REFERENCES

Abrahamse, H. and Hamblin, M.R., 2016, New photosensitizers for photodynamic therapy, *Biochem J*, 473, 347–364.

Alasvand, N., Urbanska, A.M., Rahmati, M., Saeidifar, M., Gungor-Ozkerim, P.S., Sefat, F., Rajadas, J., and Mozafari, M., 2017, *Therapeutic Nanoparticles for Targeted Delivery of Anticancer Drugs*, In Grumezescu, A.M., *Multifunctional Systems for Combined Delivery, Biosensing and Diagnostics*, 1st Ed., Elsevier, Amsterdam.

Alexeree, S., ElZorkany, H.E.S., Abdel-Salam, Z., and Harith, M.A., 2021, A novel synthesis of a chlorophyll b-gold nanoconjugate used for enhancing photodynamic therapy: In vitro study, *Photodiagnosis Photodyn Ther*, 35, 102444.

Bansal, S., Singh, J., Kumari, U., Kaur, I.P., Barnwal, R.P., Kumar, R., Singh, S., Singh, G., and Chatterjee, M., 2019, Development of biosurfactant-based graphene quantum dot conjugate as a novel and fluorescent theranostic tool for cancer, *Int J Nanomedicine*, 14, 809–818.

Bax, H.J., Chauhan, J., Stavraka, C., Santaolalla, A., Osborn, G., Khiabany, A., Grandits, M., López-Abente, J., Palhares, L.C.G.F., Chan Wah Hak, C., Robinson, A., Pope, A., Woodman, N., Naceur-Lombardelli, C., Malas, S., Coumbe, J.E.M., Nakamura, M., Laddach, R., Mele, S., et al., 2022, Folate receptor alpha in ovarian cancer tissue and patient serum is associated with disease burden and treatment outcomes, *Br J Cancer 2022 128:2*, 128, 342–353.

Bellotti, E., Cascone, M.G., Barbani, N., Rossin, D., Rastaldo, R., Giachino, C., and Cristallini, C., 2021, Targeting Cancer Cells Overexpressing Folate Receptors with New Terpolymer-Based Nanocapsules: Toward a Novel Targeted DNA Delivery System for Cancer Therapy, *Biomedicines*, 9.

Cai, J.Q., Liu, X.M., Gao, Z.J., Li, L.L., and Wang, H., 2021, Chlorophylls derivatives: Photophysical properties, assemblies, nanostructures and biomedical applications, *Mater Today*, 45, 77–92.

Chahal, S., Macairan, J.R., Yousefi, N., Tufenkji, N., and Naccache, R., 2021, Green synthesis of carbon dots and their applications, *RSC Adv*, 11, 25354–25363.

Chaudhary, N., Gupta, P.K., Eremin, S., and Solanki, P.R., 2020, One-step green approach to synthesize highly fluorescent carbon quantum dots from banana juice for selective detection of copper ions, *J Environ Chem Eng*, 8, 103720.

Correia, J.H., Rodrigues, J.A., Pimenta, S., Dong, T., and Yang, Z., 2021, Photodynamic Therapy Review: Principles, Photosensitizers, Applications, and Future Directions, *Pharmaceutics*, 13.

De, B. and Karak, N., 2013, A green and facile approach for the synthesis of water soluble fluorescent carbon dots from banana juice, *RSC Adv*, 3, 8286–8290.

Deng, Z., Liu, C., Jin, Y., Pu, J., Wang, B., and Chen, J., 2019, High quantum yield blue- and orange-emitting carbon dots: one-step microwave synthesis and applications as fluorescent films and in fingerprint and cellular imaging, *Analyst*, 144, 4569–4574.

Despitasari, L. and Nofrianti, D., 2017, Hubungan Dukungan Keluarga dan Pemeriksaan Payudara Sendiri (SADARI) dengan Keterlambatan Pemeriksaan Kanker Payudara Pada Penderita Kanker Payudara di Poli Bedah RSUP DR. M. Djamil Padang, *Jurnal Keperawatan Muhammadiyah*, 2, 167–175.

Dikio, E.D. and Isabirye, D.A., 2008, Isolation of chlorophyll a from spinach leaves, *Bull Chem Soc Ethiop*, 22, 301–304.

Du, F.P., Cao, N.N., Zhang, Y.F., Fu, P., Wu, Y.G., Lin, Z.D., Shi, R., Amini, A., and Cheng, C., 2018, PEDOT:PSS/graphene quantum dots films with enhanced thermoelectric properties via strong interfacial interaction and phase separation, *Sci Rep*, 8, 1–12.

El-Shafey, A.M., 2021, Carbon dots: Discovery, structure, fluorescent properties, and applications, *Green Process Synth*, 10, 134–156.

Ercin, U., Aribas, Y.K., Tefon Aribas, A.B., Bilgihan, A., and Bilgihan, K., 2021, Singlet oxygen formation during accelerated and hyperaccelerated corneal cross-linking: in vitro study, *Eye (Lond)*, 35, 3147–3151.

Escudero, A., Carrillo-Carrión, C., Castillejos, M.C., Romero-Ben, E., Rosales-Barrios, C., and Khiar, N., 2021, Photodynamic therapy: photosensitizers and nanostructures, *Mater Chem Front*, 5, 3788–3812.

Fahmi, M.Z., Sholihah, N.F., Wibrianto, A., Sakti, S.C.W., Firdaus, F., and Chang, J. yaw, 2021, Simple and fast design of folic acid-based carbon dots as theranostic agent and its drug release aspect, *Mater Chem Phys*, 267, 124596.

Fatimah, S., Isnaeni, Abdullah, B., and Tahir, D., 2019, Strong luminescence carbon nanodots by green synthesis based microwave assisted from fruit peel, *J Phys Conf Ser*, 1242, 012038.

Ferlay, J., Ervik, M., Lam, F., Colombet, M., Mery, L., Piñeros, M., Znaor, A., Soerjomataram, I., and Bray, F., 2020, Global Cancer Observatory, *Cancer Today*.

Ferreira, A.M., Leite, A.C., Coutinho, J.A.P., and Freire, M.G., 2021, Chlorophylls Extraction from Spinach Leaves Using Aqueous Solutions of Surface-Active Ionic Liquids, *Sustain Chem*, 2, 764–777.

Gallardo-Villagrán, M., Leger, D.Y., Liagre, B., and Therrien, B., 2019, Photosensitizers Used in the Photodynamic Therapy of Rheumatoid Arthritis, *Int J Mol Sci*, 20.

Gan, J., Chen, L., Chen, Z., Zhang, J., Yu, W., Huang, C., Wu, Y., and Zhang, K., 2023, Lignocellulosic Biomass-Based Carbon Dots: Synthesis Processes, Properties, and Applications, *Small*, 19.

Ge, Z. and Liu, W., 2021, Image Processing and Luminescent Probes for Bioimaging Techniques with High Spatial Resolution and High Sensitivity, *J Phys Conf Ser*, 2083, 022016.

Ghorbani, J., Rahban, D., Aghamiri, S., Teymouri, A., and Bahador, A., 2018, Photosensitizers in antibacterial photodynamic therapy: an overview, *Laser Ther*, 27, 293.

González-González, R.B., González, L.T., Madou, M., Leyva-Porras, C., Martinez-Chapa, S.O., and Mendoza, A., 2022, Synthesis, Purification, and

Characterization of Carbon Dots from Non-Activated and Activated Pyrolytic Carbon Black, *Nanomater*, 12, 298.

Hegde, M.V., Mali, A.V., and Chandorkar, S.S., 2013, What is a cancer cell? Why does it metastasize?, *Asian Pac J Cancer Prev*, 14, 3987–3989.

Heredia-Guerrero, J.A., San-Miguel, M.A., Luna, M., Domínguez, E., Heredia, A., and Benítez, J.J., 2011, Structure and support induced structure disruption of soft nanoparticles obtained from hydroxylated fatty acids, *Soft Matter*, 7, 4357–4363.

Jing, H.H., Bardakci, F., Akgöl, S., Kusat, K., Adnan, M., Alam, M.J., Gupta, R., Sahreen, S., Chen, Y., Gopinath, S.C.B., and Sasidharan, S., 2023, Green Carbon Dots: Synthesis, Characterization, Properties and Biomedical Applications, *J Funct Biomater*, 14.

Kang, C., Huang, Y., Yang, H., Yan, X.F., and Chen, Z.P., 2020, A Review of Carbon Dots Produced from Biomass Wastes, *Nanomater*, 10, 2316.

Kumawat, M.K., Srivastava, R., Thakur, M., and Gurung, R.B., 2017, Graphene quantum dots from mangifera indica: Application in near-infrared bioimaging and intracellular nanothermometry, *ACS Sustain Chem Eng*, 5, 1382–1391.

Kurdekar, A., Chunduri, L.A.A., Bulagonda, E.P., Haleyurgirisetty, M.K., Kamisetti, V., and Hewlett, I.K., 2016, Comparative performance evaluation of carbon dot-based paper immunoassay on Whatman filter paper and nitrocellulose paper in the detection of HIV infection, *Microfluid Nanofluidics*, 20, 1–13.

Kwiatkowski, S., Knap, B., Przystupski, D., Saczko, J., Kędzierska, E., Knap-Czop, K., Kotlińska, J., Michel, O., Kotowski, K., and Kulbacka, J., 2018, Photodynamic therapy - mechanisms, photosensitizers and combinations, *Biomed Pharmacother*, 106, 1098–1107.

Lagos, K.J., Buzzá, H.H., Bagnato, V.S., and Romero, M.P., 2021, Carbon-Based Materials in Photodynamic and Photothermal Therapies Applied to Tumor Destruction, *Int J Mol Sci*, 23, 22.

Lai, C., Lin, S., Huang, X., and Jin, Y., 2021, Synthesis and properties of carbon quantum dots and their research progress in cancer treatment, *Dyes Pigm*, 196, 109766.

Lee, S., Park, C.S., and Yoon, H., 2022, Nanoparticulate Photoluminescent Probes for Bioimaging: Small Molecules and Polymers, *Int J Mol Sci*, 23, 4949.

Li, H., Cheng, Y., Li, J., Li, T., Zhu, Jia, Deng, W., Zhu, Jiajia, and He, D., 2022, Preparation and Adsorption Performance Study of Graphene Quantum Dots@ZIF-8 Composites for Highly Efficient Removal of Volatile Organic Compounds, *Nanomater*, 12, 4008.

Liu, W., Jiang, C., Zhang, L., Li, X., Hou, Q., and Ni, Y., 2022, Valorization of cellulose pulp derived carbon quantum dots by controllable fractionation, *Ind Crops Prod*, 188, 115560.

Lu, S., Guo, S., Xu, P., Li, X., Zhao, Y., Gu, W., and Xue, M., 2016, Hydrothermal synthesis of nitrogen-doped carbon dots with real-time live-cell imaging and blood-brain barrier penetration capabilities, *Int J Nanomedicine*, 11, 6325–6336.

Maiti, S., Kundu, S., Roy, C.N., Das, T.K., and Saha, A., 2017, Synthesis of excitation independent highly luminescent graphene quantum dots through perchloric acid oxidation, *Langmuir*, 33, 14634–14642.

Mansuriya, B.D. and Altintas, Z., 2021, Carbon Dots: Classification, Properties, Synthesis, Characterization, and Applications in Health Care—An Updated Review (2018–2021), *Nanomater*, 11.

Meng, W., Bai, X., Wang, B., Liu, Z., Lu, S., and Yang, B., 2019, Biomass-Derived Carbon Dots and Their Applications, *Energy Environ Matter*, 2, 172–192.

Milenković, S., Zvezdanović, J., Anđelković, T., and Marković, D., 2012, THE IDENTIFICATION OF CHLOROPHYLL AND ITS DERIVATIVES IN THE PIGMENT MIXTURES: HPLC-CHROMATOGRAPHY, VISIBLE AND MASS SPECTROSCOPY STUDIES, *Advanced technologies*, 1, 16–24.

Mintz, K.J., Bartoli, M., Rovere, M., Zhou, Y., Hettiarachchi, S.D., Paudyal, S., Chen, J., Domena, J.B., Liyanage, P.Y., Sampson, R., Khadka, D., Pandey, R.R., Huang, S., Chusuei, C.C., Tagliaferro, A., and Leblanc, R.M., 2021, A deep investigation into the structure of carbon dots, *Carbon*, 173, 433–447.

Nakamura, Y., Mochida, A., Choyke, P.L., and Kobayashi, H., 2016, Nanodrug Delivery: Is the Enhanced Permeability and Retention Effect Sufficient for Curing Cancer?, *Bioconjug Chem*, 27, 2225–2238.

Nie, H., Li, M., Li, Q., Liang, S., Tan, Y., Sheng, L., Shi, W., and Zhang, S.X.A., 2014, Carbon dots with continuously tunable full-color emission and their application in ratiometric pH sensing, *Chem Mater*, 26, 3104–3112.

Nocito, G., Calabrese, G., Forte, S., Petralia, S., Puglisi, C., Campolo, M., Esposito, E., and Conoci, S., 2021, Carbon Dots as Promising Tools for Cancer Diagnosis and Therapy, *Cancers (Basel)*, 13.

Oktavia, L., Mulyani, I., and Suendo, V., 2021, Investigation of Chlorophyl-a Derived Compounds as Photosensitizer for Photodynamic Inactivation, *Bull Chem React Eng*, 16, 161–169.

Passos Zattar, A.P., Paulo de Mesquita, J., and Pereira, F.V., 2022, Luminescent carbon dots obtained from cellulose and their applications as sensors for metal ions, *Mater Chem Phys*, 290, 126633.

Patra, J.K., Das, G., Fraceto, L.F., Campos, E.V.R., Rodriguez-Torres, M.D.P., Acosta-Torres, L.S., Diaz-Torres, L.A., Grillo, R., Swamy, M.K., Sharma, S., Habtemariam, S., and Shin, H.S., 2018, Nano based drug delivery systems: recent developments and future prospects, *J Nanobiotechnol*, 16, 1–33.

Petrović, S.M., Tugulea, L., Marković, D.Z., and Barbanta-Patrascu, M., 2014, Chlorophyll a and chlorophyllide a inside liposomes made of saturated and unsaturated lipids: A possible impact of the lipids microenvironment, *Acta Period Technol*, 45, 215–227.

Prasannan, A. and Imae, T., 2013, One-pot synthesis of fluorescent carbon dots from orange waste peels, *Ind Eng Chem Res*, 52, 15673–15678.

Quina, F.H. and Silva, G.T.M., 2021, The photophysics of photosensitization: A brief overview, *J Photochem Photobiol*, 7, 100042.

Ren, J., Weber, F., Weigert, F., Wang, Y., Choudhury, S., Xiao, J., Lauermann, I., Resch-Genger, U., Bande, A., and Petit, T., 2019, Influence of surface chemistry on optical, chemical and electronic properties of blue luminescent carbon dots, *Nanoscale*, 11, 2056–2064.

Sangam, S., Gupta, A., Shakeel, A., Bhattacharya, R., Sharma, A.K., Suhag, D., Chakrabarti, S., Garg, S.K., Chattopadhyay, S., Basu, B., Kumar, V., Rajput, S.K., Dutta, M.K., and Mukherjee, M., 2018, Sustainable synthesis of single crystalline sulphur-doped graphene quantum dots for bioimaging and beyond, *Green Chem*, 20, 4245–4259.

Sankaran, R., Markandan, K., Khoo, K.S., Cheng, C.K., Ashokkumar, V., Deepanraj, B., and Show, P.L., 2021, The Expansion of Lignocellulose Biomass Conversion Into Bioenergy via Nanobiotechnology, *Front Nanotechnol*, 3, 793528.

Sari, F.D., Chotimah, Roto, and Kartini, I., 2023, Highly fluorescent nitrogen-doped graphene quantum dots (N-GQDs) synthesized from Pennisetum purpureum for selective and sensitive detection of Fe3+ ions, *Mater Res Express*, 10, 075603.

Sekar, R., Basavegowda, N., Jena, S., Jayakodi, S., Elumalai, P., Chaitanyakumar, A., Somu, P., and Baek, K.H., 2022, Recent Developments in Heteroatom/Metal-Doped Carbon Dot-Based Image-Guided Photodynamic Therapy for Cancer, *Pharmaceutics*, 14.

Simões, J.C.S., Sarpaki, S., Papadimitroulas, P., Therrien, B., and Loudos, G., 2020, Conjugated Photosensitizers for Imaging and PDT in Cancer Research, *J Med Chem*, 63, 14119–14150.

Song, X., Zhao, S., Xu, Y., Chen, X., Wang, S., Zhao, P., Pu, Y., and Ragauskas, A.J., 2022, Preparation, Properties, and Application of Lignocellulosic-Based Fluorescent Carbon Dots, *ChemSusChem*, 15, e202102486.

Song, Y., Zhu, S., and Yang, B., 2014, Bioimaging based on fluorescent carbon dots, *RSC Adv*, 4, 27184–27200.

Sun, F., Ghosh, H., Tan, Z., and Sivoththaman, S., 2023, Top-down synthesis and enhancing device adaptability of graphene quantum dots, *Nanotechnol*, 34, 185601.

Suvorov, N., Pogorilyy, V., Diachkova, E., Vasil'ev, Y., Mironov, A., and Grin, M., 2021, Derivatives of Natural Chlorophylls as Agents for Antimicrobial Photodynamic Therapy, *Int J Mol Sci*, 22.

Syiam, D.L.N., 2018, Isolasi dan Identifikasi Bakteri Endofit pada Limbah Daun Kayu Putih (Melaleuca cajuputi Powell), *Tesis*, Program Studi Biologi, Bandung.

Sztandera, K., Gorzkiewicz, M., and Klajnert-Maculewicz, B., 2020, Nanocarriers in photodynamic therapy—in vitro and in vivo studies, *Nanomed Nanobiotechnol*, 12, e1509.

Tada, D.B. and Baptista, M.S., 2015, Photosensitizing nanoparticles and the modulation of ROS generation, *Front Chem*, 3.

Tang, L., Ji, R., Li, X., Bai, G., Liu, C.P., Hao, J., Lin, J., Jiang, H., Teng, K.S., Yang, Z., and Lau, S.P., 2014, Deep ultraviolet to near-infrared emission and photoresponse in layered n-doped graphene quantum dots, *ACS Nano*, 8, 6312–6320.

Wang, Y.T., Yang, C.H., Huang, K.S., and Shaw, J.F., 2021, Chlorophyllides: Preparation, Purification, and Application, *Biomolecules*, 11.

Weerawardene, K.L.D.M. and Aikens, C.M., 2016, Theoretical Insights into the Origin of Photoluminescence of Au25(SR)18- Nanoparticles, *J Am Chem Soc*, 138, 11202–11210.

Wolfbeis, O.S., 2015, An overview of nanoparticles commonly used in fluorescent bioimaging, *Chem Soc Rev*, 44, 4743–4768.

Wu, F., Yue, L., Su, H., Wang, K., Yang, L., and Zhu, X., 2018, Carbon Dots @ Platinum Porphyrin Composite as Theranostic Nanoagent for Efficient Photodynamic Cancer Therapy, *Nanoscale Res Lett*, 13, 1–10.

Wu, J., 2021, The Enhanced Permeability and Retention (EPR) Effect: The Significance of the Concept and Methods to Enhance Its Application, *J Pers Med*, 11.

Wu, J., Wang, P., Wang, F., and Fang, Y., 2018, Investigation of the Microstructures of Graphene Quantum Dots (GQDs) by Surface-Enhanced Raman Spectroscopy, *Nanomater*, 8.

Xia, C., Zhu, S., Feng, T., Yang, M., and Yang, B., 2019, Evolution and Synthesis of Carbon Dots: From Carbon Dots to Carbonized Polymer Dots, *Adv Sci*, 6, 1901316.

Xu, X., Ray, R., Gu, Y., Ploehn, H.J., Gearheart, L., Raker, K., and Scrivens, W.A., 2004, Electrophoretic analysis and purification of fluorescent single-walled carbon nanotube fragments, *J Am Chem Soc*, 126, 12736–12737.

Yao, Y., Zhou, Y., Liu, L., Xu, Y., Chen, Q., Wang, Y., Wu, S., Deng, Y., Zhang, J., and Shao, A., 2020, Nanoparticle-Based Drug Delivery in Cancer Therapy and Its Role in Overcoming Drug Resistance, *Front Mol Biosci*, 7.

Ying, S., Guan, Z., Ofoegbu, P.C., Clubb, P., Rico, C., He, F., and Hong, J., 2022, Green synthesis of nanoparticles: Current developments and limitations, *Environ Technol Innov*, 26, 102336.

Young, O., Ngo, N., Lin, L., Stanbery, L., Creeden, J.F., Hamouda, D., and Nemunaitis, J., 2023, Folate Receptor as a Biomarker and Therapeutic Target in Solid Tumors, *Curr Probl Cancer*, 47.

Zhang, H., Chen, Y., Liang, M., Xu, L., Qi, S., Chen, H., and Chen, X., 2014, Solid-phase synthesis of highly fluorescent nitrogen-doped carbon dots for sensitive and selective probing ferric ions in living cells, *Anal Chem*, 86, 9846–9852.

Zhang, J. and Yu, S.H., 2016, Carbon dots: large-scale synthesis, sensing and bioimaging, *Mater Today*, 19, 382–393.

Zhao, X., Zhang, J., Shi, L., Xian, M., Dong, C., and Shuang, S., 2017, Folic acid-conjugated carbon dots as green fluorescent probes based on cellular targeting imaging for recognizing cancer cells, *RSC Adv*, 7, 42159–42167.

Zheng, B., Chen, Y., Li, P., Wang, Z., Cao, B., Qi, F., Liu, J., Qiu, Z., and Zhang, W., 2017, Ultrafast ammonia-driven, microwave-assisted synthesis of nitrogen-doped graphene quantum dots and their optical properties, *Nanophotonics*, 6, 259–267.

Zhi, B., Yao, X.X., Cui, Y., Orr, G., and Haynes, C.L., 2019, Synthesis, applications and potential photoluminescence mechanism of spectrally tunable carbon dots, *Nanoscale*, 11, 20411–20428.