121, 2019.
- [37] S. E. Gustafsson, “Transient plane source techniques for thermal conductivity and thermal diffusivity measurements of solid materials,” *Rev. Sci. Instrum.*, vol. 3, no. 62, pp. 797-804, 1991.
- [38] Y. Li , C. Shi, J. Liu, J. Shao, Z. Chen, D. Dorantes-Gonzalez and X. Hu, “Improving the accuracy of the transient plane source method by correcting probe heat capacity and resistance influences,” *Measurement Science and Technology*, vol. 25, no. 015006, pp. 1-7, 2014.
- [39] M. Ahadi, M. Andisheh-Tadbir, M. Tam and M. Bahrami, “An improved transient plane source methods for measuring thermal conductivity of thin films: Deconvoluting thermal contact resistance.” *International Journal of Heat and Mass Transfer*, vol. 96, pp. 371-380, 2016.
- [40] J. S. Gustavsson, M. Gustavsson and S. E. Gustafsson, “On the use of the hot disk thermal constants analyser for measuring the thermal conductivity of thin samples of electrically insulating materials,” in *24 th International Thermal Conductivity Conference* , Lancaster PA, 1999.
- [41] ISO 22007-2, *Transient plane heat source method*, 1 ed., Geneva, 2017.

- [42] H. Gunasekara, A. Jayasinghe , M. Lasantha and L. Liyanage , “Increasing the thermal conductivity of rubber by using natural graphite as an additive,” Sri Lanka, 2018.
- [43] A. J. Brahil, J. K. Ahmed, J. K. Ban and Nabil H Hameed, “Effect of grpahite on the properties of natural rubber,” *Journal of Babylon university/engineering sciences*, vol. 24, no. 1, 2016.
- [44] B. M. Suleiman , “Thermal conductivity and diffusivity of polymers,” *International journal of physics: Study and research*, vol. 1, no. 1, pp. 54-58, 2018.
- [45] Evans, M S, “Tire compounding for improved performance,” Rapra Technology Limited, Shropshire UK, 2001.
- [46] S. Pinizzotto, “The condition and outlook of world natural rubber supply and demand,” in *16th Shanghai Derivative market Forum*, Shanghai, 2019.
- [47] Anne & Russ Events EER Limited, “The composition of a tire: Typical components,” The waste and resources action program, Branbury Oxon USA, 2006.
- [48] Q. H. Mu and S. H. Y. Feng, “Thermal conductivity of graphite/silicone rubber prepared by solution intercalation,” *Thermochim Acta*, vol. 462, pp. 70-75, 2007.
- [49] J. Song, L. Ma, Y. He, H. Yan, Z. Wu and W. Li, “Modified graphite filled natural rubber composites with good thermal conductivity,” *Chinese journal of chemical engineering*, vol. 23, pp. 853-859, 2015.
- [50] I. Krupa and I. Chodak, *European PolymerJournal*, vol. 37, no. 11, pp. 2159-2168, 2001.
- [51] J. M. Sloan, “Butyl Rubber: Compound development and characterisation,” Army research laboratory, 2000.
- [52] Rubber manufacturers association (US) ; Rubber association of Canada, Sheet rubber handbook: Gasket and packing materials, 3 ed., New york: Rubber manufacturers association, 1980.

- [53] J. A. King, R. L. Barton, R. A. Hauser and J. M. Keith, "Synergistic effects of carbon fillers in electrically and thermally conductive liquid crystal polymer based resins," *Polymer composites*, vol. 29, no. 4, pp. 421-428, 2008.
- [54] A. Bouguerra, A. Ait-Mokhtar, O. Amiri and M. B. Diop, "Measurement of thermal conductivity, thermal diffusivity and heat capacity of highly porous building materials using transient plane source technique," *Pergamon, International Comm. Heat Mass Transfer*, vol. 28, no. 8, pp. 1065-1078, 2001.
- [55] I. L. Ngo and C. Byon, "Thermal conductivity of particle filled polymers," *Polymer Science*, vol. 56, no. 3, pp. 556-565, 2015.
- [56] I.-L. Ngo, S. V. P. Vattikuti and C. Byon, "A modified Hashin-Shtrikman model for predicting the thermal conductivity of polymer composites reinforced with randomly distributed hybrid fillers," *International journal of heat and mass transfer*, vol. 1, no. 83, pp. 408-415, 2017.