

DAFTAR PUSTAKA

- Abdelsayed, V., Moussa, S., Hassan, H.M., Aluri, H.S., Collinson, M.M., dan El-Shall, M.S., 2010, Photothermal Deoxygenation of Graphite Oxide with Laser Excitation in Solution and Graphene-Aided Increase in Water Temperature, *J. Phys. Chem. Lett.*, 1, 2804-2809.
- Addou, R., Dahal, dan A., Batzill, M., 2012, Graphene on Ordered Ni-Alloy Surfaces Formed by Metal (Sn, Al) Intercalation between Graphene/Ni (111), *Surf. Sci.*, 606, 13-14, 1108-1112.
- Allen, M. J., Tung, V. C., dan Kaner, R. B., 2010, Honeycomb Carbon: A Review of Graphene, *Chem. Rev.*, 110, 132–145.
- Aminayi, P. dan Abidi, N., 2013, Imparting Super Hydro/Oleophobic Properties to Cotton Fabric by Means of Molecular and Nanoparticles Vapor Deposition Methods, *Appl. Surf. Sci.*, 287, 223-231.
- Artur, C., dan Paolo, S., 2016, Supramolecular Approaches to Graphene: from Self-Assembly to Molecule-Assisted Liquid-Phase Exfoliation, *Adv. Mater.*, 28, 6030–6051.
- Ashokkumar, M., Lee, J., Lida, Y., Yasui, K., Kozuka, T., dan Tuziuti, T., 2009, The Detection and Control of Stable and Transient Acoustic Cavitation Bubbles, *Phys. Chem.*, 11, 10118.
- Badri, M.A.S., Salleh, M.M., Noor, N.F.Md., Rahman, M.Y.A., dan Umar, A.A., 2017, Green Synthesis of Few-Layered Graphene from Aqueous Processed Graphite Exfoliation for Graphene Thin Film Preparation, *Mater. Chem. Phys.*, 193, 212-219.
- Balandin, A.A., 2011, Thermal Properties of Graphene and Nanostructured Carbon Materials, *Nat. Mater.*, 10, 569–581.
- Bazylewski, P., Sharbaf, A.A., Ezugwu, S., Ouyang, T., Park, J., Fanchini, G., 2006, Graphene Thin Films and Graphene Decorated with Metal Nanoparticles, *Intech.*, 3-16.
- Bianco, A., 2013, Graphene: Safe or Toxic? The Two Faces of the Medal, *Chem. Int. Ed.* 52, 4986-4997.

- Blakslee, O.L., Proctor, D.G., Seldin, E.J., Spence, G.B., dan Weng, T., 1970, Elastic Constants of Compression-Annealed Pyrolytic Graphite, *J. Appl. Phys.* 41, 3373–3382.
- Bolotin, K.I., Sikes, K.J., Jiang, Z., Klima, M., Fudenberg, G., Hone, J., Kim, P., dan Stormer, H.L., 2008, Ultrahigh Electron Mobility in Suspended Graphene. *Solid. State. Commun.*, 146, 351–355.
- Caldeira, B.J., 2011, *Transporte Elétrico em Nanoestrutura de Grafeno: Influência da Funcionalização, da Geometria e da Dopagem do Substrato*, Belo Horizonte: Universidade Federal de Minas Gerais.
- Chia J.S.Y., Tan, M.T.T, Khiew, P.S., Chin, J.K., Lee, H., Bien, D.C.S., dan Siong, C.W., 2014, A Novel One Step Synthesis of Graphene Via Sonochemical-Assisted Solvent Exfoliation Approach for Electrochemical Sensing Application. *Chem. Engg. J.*, 249, 270.
- Chakarova-Kack, S.D., Schroder, E., Lundqvist, B.I., dan Langreth, D.C., 2006, Application of van der Waals Density Functional to an Extended System: Adsorption of Benzene and Naphthalene on Graphite, *Phys. Rev. Lett.*, 96, 14
- Chung, D.D. L., 2002, Review Graphite, *J. Mater. Sci.*, 37, 1475-1489.
- Coleman JN, 2009, Liquid-Phase Exfoliation of Nanotubes and Graphene, *Adv. Funct. Mater.*, 19, 3860-3695.
- Cote, L.J., Cruz-Silva, R., dan Huang, J., 2009, Flash Reduction and Patterning of Graphite Oxide and Its Polymer Composite, *J. Am. Chem. Soc.*, 131, 31,11027-11032.
- Das, A., Chakraborty, B., Sood, A.K., 2008, Raman Spectroscopy of Graphene on Different Substrates and Influence of Defects, *Bull. Mater. Sci.*, 31, 579.
- Dave, S., 2016, Applications of Graphene for Communication, Electronics and Medical Fields: A Review, 10, 2438.
- Dey, A., Chroneos, N., Braithwaite, N.St.J., Gandhiraman, R., dan Krishnamurthy, 2016, Plasma Engineering of Graphene, *App. Phys. Rev.*, 3, 021301.

- Ding, Y.H., Zhang, P., Zhuo., Q., Ren, H.M., Yang, Z.M., dan Jiang, Y., 2011, A Green Approach to the Synthesis of Reduced Graphene Oxide Nanosheets under UV Irradiation, *Nanotechnology*, 22, 21.
- Dresselhaus, M.S., 2008, Raman Spectroscopy as a Probe of Graphene and Carbon Nanotubes, *Phil. Trans. R. Soc. A*, 28, 366, 1863.
- Eda, G. Dan Chhowalla, M., 2010, Chemically Derived Graphene Oxide: towards Large-Area Thin-Film Electronics and Optoelectronics, *Adv. Mater.*, 22, 2392–415.
- Eloïse Lancelot, 2011, Perspective on Raman Spectroscopy of Graphene, *J. Phys. Chem. C.*, 115, 12, 5115–5122.
- Fasolino, A., Los J.H., dan Katsnelson, M.I., 2007, Intrinsic Ripples in Graphene, *Nat. Mater.* 6, 858–861.
- Ferrari, A.C., 2007, Raman Spectroscopy of Graphene and Graphite: Disorder, Electron–Phonon Coupling, Doping and Nonadiabatic Effect, *Solid. State. Commun.* 143, 47–57.
- Ferrari A.C., Meyer, J.C., Scardaci, V., Casiraghi, C., Lazzeri, M., Mauri, F., Piscanec, S., Jiang, D., Novoselov, K.S., Roth, S., dan Geim, A.K., 2006, Raman Spectrum of Graphene and Graphene Layers, *Phys. Rev. Lett.*, 18, 97.
- Gabriela, M.C., Ma, S.D.C.D.V., dan Vasquez M.R., 2018, Properties of Spray-Deposited Liquid-Phase Exfoliated Graphene Films, *Jpn. J. Appl. Phys.*, 57, 01AF06.
- Geim, A.K. dan Novoselov K.S., 2007, *The Rise of Graphene*, *Nat Mater*, 6, 11–19.
- Gomez, C.V., Tene, T., Guevara, M., Usca, G.T., Colcha, D., Brito, H., Moline, R., Bellucci, S., dan Tavolaro, 2019, Preparation of Few-Layer Graphene Dispersion from Hydrothermally Expanded Graphite, *Appl. Sci.*, 9, 2539.
- Goncalves, A.M.M., Trindade, A.R., Costa, C.S.M.F., Bernado, J.C.S, Johnson, I., Fonseca, M.A., 2010, PVT, Viscosity, and Surface Tension of Ethanol: New Measurements and Literature Data Evaluation, *J. Chem. Thermodyn.*, 42, 8, 1039–1049

- Guerra, V., Wan, C., Degirmenci, V., Sloan, J., Presvytis, D., Watson, M., dan McNally, T., Characterisation of Graphite Nanoplatelets (GNP) Prepared at Scale by High-Pressure Homogenisation, *J.Mater. Chem. C*, 7, 6383.
- Guo S dan Dong S, 2011, Graphene Nanosheet: Synthesis, Molecular Engineering, Thin Film, Hybrids, and Energy and Analytical Applications, *Chem Soc Rev*, 40, 2644–2672.
- Guo, B., Liu, Q., Chen, E., Zhu, H, Fang, L, dan Gong, J.R, 2010, Controllable N-Doping of Graphene, *Nano.Lett.*, 10, 4975.
- Hansen, C.M, 2007, *Hansen Solubility Parameters - A User's Handbook*. CRC Press, Boca Raton.
- He, H., Klinowski, J., Forster, M., dan Lerf, A., 1998, A New Structural Model for Graphite Oxide, *Chem. Phys. Lett.* 287, 53–6.
- Hernandez, Y., Lotya, M., Rickard, D., Bergin, S.D., dan Coleman J.N., 2010, Measurement of Multicomponent Solubility Parameters for Graphene Facilitates Solvent Discovery, *Langmuir*, 26, 3208–3213.
- Huang, Y., Liang, J., dan Chen, Y., 2012, The Application of Graphene Based Material for Actuators, *J. Mater. Chem.*, 22, 9, 3671-3679.
- Hummers, W.S. dan Offeman, R.E., 1958, *Preparation of Graphitic Oxide*, *J. Am. Chem. Soc.*, 80, 6, 1339.
- Israelachvili, J.N., 2011, *Intermolecular and Surface Forces*, 3rd Edition, Academic Press, California.
- Koehler, F.M., Jacobsen, A., Ensslin K., Stampfer, C., dan Stark, W.J., 2010, Elective Chemical Modification of Graphene Surfaces: Distinction between Single and Bilayer Graphene, *Small*, 6, 1125–1130.
- Kozhukharov, S. dan Tchaoushev, S., 2013, Spray Pyrolysis Equipment for Various Applications. *J. Chem. Technol. Metall.*, 48, 111–118.

- Lee, C., Wei, X.D., Kysar, J.W., dan Hone J, 2008, High-Strength Chemical-Vapor-Deposited Graphene and Grain Boundaries, *Science*, 6136, 340, 1073-1076.
- Lee, C., Wei, X., Kysar, J.W., dan Hone, J., 2008, Measurement of the Elastic Properties and Intrinsic Strength of Monolayer Graphene, *Science*, 321, 385-388.
- Lerf, A., He, H., Forster, M., dan Klinowski, J., 1998, Structure of Graphite Oxide Revisited, *J. Phys. Chem B*, 102, 23, 4477-82.
- Li, D., Muller, M.B., Gilje, S., Kaner, R.B., dan Wallace, G.G., 2008, Processable Aqueous Dispersions of Graphene Nanosheets, *Nanotechnology*, 3, 101-105.
- Lin. Y., Lin, C., dan Chiu, P., 2010, Contrllabe Graphene N-Doping with Ammonia Plasma, *Appl. Phys. Lett.*, 96, 133110.
- Lin, Z., Karthik, P.S., Hada, M., Nishikawa, T., dan Hayashi, Y., 2017, Simple Technique of Exfoliation and Dispersion of Multilayer Graphene from Natural Graphite by Ozone-Assisted Sonication. *J. Nanomater.*, 7, 125, 1-10.
- Li., X., Colombo, L., dan Rodney, S., 2016, Synthesis of Graphene Films on Copper Foils by Chemical Vapor Deposition, *Adv. Mater.*, 8, 29, 6247-6252.
- Li, X., Magnuson, C.W., Venugopal, A., An, J., Suk, J.W., Han, B., Borysiak, M., Cai, W., Velamakanni, A., Zhu, Y., Fu, L., Vogel, E.M., Voelkl, E., Colombo, L., dan Ruoff, R.S., 2010, Graphene Films with Large Domain Size by a Two-Step Chemical Vapor Deposition Process, *Nano. Lett.*, 10, 4328.
- Lilov, S., 1993, Study of the Equilibrium Processes in the Gas Phase during Silicon Carbide Sublimation, *Mater. Sci. Eng. B*, 21, 65-69.
- Loh, K.P., Bao, Q.L., Ang, P.K., dan Yang, J.X., 2010, The Chemistry of Graphene, *J. Mater. Chem.*, 20, 2277-2289.
- Logu, T., Raliya, R., Kavidya, S., Soundarrajan, P., Biswas, P., dan Sethuraman,

- K., 2017, Hierarchical Architecture of CuInS₂ Microsphere Thin Films: Altering Laterally Aligned Crystallographic Plane Growth by Cd and V Doping, *R. Soc. Chem.*, 44, 1-36.
- Lotya, M., Hernandez, Y., King, P., Smith, R., Nicolosi, V., Karlsson, L., Blighe, F., De, S., Wang, S., McGovern, I., Duesberg, G., dan Coleman, J., 2009, Liquid Phase Production of Graphene by Exfoliation of Graphite in Surfactant/Water Solution, *J. Am. Chem. Soc.*, 131, 3611.
- Lui, C.H., Liu, L., Mak, K.F., Flynn, G.W., Heinz, G.F., 2009, Ultraflat graphene, *Nature*, 462, 339-341.
- Luque de Castro, M.D., dan Capote, F.P., 2007, *Analytical Applications of Ultrasound*, Elsevier, Amsterdam.
- Machunoa, L.G.B., Oliveiraa, A.R., Furlana, R.H., Limaa, A.B., Moraisa, L.C., Gelamoa, R.V., 2015, Multilayer Graphene Films Obtained by Dip Coating Technique, *Mater. Res.*, 18, 4, 775-780.
- Ma, H., Shen, Z., Yi, M., Ben, S., Liang, S., Liu, L., Zhang, Y., Zhang, X., dan Ma, M., 2017, Direct Exfoliation of Graphite in Water with Addition of Ammonia Solution, *J. Colloid. Interf. Sci.*, 503, 68-75.
- Majid Monajjemi, 2017, Liquid-Phase Exfoliation (LPE) of Graphite towards Graphene: An Ab Initio Study, *J. Mol. Liq.*, 230, 461-472.
- Manson, T.J., dan Lorimer, J.P., 2002, *Applied Sonochemistry: Uses of Power Ultrasound in Chemistry and Processing*, Wiley-VCH, Darmstadt, Germany.
- Ma, X. dan Zhang, H., 2013, Fabrication of Graphene Films with High Transparent Conducting Characteristics, *Nanoscale. Res. Lett.* 8., 440, 1-6.
- McMahon, G., 2007, *Analytical Instrumentation: A Guide to Laboratory, Portable and Miniaturized Instruments*, John Wiley & Sons, Ltd. ISBN: 978-0-470-02795-0.
- Mohammad, H., dan Paransa, A., 2012, Graphene: Synthesis and Applications in Biotechnology – A review, *World Applied Programming*, 2, 6, 377-388.
- Morozov, S.V., Novoselov, K.S., Katsnelson, M.I., Schedin, F., Elias, D.C., Jaszczak, J.A., dan Geim, A.K., 2008, Giant Intrinsic Carrier Mobilities in Graphene and Its Bilayer, *Phys. Rev. Lett.* 100, 11-14.

- Morozov, S.V., Novoselov, K.S., Schedin, F., Jiang, D., Firsov, A.A., dan Geim, A.K., 2005, Two-Dimensional Electron and Hole Gases at the Surface of Graphite, *Phys. Rev. B.*, 72, 20, 201401.
- Nair, R.R., Blake, P., Grigorenko, A.N., Novoselov, K.S., Booth, T.J., Stauber, T., Peres, N.M. R., dan Geim, A.K., 2008, Fine Structure Constant Defines Visual Transparency of Graphene, *Science*, 58881, 320, 1308.
- Naito, K., Yoshinaga, N., Tsutsumi, E., dan Akasaka, Y., 2013, Transparent Conducting Film Composed of Graphene and Silver Nanowire Stacked Layers. *Synthetic. Metals.*, 175, 1, 42-46.
- Nasrollahzadeh, M., Atarod, M., Sajjadi, M.S., Sajadi, M., Issaabadi, 2019, Chapter 6 – Plant-Mediated Green Synthesis of Nanostructures: Mechanics, Characterization, and Application, *Interface. Sci.Technol.*, 28, 199-322.
- Nemes-Incze, P., Osváth, Z., Kamarás, K., Biró, L.P., 2008, Anomalies in Thickness Measurements of Graphene and Few Layer Graphite Crystals by Tapping Mode Atomic Force Microscopy, *Carbon*, 46, 1435–1442.
- Novoselov, K.S., 2011, Nobel Lecture: Graphene: Materials in the Flatland, *Rev. Mod. Phys.*, 83, 3, 837-849.
- Novoselov, K., Geim, A., Morozov, S., Jiang, D., Zhang, Y., Dubonos, S., Grigorieva, I., dan Firsov, A., 2004, Electric Field Effect in Atomically Thin Carbon Films, *Science*, 5696, 306, 666-669.
- Perkampus dan Heinz-Helmut, 1992, *UV-VIS Spectroscopy and Its Applications*, Springer, Verlag Berlin Heidelberg.
- Paredes, J.I., Villar-Rodil, S., Martinez-Alonso, A., Tascon, J.M.D., 2008, Graphene Oxide Dispersions in Organic Solvents. *Langmuir*, 24, 10560–10564.
- Rahman, M.R., Rashid, Md.M., Islam Md.Mashur., dan Akanda, Md.M., 2019, Electrical and Chemical Properties of Graphene over Composite Materials: A Technical Review,
- Rao, C.N.R., Maitra, U., dan Matte, H.S.S., *Synthesis*, 2013, *Characterization, and Selected Properties of Graphene*, Rao, C.N.R., dan Sood, A.K., *Graphene Synthesis, Properties, and Phenomena*, Wiley-VCH, Weinheim.

- Rasheed, A.K., Khalid, M., Rashmi, W., Gupta, T.C.S.M., dan Chan, A., 2016, Graphene Based Nanofluids and Nanolubricants-Review of Recent Developments. *Renew. Sust. Energ. Rev.*, 63, 346–362.
- Rümmeli, M.H., Rocha, C.G., Ortmann, F., Ibrahim, I., Sevincli, H., Börrnert, F., Kunstmann, J., Bachmatiuk, A., Pötschke, M., Shiraishi, M., Meyyappan, M., Büchner, B., Roche, S., dan Cuniberti, G., 2011, Graphene: Piecing It Together, *Adv. Mater.* 23, 4471–4490
- Saito, R., Hofmann, M., Dresselhaus, G., Jorio, A., Dresselhaus, M.S., 2011, Raman Spectroscopy of Graphene and Carbon Nanotubes. *Adv. Phys.*, 60, 3, 413-550.
- Sharma, R., Baik J.H., Perera, C.J., dan Strano, M.S., 2010, Anomalous Large Reactivity of Single Graphene Layers and Edges toward Electron Transfer Chemistries, *Nano. Lett.*, 10, 398–405.
- Silva, L.I., Mirabella, D.A., Tomba, J.P., Riccardi, C.C., 2020, Optimizing Graphene Production in Ultrasonic Devices, *Ultrasonics.*, 100.
- Singh, R. dan Tripathi, C.C., 2017, Enhancing Liquid-Phase Exfoliation of Graphene with Addition of Anthracene in Organic Solvents, *Arab. J. Sci. Eng.*, 42, 2417–2424.
- Singh, R. dan Tripathi, C.C., 2019, A Comparative Study of Organic Solvents, Ionic Liquids, Surfactants and Acids for Liquid Phase Exfoliation of Graphene, *Indian J. Pure. App. Phy.*, 57, 322-333.
- Song, Y., Fang, W., Brenes, R., dan Kong, J., 2015, Challenges and Opportunities for Graphene as Transparent Conductors in Optoelectronic, *Nano. Today.*, 10, 681.
- Spanu, L., Sorella, S., dan Galli, G., 2009, Nature and Strength of Interlayer Binding in Graphite, *Phys. Rev. Lett.*, 103, 19.
- Stankovich, S., Dikin, D.A., Piner, R.D., Kohlhaas, K.A., Kleinhammes, Jia, Y.Y., Wu Y., Nguyen S.T., dan Ruoff, S., 2007, *Carbon*, 45, 1558.
- Stoller, M.D., Park, S., Zhu, Y., An, J., dan Ruoff, J.S., 2008, Graphene-Based Ultracapacitors, *Nano. Lett.* 8, 3498–3502.

- Sutkar, V.S, Gogate, P.R., dan Csoka, L., 2010, Theoretical Prediction of Cavitation Activity Distribution in Sonochemical Reactor, *Chem. Eng. J.*, 158, 290.
- Tanugi-Cohen, D. Dan Jeffrey, C., 2014, Water Permeability of Nanoporous Graphene at Realistic Pressure for Reverse Osmosis Desalination, *J. Chem. Phys.*, 141, 074704.
- Vadukumpully, S., Paul, J., dan Valiyaveetil, S., 2009, *Cationic Surfactant Mediated Exfoliation of Graphite Into Graphene Flakes*, *Carbon*, 47, 3288–3294.
- Van Bommel, A.J., Crombeen, J.E., dan van Tooren, A., 1975, LEED and Auger Electron Observations of the SiC(0001) Surface. *Surf. Sci.*, 48, 463–472.
- Vasanthi, V., Gayathri, S., Anitha, K., Ramakrishnan, V., 2017, Exfoliation of High-Quality Graphene in Volatile and Nonvolatile Solvents, *Graphene. Technol.*, 2, 29-40.
- Vasanthi, V., Logu, T., Ramakrishnan, Anitha K., Sethuraman, 2019, Study of Electrical Conductivity and Photoelectric Response of Liquid Phase Exfoliated Graphene Thin Film Prepared Via Spray Pyrolysis Route, *Carbon. Lett.*, 1-7.
- Vijayaraghavan, A., 2013, *Graphene – Properties and Characterization*, Vajtai, R., *Handbook of Nanomaterials*, Springer, USA.
- Winterlin, J., dan Bocquet, M.L., 2009, Graphene on Metal Surfaces, *Surf. Sci.*, 603, 1841.
- Wang, H., Wang, Y., Cao, X., Feng, M., dan Lan, G., 2009, Vibrational Properties of Graphene and Graphene Layers, *J. Raman Spectrosc.* 1791,
- Wang, H., Yuan, X., Wu, Y., Huang, H., Peng, X., Zeng, G., Zhong, H., Liang, J., dan Ren, M., 2013, Graphene-Based Materials: Fabrication, Characterization and Application for the Decontamination of Wastewater and Waste Gas and Hydrogen Storage/Generation, *Adv. Colloid Interf. Sci.* 195–196, 19–40.
- Wang, S., Yi, Mi., dan Shena, Z., 2016, The Effect of Surfactants and Their Concentration on The Liquid Exfoliation of Graphene, *R. Soc. Chem.*, 61, 1-7.

- Warner, J.H., Schäffel, F., Rummeli, M.H., dan Bachmatiuk, A., 2013, Graphene. Fundamentals and emergent applications, Elsevier, Amsterdam.
- Xu, J., Dang, D.K., Tran, V.T., Liu, X., Chung, J.S., Hur, S.H, Choia, W.M., Kim, E.J., Kohl, P.A., 2014, Liquid-Phase Exfoliation of Graphene in Organic Solvents with Addition of Naphthalene. *J. Colloid. Interf. Sci.*, 418, 37-42.
- Yang, Z., Gao, R., Hu, N., Chai, J., Cheng, Y., dan Zhang, L., 2012, The Prospective Two-Dimensional Graphene Nanosheets: Preparation, Functionalization, and applications, *Nano-Micro. Let.*, 4, 1, 1-9.
- Y. Gogotsi, 2006, *Nanomaterials Handbook*, Taylor and Francis Group, Boca Raton, London.
- Yun, Y.S., Kim, D.H., Kim, B., Park, H.H., dan Jin, H-J., 2012, Transparent Conducting Films Based on Graphene Oxide/Silver Nanowire Hybrids with High Flexibility. *Synthetic Metals.*, 162, 15-16, 1364-1368.
- Zhou, M., Jin, L., Liu, L., Mo, Y., Li, L., Mo, Z., Liu, Z., You, S., dan Zhu, H., 2019, Research Progress of the Liquid-Phase Exfoliation and Stable Dispersion Mechanism and Method of Graphene, *Front. Mater.*, 6, 325.
- Zhou, M., Tian, T., Li, X., Sun, X., Zhang, J., Cui, P., Tang, J., dan Qin, L.C., 2014, Production of Graphene by Liquid-Phase Exfoliation of Intercalated Graphite. *Int. J. Electrochem. Sci.* 9, 810–820.