

DAFTAR PUSTAKA

- Abdel-Shafy, H. I., and Mansour, M. S. M. 2016. A Review on Polycyclic Aromatic Hydrocarbons: Source, Environmental Impact, Effect on Human Health and Remediation. *Egyptian Journal of Petroleum*, **25** (1) : 107-123.
- Adeniji, A. O., Okoh, O. O., and Okoh, A. I. 2017. Petroleum Hydrocarbon Profiles of Water and Sediment of Algoa Bay, Eastern Cape, South Africa. *International Journal of Environmental Research and Public Health*, **14** (10) : 2-21.
- Adipah, S. 2018. Introduction of Petroleum Hydrocarbons Contaminants and its Human Effects. *Journal of Environmental Science and Public Health*, **3** (1) : 1-9.
- Ahmad, F. 2012. Kandungan Senyawa Polisiklik Aromatik Hidrokarbon (PAH) di Teluk Jakarta. *Ilmu Kelautan*, **17** (4) : 199-208.
- Ahmed, F., and Fakhruddin, A. N. M. 2018. A Review on Environmental Contamination of Petroleum Hydrocarbons and its Biodegradation. *International Journal of Environmental Sciences & Natural Resources*, **11** (3) : 63-69.
- Aichner, B., Glaser, B., and Zech, W. 2007. Polycyclic Aromatic Hydrocarbons and Polychlorinated Biphenyls in Urban Soils from Kathmandu, Nepal. *Organic Geochemistry*, **38** (4) : 700-715.
- Avramidis, P., Nikolaou, K., and Bekiari, V. 2015. Total Organic Carbon and Total Nitrogen in Sediments and Soils: A Comparison of the Wet Oxidation-Titration Method with the Combustion-Infrared Method. *Agriculture and Agricultural Science Procedia*, **4** (1) : 425-430.
- Balcioglu, E. B., Aksu, A., Balkis, N., and Ozturk, B. 2020. Origin and Distribution of Polycyclic Aromatic Hydrocarbons (PAHs) in Mediterranean Mussels (*Mytilus Galloprovincialis*, Lamarck, 1819) of The Turkish Straits System. *Polycyclic Aromatic Compounds*, **40** (1) : 50-60.
- Bojes, H. K., and Pope, P. G. 2007. Characterization of EPA's 16 Priority Pollutant Polycyclic Aromatic Hydrocarbons (PAHs) in Tank Bottom Solids and Associated Contaminated Soils at Oil Exploration and Production Sites in Texas. *Regulatory Toxicology and Pharmacology*, **47** (3) : 288-295.
- Cai, T., Ding, Y., Zhang, Z., Wang, X., Wang, T., Ren, Y., and Dong, Y. 2019. Effects of Total Organic Carbon Content and Leaching Water Volume on Migration Behavior of Polycyclic Aromatic Hydrocarbons in Soils by Column Leaching Tests. *Environmental Pollution*, **254** : 112981.
- Chauhan, A., Fazlurrahman, Oakeshott, J. G., and Jain, R. K. 2008. Bacterial Metabolism of Polycyclic Aromatic Hydrocarbons: Strategies for

- Bioremediation. *Indian Journal of Microbiology*, **48** (1) : 95–113.
- Chen, J., Di, Z., Shi, J., Shu, Y., Wan, Z., and Song, L. 2020. Marine Oil Spill Pollution Causes and Governance: A Case Study of Sanchi Tanker Collision and Explosion. *Journal of Cleaner Production*, **273** : 122978.
- Cherr, G. N., Fairbairn, E., and Whitehead, A. 2017. Impacts of Petroleum-Derived Pollutants on Fish Development. *Annual Review of Animal Biosciences*, **5** : 185–203.
- Deng, W., Li, X. G., Li, S. Y., Ma, Y. Y., and Zhang, D. H. 2013. Source apportionment of Polycyclic Aromatic Hydrocarbons In Surface Sediment Of Mud Areas In The East China Sea Using Diagnostic Ratios and Factor Analysis. *Marine Pollution Bulletin*, **70** (1) : 266–273.
- Dewi, R., Zainuri, M., Anggoro, S., dan Winanto, T. 2016. Analisis Perubahan Tata Guna Lahan Kawasan Segara Anakan Selama Periode Waktu (1978-2016) Menggunakan Satelit Landsat Multitemporal. *Omni-Akuatika*, **12** (3) : 144–150.
- Dominguez, C., Sarkar, S. K., Bhattacharya, A., Chatterjee, M., Bhattacharya, B. D., Jover, E., Albaigés, J., Bayona, J. M., Alam, M. A., and Satpathy, K. K. 2010. Quantification and Source Identification Of Polycyclic Aromatic Hydrocarbons In Core Sediments from Sundarban Mangrove Wetland, India. *Archives of Environmental Contamination and Toxicology*, **59** (1) : 49–61.
- Dong, T. T. T., and Lee, B. K. 2009. Characteristics, Toxicity, and Source Apportionment of Polycyclic Aromatic Hydrocarbons (PAHs) in Road Dust of Ulsan, Korea. *Chemosphere*, **74** (9) : 1245–1253.
- Dsikowitzky, L., Nordhaus, I., Jennerjahn, T. C., Khrycheva, P., Sivatharshan, Y., Yuwono, E., and Schwarzbauer, J. 2011. Anthropogenic Organic Contaminants In Water, Sediments and Benthic Organisms Of The Mangrove-Fringed Segara Anakan Lagoon, Java, Indonesia. *Marine Pollution Bulletin*, **62** (4) : 851–862.
- Dwi, F., Suryono, C. A., dan Setyati, W. A. Setyati. 2019. Korelasi Total Kandungan Hidrokarbon pada Air dan Sedimen di Perairan Sungai Donan, Segara Anakan Kabupaten Cilacap, Jawa Tengah. *Journal of Marine Research*, **8** (4) : 361–366.
- Edi, E. 2017. Karakterisasi Asal-Usul dan Tingkat Kematangan Biomarka Minyak Mentah Tarakan-Kalimantan Utara. *Jurnal Sains Dan Teknologi*, **9** (2) : 16–26.
- Edward. 2012. Senyawa Polisiklik Aromatik Hidrokarbon (PAH) dalam Air Laut di Teluk Jakarta Polycyclic Aromatic Hydrocarbons Compounds (PAH) in Seawater of Jakarta Bay. *Depik*, **3** (3) : 207–215.
- Edward. 2015. Kandungan dan Sumber Asal Senyawa Polisiklik Aromatik

- Hidrokarbon (PAH) dalam Sedimen di Perairan Pakis Jaya, Kabupaten Karawang. *Jurnal Akuatika Indonesia*, **6** (2) : 95–106.
- Edward. 2017. Pengamatan Awal Konsentrasi Senyawa Polisiklik Aromatik Hidrokarbon (PAH) dalam Sedimen di Perairan Delta Mahakam, Kalimantan Timur. *Jurnal Ilmu dan Teknologi Kelautan Tropis*, **9** (2) : 453–464.
- Edward, E. 2018. Kontaminasi Senyawa Polisiklik Aromatik Hidrokarbon (PAH) dalam Sedimen Di DAS Gending, Probolinggo. *DEPIK Jurnal Ilmu-Ilmu Perairan, Pesisir dan Perikanan*, **7** (2) : 139–150.
- Edward, E. 2018. Pengamatan Kadar Senyawa Polisiklik Aromatik Hidrokarbon (PAH): (Benzo [a] Pyren, Benzo [a] Antrasen, Benzo [b] Fluoranten, Di-Benzo [a,h] Antrasen, dan Benzo [g,h,i] Perylen) dalam Air Laut di Teluk Jakarta. *Jurnal Kelautan: Indonesian Journal of Marine Science and Technology*, **10** (2) : 113.
- Edward, E. 2019. Kandungan Senyawa Polisiklik Aromatik Hidrokarbon dalam Air Laut dan Sedimen di Teluk Lampung. *Depik*, **8** (1) : 52–66.
- Edward, E., Falahuddin, D., Munawir, K., Yogaswara, D., Wulandari, I., dan Pasilette, R. R. 2020. Pengamatan Awal Kadar Senyawa Polisiklik Aromatik Hidrokarbon (PAH) dalam Sedimen di Daerah Aliran Sungai Bayeman, Probolinggo. *Jurnal Pro-Life*, **7** (2) : 109–119.
- Eviati dan Sulaeman. 2009. *Analisis Kimia Tanah, Tanaman, Air, dan Pupuk Edisi 2*. Balai Penelitian Tanah, Bogor. 234 hal.
- Feng, J., Hu, P., Su, X., Li, Q., Sun, J., and Li, Y. F. 2018. Impact of Suspended Sediment on the Behavior of Polycyclic Aromatic Hydrocarbons in the Yellow River: Spatial Distribution, Transport and Fate. *Applied Geochemistry*, **98** : 278–285.
- Gan, S., Lau, E. V., and Ng, H. K. 2009. Remediation of Soils Contaminated with Polycyclic Aromatic Hydrocarbons (PAHs). *Journal of Hazardous Materials*, **172** (2) : 532–549.
- Gu, Y. G., Lin, Q., Lu, T. T., Ke, C. L., Sun, R. X., and Du, F. Y. 2013. Levels, Composition Profiles and Sources of Polycyclic Aromatic Hydrocarbons in Surface Sediments from Nan'ao Island, A Representative Mariculture Base in South China. *Marine Pollution Bulletin*, **75** (1) : 310–316.
- Habibi, N. A., Fathia, S., dan Utami, C. T. 2019. Perubahan Karakteristik Bahan Pangan pada Keripik Buah dengan Metode *Freeze Drying* (Review). *Jurnal Sains Terapan*, **5** (2) : 65–76.
- Hamilton, H., Achyani, R., Prartono, T., dan Riani, E. 2015. Hidrokarbon Aromatik

- Polisiklik dalam Air dan Sedimen Laut serta Akumulasinya pada Ikan Nomei *,Harpadon nehereus* (Hamilton, 1822) Perairan Tarakan. *Jurnal Iktiologi Indonesia*, **15** (3) : 267–282.
- Han, B., Zheng, L., and Lin, F. 2019. Risk Assessment and Source Apportionment of PAHs in Surface Sediments from Caofeidian Long Island, China. *Marine Pollution Bulletin*, **145** : 42–46.
- Han, B., Cui, D., Liu, A., Li, Q., and Zheng, L. 2021. Distribution, Sources, and Risk Assessment of Polycyclic Aromatic Hydrocarbons (PAHs) in Surface Sediments from Daya Bay, South China. *Environmental Science and Pollution Research*, **162** : 1–5.
- Handrianto, P. 2018. Mikroorganisme Pendegradasi TPH (Total Petroleum Hydrocarbon) Sebagai Agen Bioremediasi Tanah Tercemar Minyak Bumi (Review Article). *Jurnal Sains Health*, **2** (2) : 35–42.
- Harisam, T., Sugiyono, Pribadi, R., Sari Siregar, A., Marnani, S., Wisudyanti Budi Hastuti, D., and Arie Prayogo, N. 2018. Acute Effects of Crude Oil for Three Common Mangrove Seedling in Segara Anakan Nature Reserve (SANR) Cilacap, Indonesia. *E3S Web of Conferences*, **47** : 1–9.
- Haritash, A. K., and Kaushik, C. P. 2009. Biodegradation Aspects of Polycyclic Aromatic Hydrocarbons (PAHs): A Review. *Journal of Hazardous Materials*, **169** (1) : 1–15.
- Hasan, N. Y. 2020. Senyawa Toksik Pencemar Udara : *Polycyclic Aromatic Hydrocarbons* (PAHs). *Jurnal Reka Lingkungan*, **8** (2) : 67–77.
- Herawati, V. E., Hartoko, A., and Suminto, S. 2012. The Suitability of Segara Anakan Waters, Cilacap, Central Java as Cultivation Area of Polymesoda Erosa based on Primary Productivity using Satellite Image. *Bonorowo Wetlands*, **2** (2) : 41–51.
- Hidayati, N. V., Siregar, A. S., Sari, L. K., Putra, G. L., Hartono, Nugraha, I. P., dan Syakti, A. D. 2014. Pendugaan Tingkat Kontaminasi Logam Berat Pb , Cd dan Cr pada Air dan Sedimen di Perairan Segara Anakan Cilacap. *Omni-Akuatika*, **8** (19) : 60–70.
- Hong, W. J., Jia, H., Li, Y. F., Sun, Y., Liu, X., and Wang, L. 2016. Polycyclic Aromatic Hydrocarbons (PAHs) and Alkylated PAHs in the Coastal Seawater, Surface Sediment and Oyster from Dalian, Northeast China. *Ecotoxicology and Environmental Safety*, **128** : 11–20.
- Hu, N., Shi, X., Liu, J., Huang, P., Liu, Y., and Liu, Y. 2010. Concentrations and Possible Sources of PAHs in Sediments from Bohai Bay and Adjacent Shelf. *Environmental Earth Sciences*, **60** (8) : 1771–1782.

- Ikenaka, Y., Sakamoto, M., and Nagata, T. 2013. Effects of Polycyclic Aromatic Hydrocarbons (PAHs) on An Aquatic Ecosystem: Acute Toxicity and Community-Level Toxic Impact Tests of Benzo Pyrene Using Lake. *The Journal of Toxicological Sciences*, **38** (1) : 131–136.
- Ji, G., Zou, L., Guan, W., Yang, T., Qiu, H., and Zhu, L. 2021. Partition, Transportation and Ecological Risks of Polycyclic Aromatic Hydrocarbons (PAHs) under Heavy Anthropogenic Estuary : A Case Study in the Xiaoqing River Estuary , North China. *Regional Studies in Marine Science*, **43** : 101664.
- Jiang, Y. F., Wang, X. T., Wang, F., Jia, Y., Wu, M. H., Sheng, G. Y., and Fu, J. M. 2009. Levels, Composition Profiles and Sources of Polycyclic Aromatic Hydrocarbons in Urban Soil of Shanghai, China. *Chemosphere*, **75** (8) : 1112 – 1118.
- Kannan, K., Johnson-Restrepo, B., Yohn, S. S., Giesy, J. P., and Long, D. T. 2005. Spatial and Temporal Distribution of Polycyclic Aromatic Hydrocarbons in Sediments from Michigan Inland Lakes. *Environmental Science and Technology*, **39** (13) : 4700–4706.
- Kanzari, F., Syakti, A. D., Asia, L., Malleret, L., Piram, A., Mille, G., and Doumenq, P. 2014. Distributions and Sources of Persistent Organic Pollutants (Aliphatic Hydrocarbons, PAHs, PCBs and Pesticides) in Surface Sediments of an Industrialized Urban River (Huveaune), France. *Science of the Total Environment*, **478** : 141–151.
- Krott, M., Dharmawan, B., and Michael, B. 2017. Failure of Science-Based Win-Win Solution in Fishery Management : Learnings from Segara Anakan waters, Central Java, Indonesia. *Ocean & Coastal Management Journal*, **141** : 82–89.
- Kurniawan, A., Wirasembada, Y. C., Ningtyas Razaad, I. M., Novriansyah, A., Rafi, M., dan Effendi, A. J. 2018. Hidrokarbon Aromatik Polisiklik pada Lahan Tercemar Limbah Minyak Bumi: Tinjauan Pertumbuhan Mikro-Organisme, Proses Metabolisme dan Biodegradasi. *Jurnal Ilmu Lingkungan*, **16** (1) : 9–24.
- Lawal, A. T. 2017. Polycyclic Aromatic Hydrocarbons. A Review. *Cogent Environmental Science*, **3** (1) : 1–89.
- Li, F., Zeng, X., Yang, J., Zhou, K., Zan, Q., Lei, A., and Tam, N. F. Y. 2014. Contamination of Polycyclic Aromatic Hydrocarbons (PAHs) in Surface Sediments and Plants of Mangrove Swamps In Shenzhen, China. *Marine Pollution Bulletin*, **85** (2) : 590–596.
- Li, H., Chen, J., Wu, W., and Piao, X. 2010. Distribution of Polycyclic Aromatic Hydrocarbons in Different Size Fractions of Soil from a Coke Oven Plant and

- its Relationship to Organic Carbon Content. *Journal of Hazardous Materials*, **176** (1) : 729–734.
- Lin, T., Hu, L., Guo, Z., Zhang, G., and Yang, Z. 2013. Deposition Fluxes and Fate of Polycyclic Aromatic Hydrocarbons in the Yangtze River Estuarine-Inner Shelf in the East China Sea. *Global Biogeochemical Cycles*, **27** (1) : 77–87.
- Liu, F., Liu, J., Chen, Q., Wang, B., and Cao, Z. 2012. Pollution Characteristics, Ecological Risk and Sources of Polycyclic Aromatic Hydrocarbons (PAHs) in Surface Sediment from Tuhai-Majia River System, China. *Procedia Environmental Sciences*, **13** : 1301–1314.
- Liu, L. Y., Wang, J. Z., Wei, G. L., Guan, Y. F., and Zeng, E. Y. 2012. Polycyclic Aromatic Hydrocarbons (PAHs) in Continental Shelf Sediment of China: Implications for Anthropogenic Influences on Coastal Marine Environment. *Environmental Pollution*, **167** : 155–162.
- Liu, X., Chen, Z., Xia, C., Wu, J., and Ding, Y. 2020. Characteristics, Distribution, Source and Ecological Risk of Polycyclic Aromatic Hydrocarbons (PAHs) in Sediments along the Yangtze River Estuary Deepwater Channel. *Marine Pollution Bulletin*, **150** (1) : 110765.
- Long, E. R., Macdonald, D. D., Smith, S. L., and Calder, F. D. 1995. Incidence of Adverse Biological Effects within Ranges of Chemical Concentrations in Marine and Estuarine Sediments. *Environmental Management*, **19** (1) : 81–97.
- Lukitaningsih, E., dan Noegrohati, S. 1998. Bioakumulasi PAH di Perairan Cilacap. *Majalah Farmasi Indonesia*, **9** (4) : 186–194.
- Maletic, S. P., Beljin, J. M., Roncevic, S. D., Grgic, M. G., and Dalmacija, B. D. 2019. State of the Art and Future Challenges for Polycyclic Aromatic Hydrocarbons in Sediments: Sources, Fate, Bioavailability and Remediation Techniques. *Journal of Hazardous Materials*, **365** : 467–482.
- Manurung, J. G., Suryoputro, A. A. D., dan Hariadi. 2017. Analisis Pengaruh Pasang Surut terhadap Sebaran Muatan Padatan Tersuspensi di Sekitar Perairan Muara Sungai Wulan, Kabupaten Demak, Jawa Tengah. *Jurnal Oseanografi*, **6** (1) : 68–78.
- Mas'ud, A. 2018. Analisis Kemampuan Biodegradasi Hidrokarbon Petroleum oleh Isolat Bakteri Laut dari Kolom Air Pelabuhan Paotere Makassar secara In Vitro. *Jurnal Ilmu Alam dan Lingkungan*, **9** (17) : 22–31.
- Meng Chuan, O., Mei, F. F., and Chuen, Y. J. 2016. Determination of Total Organic Carbon Concentration in Surficial Sediments of Sungai Pinang, Penang, Malaysia. *Malaysian Journal of Analytical Science*, **20** (6) : 1318–1328.

- Mille, G., Asia, L., Guiliano, M., Malleret, L., and Doumenq, P. 2007. Hydrocarbons in Coastal Sediments from The Mediterranean Sea (Gulf of Fos Area, France). *Marine Pollution Bulletin*, **54** (5) : 566–575.
- Munawir, K., and Yogaswara, D. 2018. Concentrations of PAHs (Polycyclic Aromatic Hydrocarbons) Pollutant in Sediment of The Banten Bay. *Bulletin of the Marine Geology*, **32** (2) : 61–66.
- Mustaruddin., Simbolon, D., dan Khotib, M. 2016. Pola Dinamis Penurunan Hasil Tangkapan Udang Akibat Pengendapan dan Limbah Industri di Kawasan Segara Anakan (Dynamic Pattern of Degradation of Shrimps Catch as an Effect of Sedimentation and Industrial Waste in Segara Anakan). *Marine Fisheries : Journal of Marine Fisheries Technology and Management*, **7** (2) : 125.
- Nascimento, R. A., de Almeida, M., Escobar, N. C. F., Ferreira, S. L. C., Mortatti, J., and Queiroz, A. F. S. 2017. Sources and Distribution of Polycyclic Aromatic Hydrocarbons (PAHs) and Organic Matter in Surface Sediments of an Estuary under Petroleum Activity Influence, Todos os Santos Bay, Brazil. *Marine Pollution Bulletin*, **119** (2) : 223–230.
- Nasher, E., Heng, L. Y., Zakaria, Z., and Surif, S. 2013. Concentrations and Sources of Polycyclic Aromatic Hydrocarbons in the Seawater around Langkawi Island, Malaysia. *Journal of Chemistry*, **81** : 1–14.
- Nordhaus, I., Toben, M., and Fauziah, A. 2019. Estuarine , Coastal and Shelf Science Impact of Deforestation on Mangrove Tree Diversity , Biomass and Community Dynamics in The Segara Anakan Lagoon , Java , Indonesia : A ten-Year Perspective. *Estuarine, Coastal and Shelf Science*, **227** : 106300.
- Nugroho, A., Effendi, E., dan Annisa, F. 2007. Pertumbuhan Konsorsium Isolat Bakteri Asal Benakat pada Media Minyak Bumi Bersalinitas Tinggi : Studi Kasus Biodegradasi Minyak Bumi Skala Laboratorium (Growth of Bacteria Isolat Consortium From Benakat on High Salinity Crude Oil Media). *Jurnal Ilmu Dasar*, **8** (2) : 186–192.
- Ossai, I. C., Ahmed, A., Hassan, A., and Hamid, F. S. 2020. Remediation of Soil and Water Contaminated with Petroleum Hydrocarbon: A Review. *Environmental Technology and Innovation*, **17** : 1–80.
- Piranti, A., Rahayu, D., Ardli, E., Setyaningrum, N., Widyartini, D., and Insan, I. 2020. Water Quality Status of Segara Anakan Cilacap Indonesia for Biota Life. *IOP Conference Series: Earth and Environmental Science*, **593** : 1–11.
- Prakasita, F., Ganjar, I., dan Ria, W. 2018. Review Analisis Teknologi Degradasi Limbah Minyak Bumi untuk Mengurangi Pencemaran Air Laut di Indonesia. *Reka Buana : Jurnal Ilmiah Teknik Sipil dan Teknik Kimia*, **3** (2) : 80.

- Purwatiningsih, A., dan Masykur. 2012. Eksplorasi dan Eksploitasi Pertambangan Minyak dan Gas Bumi di Laut Natuna Bagian Utara Laut Yuridiksi Nasional untuk Meningkatkan Kesejahteraan Masyarakat di Kepulauan Natuna. *Jurnal Reformasi*, **2** (2) : 59-67.
- Qin, X., Sun, H., Wang, C., Yu, Y., and Sun, T. 2010. Impacts of Crab Bioturbation on the Fate of Polycyclic Aromatic Hydrocarbons in Sediment from the Beitang Estuary of Tianjin, China. *Environmental Toxicology and Chemistry*, **29** (6) : 1248-1255.
- Rachmawani, D., Yulianda, F., Kusmana, C., Boer, M., dan Parwati, E. 2017. Dampak Hidrokarbon Aromatik terhadap Ekosistem Mangrove di Kawasan Binalatung Kota Tarakan Kalimantan Utara (Impact of Aromatic Hydrocarbon on Mangrove Ecosystem in Binalatung Area Tarakan City North Kalimantan). *Jurnal Manusia dan Lingkungan*, **23** (3) : 295-303.
- Ratnaningsih, D., Wahyudi, H., Hamonangan Panjaitan, E., dan Situmorang, J. 2014. Identifikasi Awal Polycyclic Aromatic Hydrocarbons (PAHs) di Serpong-Jakarta. *Jurnal Ecolab*, **8** (1) : 23-31.
- Ravindra, K., Wauters, E., and Van Grieken, R. 2008. Variation in Particulate PAHs Levels and Their Relation with The Transboundary Movement of The Air Masses. *Science of the Total Environment*, **396** (2) : 100-110.
- Reynaud, S., and Deschaux, P. 2006. The effects of Polycyclic Aromatic Hydrocarbons on The Immune System of Fish: A review. *Aquatic Toxicology*, **77** (2) : 229-238.
- Rinawati, Koike, T., Koike, H., Kurumisawa, R., Ito, M., Sakurai, S., Togo, A., Saha, M., Arifin, Z., and Takada, H. 2012. Distribution, Source Identification, and Historical Trends of Organic Micropollutants in Coastal Sediment in Jakarta Bay, Indonesia. *Journal of Hazardous Materials*, **217** : 208-216.
- Rocher, V., Azimi, S., Moilleron, R., and Chebbo, G. 2004. Hydrocarbons and Heavy Metals in The Different Sewer Deposits in The "Le Marais" Catchment (Paris, France): Stocks, Distributions and Origins. *Science of the Total Environment*, **323** (1) : 107-122.
- Sa'diyah, K., and Juliastuti, S. R. 2015. The Effect of Amount of Natural Zeolit Catalyst in Product of Polypropilene (Pp) Plastic Waste Pyrolysis. *Jurnal Bahan Alam Terbarukan*, **4** (2) : 40-45.
- Sanders, M., Sivertsen, S., and Scott, G. 2002. Origin and Distribution of Polycyclic Aromatic Hydrocarbons in Surficial Sediments from The Savannah River. *Archives of Environmental Contamination and Toxicology*, **43** (4) : 438-448.

- Saputra, O., Ihsan, Y. N., Sari, L. P., dan Mulyani, Y. 2017. Sedimentasi dan Sebaran Makrozoobentos di Kawasan Laguna Segara Anakan Nusakambangan, Cilacap. *Perikanan dan Ilmu Kelautan*, **8** (1) : 26–33.
- Sulastri, E., Haryadi, T., dan Inayah, E. 2019. Tingkat Kesadaran Ekologis Masyarakat Kampung Laut, Kabupaten Cilacap, Jawa Tengah. *Jurnal Kawistara*, **9** (1) : 78–90.
- Syakti, A. D. 2016. Molecular Diagnostic Ratios to Assess the Apportionment of Petroleum Hydrocarbons Contaminantion in Marine Sediment. *Molekul*, **11** (2): 208–219.
- Syakti, A. D., Hidayati, N. V., Hilmi, E., Piram, A., and Doumenq, P. 2013. Source Apportionment of Sedimentary Hydrocarbons in the Segara Anakan Nature Reserve, Indonesia. *Marine Pollution Bulletin*, **74** (1) : 141–148.
- Tobiszewski, M., and Namiesnik, J. 2012. PAH Diagnostic Ratios for the Identification of Pollution Emission Sources. *Environmental Pollution*, **162** : 110–119.
- Triyanti, R., Wijaya, R. A., Koeshendrajana, S., dan Priyatna, F. N. 2017. Karakteristik dan Nilai Manfaat Langsung Sumber Daya Pesisir (Studi Kasus di Perairan Segara Anakan, Kabupaten Cilacap). *Jurnal Sosial Ekonomi Kelautan dan Perikanan*, **5** (1) : 31–46.
- Truskewycz, A., Gundry, T. D., Khudur, L. S., Kolobaric, A., Taha, M., Aburto-Medina, A., Ball, A. S., and Shahsavari, E. 2019. Petroleum Hydrocarbon Contamination in Terrestrial Ecosystems—Fate and Microbial Responses. *Molecules*, **24** (18) : 1–20.
- Wahyuni, Y. A. D., Kiswandono, A. A. ., Supriyanto, R., Usman, R. P., Nasy'ah, Y., dan Rinawati. 2017. Identifikasi Hidrokarbon Polisiklik Aromatik (PAH) di Perairan Teluk Lampung. *Journal Analytical and Environmental Chemistry*, **2** (2) : 57–67.
- Wang, Z., Liu, M., and Yang, Y. 2015. Characterization and Sources Analysis of Polycyclic Aromatic Hydrocarbons in Surface Sediments in the Yangtze River Estuary. *Environmental Earth Sciences*, **73** (5) : 2453–2462.
- Wibowo, M. 2018. Pemodelan Sebaran Pencemaran Tumpahan Minyak di Perairan Cilacap. *Jurnal Teknologi Lingkungan*, **19** (2) : 191–202.
- Widhayanti, A., Ismanto, A., dan Yulianto, B. 2015. Sebaran Tumpahan Minyak dengan Pendekatan Model Hidrodinamika dan Spill Analysis di Perairan Cilacap, Jawa Tengah. *Journal of Oceanography*, **4** (4) : 641–650.

- Wijayaratih, Y. 2001. Perombakan Senyawa Hidrokarbon Aromatis Polisiklik (Naftalena) Pada Kadar Tinggi Oleh *Pseudomonas* NY-I. *Manusia Dan Lingkungan*, **8** (3) : 130-141.
- Xiang, N., Jiang, C., Yang, T., Li, P., Wang, H., Xie, Y., Li, S., Zhou, H., and Diao, X. 2018. Occurrence and Distribution of Polycyclic Aromatic Hydrocarbons (PAHs) in Seawater, Sediments and Corals from Hainan Island, China. *Ecotoxicology and Environmental Safety*, **152** : 8-15.
- Xu, S., Song, J., Yuan, H., Li, X., Li, N., Duan, L., and Yu, Y. 2011. Petroleum Hydrocarbons and their Effects on Fishery Species in the Bohai Sea, North China. *Journal of Environmental Sciences*, **23** (4) : 553-559.
- Yasmin, Z., dan Wulansarie, R. 2018. Review Perbandingan Pencemaran Minyak di Perairan dengan Proses Bioremediasi Menggunakan Metode Biostimulus dan Bioaugmentasi. *Jurnal Reka Buana*, **3** (1) : 67-72.
- Yazis, M., Asia, L., Piram, A., Doumenq, P., and Syakti, A. D. 2016. Aliphatics Hydrocarbon Content in Surface Sediment from Jakarta Bay, Indonesia. *IOP Conference Series: Materials Science and Engineering*, **107** (1) : 1-8.
- Yogaswara, D. 2017. Polisiklik Aromatik Hidrokarbon (PAH) dalam Air Laut dan Sedimen di Perairan Teluk Jakarta. *Jurnal Geologi Kelautan*, **15** (2) : 63-72.
- Yogaswara, D., Wulandari, I. T. A., dan Falahudin, D. 2019. Distribusi Spasial, Sumber Pencemaran, dan Kajian Risiko Ekologi Polisiklik Aromatik Hidrokarbon (PAH) dalam Sedimen Pesisir di Pulau Bintan , Indonesia. *Jurnal Teknologi Lingkungan*, **20** (2) : 271-280.
- Yolantika, H., Periadnadi, dan Nurmiati. 2015. Isolasi Bakteri Pendegradasi Hidrokarbon di Tanah Tercemar Lokasi Perbengkelan Otomotif. *Jurnal Biologi Universitas Andalas*, **4** : 153-157.
- Yunker, M. B., Macdonald, R. W., Vingarzan, R., Mitchell, H., Goyette, D., and Sylvestre, S. 2002. PAHs in The Fraser River Basin: A Critical Appraisal of PAH Ratios As Indicators of PAH Source and Composition. *Organic Geochemistry*, **33** : 489-515.
- Zhang, D., Liu, J., Jiang, X., Cao, K., Yin, P., and Zhang, X. 2016. Distribution, Sources and Ecological Risk Assessment of PAHs in Surface Sediments from the Luan River Estuary, China. *Marine Pollution Bulletin*, **102** (1) : 223-229.