

DAFTAR PUSTAKA

- [1] Ushma Ahuja, Alpa Dashora b, Harpal Tiwari, Dushyant C. Kothari, K. Venugopalan, “*Electronic and Optical Properties of MoS₂–WS₂ Multi-Layers: First Principles Study*”, 2014
- [2] Honglian Song, Xiaofei Yu, Ming Chen, Mei Qiao, Tiejun Wang, Jing Zhang, Yong Liu, Peng Liu, Xuelin Wang, “*Modification of WS₂ Nanosheets With Controllable Layers Via Oxygen Ion Irradiation*”, 2018
- [3] Jha, R., & Guha, P. K. (2017). An effective liquid-phase exfoliation approach to fabricate tungsten disulfide into ultrathin two-dimensional semiconducting nanosheets. *Springer*, 1-13.
- [4] Wonbong Choi, Nitin Choudhary, Gang Hee Han, Juhong Park, Deji Akinwande and Young Hee Lee, “*Recent Development of Two-Dimensional Transition Metal Dichalcogenides And Their Applications*”, 2017
- [5] Inturu Omkaram, Young Ki Hong and Sunkook Kim, “*Transition Metal Dichalcogenide Photodetectors*”, 2018
- [6] Jonathan N. Coleman, Mustafa Lotya, *et al*, “*Two-Dimensional Nanosheets Produced by Liquid Exfoliation of Layered Materials*” 2011
- [7] Kumar, Jatinder; Kuroda, Marcelo A.; Bellus, Matthew Z.; Han, Shu-Jen; Chiu, Hsin-Ying (2015). *Full-range electrical characteristics of WS₂ transistors*. *Applied Physics Letters*, 106(12), 123508–.
- [8] Wang, Q. H., et al. (2012). Electronics and Optoelectronics of two-dimensional Transition Metal Dichalcogenides. *Nature Nanotechnology*, 699-712.
- [9] J. Xu, J. Zhang, W. Zhang, and C.-S. Lee, “Interlayer Nanoarchitectonics of Two-Dimensional Transition-Metal Dichalcogenides Nanosheets for Orange Storage and Conversion Applications,” *Advanced Orange Materials*, vol. 7, orange. 23, p. 1700571, 2017.
- [10] Isopropyl alcohol MSDS. (2016). Material Safety Data Sheet Isopropyl alcohol MSDS. *Sci. Lab.com*, 1–6.

- [11] Z. He et al., “Revealing Defect-State Photoluminescence in Monolayer WS₂ by Cryogenic Laser Processing”, ACS Nano, vol. 10, orang. 6, pp. 5847-5855, 2016.
- [12] Rivaldi, A., Rosi, M., & Handayani, I. (2019). “Menggunakan Metode Eksfoliasi Fasa Cair Modification of Mos₂ Layer Thickness Using Liquid Phase Exfoliation Method”.
- [13] Sayan Roy, Peter Bermel, “*Electronic and Optical Properties of Ultra-Thin 2D Tungsten Disulfide for Photovoltaic Applications*”, 2017
- [14] Mao, X., Xu, Y., Xue, Q., Wang, W., & Gao, D. (2013). “Ferromagnetism in exfoliated tungsten disulfide nanosheets”. *Nanoscale research letters*, 8(1), 430.
- [15] Utama, A. M., Handayani, I. P., & Rosi, M. “Efek Variasi Substrat Terhadap Sifat Listrik Tungsten Disulfida”, 2019.
- [16] P. A. Chate, D. J. Sathe, P. P. Hankare. “Electrical, optical and morphological properties of chemically deposited nanostructured tungsten disulfide thin films”. *Springer*, 19-23, 2012.
- [17] G.-H. Jung, S. Yoo, and Q.-H. Park, “Measuring the optical permittivity of two-dimensional materials without a priori knowledge of electronic transitions,” *Nanophotonics*, vol. 8, orang. 2, pp. 263–270, 2018.
- [18] Mao, Dong, et al. "WS 2 mode-locked ultrafast fiber laser." *Scientific reports* 5 (2015): 7965.
- [19] Wikipedia, “Atomic force microscope” https://en.wikipedia.org/wiki/Atomic_force_microscopy. [Diakses 15 April 2020, 21:00 Wib].
- [20] Chhowalla, M., Shin, et al (2013). The chemistry of two-dimensional layered transition metal dichalcogenide nanosheets. *Nature chemistry*, 5(4), 263-275.
- [21] Smith, E., & Dent, G. (2005). “Modern Raman spectroscopy: a practical approach”.
- [22] Shen, J., He, Y., Wu, J., Gao, C., Keyshar, K., Zhang, X., ... & Ajayan, P. M. (2015). “Liquid phase exfoliation of two-dimensional materials by

- directly probing and matching surface tension components”. *Nano letters*, 15(8), 5449-5454.
- [23] Callister, W. D., & Rethwisch, D. G. (2011). “*Materials science and engineering*” (Vol. 5, pp. 344-348). NY: John wiley & sons.
 - [24] Perea-López, N., Elías, A.L. & Berkdemir, A., *et al*, 2013. “Photosensor device based on few-layered WS₂ films. *Advanced Functional Materials*”, 23(44), pp.5511-5517.
 - [25] Handayani, I.P., Utama, A.M., & Rosi, M., *et al*. “Modification of WS₂ layered material for flexible electronics” in preparation.
 - [26] Abdullah, M., & Khairurrijal, 2009. “Review: Karakterisasi Nanomaterial”, Jurnal Nanosains & Nanoteknologi, vol 2.
 - [27] Zhao, W., Ghorannevis, Z., Chu, L., Toh, M., Kloc, C., Tan, P. H., & Eda, G. (2013). “Evolution of electronic structure in atomically thin sheets of WS₂ and WSe₂”. *ACS nano*, 7(1), 791-797.
 - [28] Adilbekova, B., Lin, Y., Yengel, E., Faber, H., Harrison, G., Firdaus, Y., ... & Anthopoulos, T. D. (2020). “Liquid phase exfoliation of MoS₂ and WS₂ in aqueous ammonia and their application in highly efficient organic solar cells”. *Journal of Materials Chemistry C*, 8(15), 5259-5264.
 - [29] Choudhary, N., Park, J., Hwang, J. Y., Chung, H. S., Dumas, K. H., Khondaker, S. I., ... & Jung, Y. (2016). “Centimeter scale patterned growth of vertically stacked few layer only 2D MoS₂/WS₂ van der Waals heterostructure”. *Scientific reports*, 6, 25456.
 - [30] Qiao, S., Yang, H., Bai, Z., Peng, G., & Zhang, X. (2017, September). “Identifying the number of WS₂ layers via Raman and photoluminescence spectrum”. In *2017 5th International Conference on Mechatronics, Materials, Chemistry and Computer Engineering (ICMMCCE 2017)*. Atlantis Press.
 - [31] Di Bartolomeo, A., Genovese, L., Giubileo, F., Iemmo, L., Luongo, G., Foller, T., & Schleberger, M. (2017). “Hysteresis in the transfer characteristics of MoS₂ transistors”. *2D Materials*, 5(1), 015014.
 - [32] S.Salehi and A. Saffarzadeh, “Atomic defect state in monolayers of MoS₂ and WS₂”, *surface science*, vol. 651. pp. 215-221, 2016.

- [33] Sharma, S., Bhagat, S., Singh, J., Ahmad, M., & Sharma, S. (2018). “Temperature dependent photoluminescence from WS₂ nanostructures”. *Journal of Materials Science: Materials in Electronics*, 29(23), 20064-20070.
- [34] Mishra, A. K., Lakshmi, K. V., & Huang, L. (2015). “Eco-friendly synthesis of metal dichalcogenides nanosheets and their environmental remediation potential driven by visible light”. *Scientific reports*, 5, 15718.
- [35] Rodriguez Gutierrez, H., Perea-López, N., Elías, A., Berkdemir, A., Wang, B., Lv, R., ... & D Layered Materials MURI 24 Collaboration. (2013). “Extraordinary room-temperature photoluminescence in WS₂ monolayers”. *APS, 2013*, A5-007.
- [36] Wurdack, M., et al. (2020). “Ultrathin Ga₂O₃ Glass: A Large-Scale Passivation and Protection Material for Monolayer WS₂”. *Advanced Materials*, 2005732.
- [37] Faraduan, I., Fathona, I. W., & Handayani, I. P. (2020). “Karakterisasi Sifat Listrik Heterostruktur WS₂/MoS₂”. *eProceedings of Engineering*, 7(2).