

DAFTAR PUSTAKA

- Abe, C. A. L., Faria, C. B., de Castro, F. F., de Souza, S. R., dos Santos, F. C., da Silva, C. N., Tessmann, D. J., & Barbosa-Tessmann, I. P. (2015). Fungi isolated from maize (*Zea mays* L.) grains and production of associated enzyme activities. *International Journal of Molecular Sciences*, *16*(7), 15328–15346.
- Agu, K.C., Umeoduagu, N.D., Victor, A.T., Uwanta, L.I., Adepeju, D., Udenweze, E.C., Awari, V.G., & Udeh, K.C. 2023. Isolation and Characterization of Proteolytic Enzyme Produced from Fungi. *Cognizance Journal of Multidisciplinary Studies*. *3*(6), 485-493.
- Ao, X. lin, Yu, X., Wu, D. tao, Li, C., Zhang, T., Liu, S. liang, Chen, S. juan, He, L., Zhou, K., & Zou, L. kou. (2018). Purification and characterization of neutral protease from *Aspergillus oryzae* Y1 isolated from naturally fermented broad beans. *AMB Express*, *8*(1), 96.
- Ayu, L., & Supriyadi, A. (2018). Pemanfaatan Limbah Tahu sebagai Media Pertumbuhan *Aspergillus flavus* DUCC-K225 untuk Produksi Enzim Protease. *Jurnal Berkala Bioteknologi*, *1*(1), 1–6.
- Azhar, F. F., Elvinawati, & Nurhamidah. (2019). Perbandingan Sensitivitas Nanopartikel Perak Dengan Reduktor Albumin Dari Telur Ayam Dan Bebek Untuk Analisis Merkuri. *Jurnal Pendidikan Dan Ilmu Kimia*, *3*(2), 213–224.
- Banik, S., Biswas, S., & Karmakar, S. (2018). Extraction, purification, and activity of protease from the leaves of *Moringa oleifera*. *F1000Research*, *7*(1151), 1–13.
- Chen, A. J., Hubka, V., Frisvad, J. C., Visagie, C. M., Houbraeken, J., Meijer, M., Varga, J., Demirel, R., Jurjevi, Z., Kub, A., Sklen, F., Zhou, Y. G., & Samson, R. A. (2017). Polyphasic taxonomy of *Aspergillus* section *Aspergillus* (formerly Eurotium), and its occurrence in indoor environments and food. *Studies in Mycology*. *135*, 37–135.
- Christensen, L. F., García-Béjar, B., Bang-Berthelsen, C. H., & Hansen, E. B. (2022). Extracellular microbial proteases with specificity for plant proteins in food fermentation. *International Journal of Food Microbiology*, *381*, 109889.
- Daba, G. M., Mostafa, F. A., & Elkhateeb, W. A. (2021). The ancient koji mold (*Aspergillus oryzae*) as a modern biotechnological tool. *Bioresources and*

Bioprocessing, 8(52), 1–17.

- Dar, G.H., Kamili, A.N., Nazir, R., Bandh, S.A., & Malik, T.A. 2014. Biotechnological production of α -amylases for industrial purposes: Do fungi have potential to produce α -amylases? *International Journal for Biotechnology and Molecular Biology Research*. 5(4), 35-40.
- Dimidi, E., Cox, S.R., Rossi, M., & Whelan, K. 2019. Fermented Foods: Definitions and Characteristics, Impact on the Gut Microbiota and Effects on Gastrointestinal Health and Disease. *Nutrients Journal*. 11(8), 1-26.
- Duniaji, A. S., Wisaniyasa, W., Puspawati, N. N., & Indri, N. M. H. (2019). Isolation and Identification of *Rhizopus oligosporus* Local Isolate Derived from Several Inoculum Sources. *International Journal of Current Microbiology and Applied Sciences*, 8(09), 1085–1098.
- Elgammal, E. W., El-Khonezy, M. I., Ahmed, E. F., & Abd-Elaziz, A. M. (2020). Enhanced production, partial purification, and characterization of alkaline thermophilic protease from the endophytic fungus *Aspergillus ochraceus* BT21. *Egyptian Pharmaceutical Journal*, 19(4), 338–349.
- Emochone, R. Y., Shaibu, C., Abah, M. A., & Tibile, S. T. (2023). Isolation, Partial Purification and Characterization of Proteases from *Aspergillus niger* under Solid-State Fermentation. *Asian Journal of Research in Biosciences*, 5(1), 27–34.
- Eshananda, Y., Fikriyya, N., & Fadlilah, S. H. (2023). Deteksi Molekuler Bakteri Patogen pada Makanan Fermentasi Tempe Dage berdasarkan marka gen 16S rRNA. *Agropross : National Conference Proceedings of Agriculture*, 591–598.
- Faikar, R.A., Marlina, E.T., & Hidayati, Y.A. 2024. Isolasi dan Identifikasi Kapang dan Khamir pada Ekoenzim Campuran Feses Sapi Potong dan Jerami Padi pada Lama Fermentasi yang Berbeda. *Jurnal Teknologi Hasil Peternakan*. 5(2), 19-38.
- Gidalishova, C. G., Usaeva, Y. S., & Turlova, F. S. (2023). Biological features of fungi of the genus *Mucor*. *BIO Web of Conferences*, 63, 1–7.
- Gnanadoss, J. J., & Devi, S. K. (2015). Optimization of Nutritional and Culture Conditions for Improved Protease Production by *Aspergillus nidulans* and *Aspergillus flavus*. *Journal of Microbiology, Biotechnology, and Food Sciences*, 4(6), 518–523.
- Hadinoto, S., & Syukroni, I. 2019. Pengukuran Protein Terlarut Air Cucian Gelembung Renang dan Kulit Ikan Tuna Menggunakan Metode Bradford. *Jurnal Majalah Biam*. 15(1), 15-20.

- Hartanti, A.T., Rahayu, G., & Hidayat, I. 2015. Rhizopus Species from Fresh Tempeh Collected from Several Regions in Indonesia. *HAYATI Journal of Biosciences*. 22: 136-142.
- Hengkengbala, S.I., Lintang, R., Sumilat, D.A., Mangindaan, R., Ginting, E., & Tumembouw, S. 2021. Karakteristik Morfologi dan Aktivitas Enzim Protease Bakteri Simbion Nudibranch. *Jurnal Pesisir dan Laut Tropis*. 9(3): 83-94.
- Hidayat, R. A., & Isnawati. (2021). Isolasi dan Karakterisasi Jamur Selulolitik pada Fermentodege : Pakan Fermentasi Berbahan Campuran Eceng Gondok , Bekatul Padi , dan Tongkol Jagung. *Lentera Bio: Berkala Ilmiah Biologi*, 10(02), 176–187.
- Huang, L., Dong, L., Wang, B., & Pan, L. (2020). The transcription factor PrtT and its target protease profiles in *Aspergillus niger* are negatively regulated by carbon sources. *Biotechnology Letters*, 42(4), 613–624.
- Itoh, E., Odakura, R., Oinuma, K. I., Shimizu, M., Masuo, S., & Takaya, N. (2017). Sirtuin E is a fungal global transcriptional regulator that determines the transition from the primary growth to the stationary phase. *Journal of Biological Chemistry*, 292(26), 11043-11054
- Jadhav, R., Mach, R. L., & Mach, A. R. (2024). Protein secretion and associated stress in industrially employed filamentous fungi. *Applied Microbiology and Biotechnology*, 108(92), 1–14.
- Jing, R., Yang, W., Xiao, M., Li, Y., Xu, Y., & Hsueh, P. (2022). ScienceDirect Species identification and antifungal susceptibility testing of *Aspergillus* strains isolated from patients with otomycosis in northern China. *Journal of Microbiology, Immunology and Infection*, 55(2), 282–290.
- Kocabaş, D.S., Lyne, J., & Ustunol, Z. 2022. Hydrolytic enzymes in the dairy industry: Applications, market and future perspectives. *Trends in Food Science & Technology Journal*. 119: 467-475.
- Kurniatanty, I., & Widowati, E. W. (2021). Enzymatic Activity of Protease Producing Bacteria from Tofu Waste. *EPiC Series in Biological Sciences*, 1, 67–71.
- Kwon, J., Ryu, J., Thi, T., Chi, P., Shen, S., Kwon, J., Ryu, J., Thi, T., Chi, P., Shen, S., & Choi, O. (2018). Soft Rot of *Rhizopus oryzae* as a Postharvest Pathogen of Banana Fruit in Korea. *Mycobiology*, 40(3), 214-216.
- Leiskayanti, Y., Sriherwanto, C., & Sujai, I. (2017). Fermentasi menggunakan ragi tempe sebagai cara biologis pengapungan pakan ikan. *Jurnal Bioteknologi Dan Biosains Indonesia*, 4(02), 54–63.

- Liu, D., Garrigues, S., & Vries, R. P. De. (2023). Heterologous protein production in filamentous fungi. *Applied Microbiology and Biotechnology*, 107(16), 5019–5033.
- Li, Q., Lu, J., Zhang, G., Liu, S., & Zhou, J. (2022). Bioresource Technology Recent advances in the development of *Aspergillus* for protein production. *Bioresource Technology*, 348(December 2021), 126768.
- Li, Y., Ruan, S., Zhou, A., Xie, P., & Azam, S. M. R. (2022). Ultrasonic modification on fermentation characteristics of *Bacillus* varieties : Impact on protease activity , peptide content and its correlation coefficient. *LWT*, 154, 112852.
- Londoño-Hernández, L., García-Gómez, M. de J., Huerta-Ochoa, S., Polanía-Rivera, A. M., Aguilar, C. N., & Prado-Barragán, L. A. (2024). Effect of Glucose Concentration on the Production of Proteolytic Extract by Different Strains of *Aspergillus* under Solid-State Fermentation. *Fermentation*, 10(2), 1–14.
- Mahardika, W.A., Ramadhany, W., & Lunggani, A.T. 2021. Karakterisasi dan penapisan enzim protease, amilase, serta selulase isolat kapang filoplan *Avicennia marina* (Forssk.) Vierh. *Jurnal Biologi Universitas Andalas*. 9(2): 54-59.
- Maitig, A., Mohamed, A., & Kartikya, T. (2018). Isolation and Screening of Extracellular Protease Enzyme from Fungal Isolates of Soil. *Journal of Pure and Applied Microbiology*, 12(4), 2059–2067.
- Marnolia, A., Haryani, Y., & Puspita, F. 2016. Uji Aktivitas Enzim Protease dari Isolat *Bacillus sp.* Endofit Tanaman Kelapa Sawit (*Elaeis quinensis*). *Jurnal Photon*. 6(2): 1-5.
- Miranti, K.A., Rukmi, M.G.I., & Supriyadi, A. 2015. Diversitas Kapang Serasah Daun Talok (*Muntingia calabura* L.) Di Kawasan Desa Sukolilo Barat, Kecamatan Labang, Kabupaten Bangkalan, Madura. *Jurnal BIOMA*. 16(2): 58-64.
- Mótyán, J., Tóth, F., & Tőzsér, J. (2013). Research Applications of Proteolytic Enzymes in Molecular Biology. *Biomolecules*, 3(4), 923–942.
- Mulyani, R., Adi, P., & Yang, J.J. 2022. Produk Fermentasi Tradisional Indonesia Berbahan Dasar Pangan Hewani (Daging dan Ikan): a Review. *Journal of Applied Agriculture, Health, and Technology*. 1(2): 34-48.
- Ntana, F., Mortensen, U. H., Sarazin, C., & Figge, R. (2020). *Aspergillus*: A powerful protein production platform. *Catalysts*, 10(9), 1–29.

- Ortiz, G. E., Nosedá, D. G., Ponce Mora, M. C., Recupero, M. N., Blasco, M., & Albertó, E. (2016). A Comparative Study of New *Aspergillus* Strains for Proteolytic Enzymes Production by Solid State Fermentation. *Enzyme Research*, 2016(1), 3016149.
- Patil, L., Tennalli, G. B., Shet, A. R., Hombalimath, V. S., & Patil, L. R. (2019). Isolation and Characterization of *Rhizopus* Producing Acid Proteases. *International Journal of Pharmaceutical Sciences Review and Research*, 57(2), 130–132.
- Prawira, I., Isworo, R., & Wijanarka. (2015). Produksi Enzim Protease *Aspergillus Flavus* Pam-25 Dengan Variasi Ph Dan Waktu Inkubasi. *Jurnal Biologi*, 4(2), 10–16.
- Putra, W.A., Karnila, R., & Diharmi, A. 2021. Aktivitas Ekstrak Kasar Enzim Kolagenase dari Organ Dalam Ikan Malong (*Congresox talabon*) pada pH Berbeda. *Jurnal Teknologi dan Industri Pertanian Indonesia*. 13(1): 27-30.
- Riadi, I., Octavia, B., & Habibi, M. 2021. Deteksi dan Identifikasi Kapang pada Proses Biodeteriorasi Arsip Foto Memory Of The World (MOW) Restorasi Candi Borobudur. *Jurnal Borobudur*. 15(1): 3-14.
- Robinson, P. K. (2015). Enzymes: principles and biotechnological applications. *Essays in Biochemistry*, 59, 1–41.
- Romulo, A. & Surya, R. 2021. Tempe: A traditional fermented food of Indonesia and its health benefits. *International Journal of Gastronomy and Food Science*. 26: 1-6.
- Saboti, J., & Kos, J. (2012). Microbial and fungal protease inhibitors — current and potential applications. *Appl Microbiol Biotechnol*, 93, 1351–1375.
- Saif, F. A., Yaseen, S. A., Alameen, A. S., Mane, S. B., & Undre, P. B. (2020). Identification of *Penicillium* Species of Fruits Using Morphology and Spectroscopic Methods. *Journal of Physics: Conference Series*, 1664(1), 1–10.
- Şanlıer, N., Gökçen, B.B., & Sezgin, A.C. 2017. Health benefits of fermented foods. *Critical Reviews in Food Science and Nutrition*. 0(0): 1-22.
- Santoso, S., & Cori, C. 2023. Penguatan Kualitas Produksi dan Pengemasan Tempe di Batu Tumbuh Jatiwaringin. *Jurnal Pengabdian Kepada Masyarakat*. 1-6.
- Sedijani, P., Lestari, D. P., Rasmi, D. A. C., & Kusmiyati, K. (2023). Protease Enzyme Activity of Fungal Isolates from Avocado and Coconut Fleshes

- on Different pH and Temperature. *Jurnal Biologi Tropis*, 23(4).
- Shad, A. A., Ahmad, T., Iqbal, M. F., Asad, M. J., Nazir, S., Mahmood, R. T., & Wajeeha, A. W. (2024). Production, Partial Purification and Characterization of Protease through Response Surface Methodology by *Bacillus subtilis* K-5. *Brazilian Archives of Biology and Technology*, 67, 1–16.
- Sibero, M. T., Tarman, K., Radjasa, O. K., Sabdono, A., Trianto, A., & Bachtiarini, T. U. (2018). Produksi Pigmen dan Identifikasi Kapang Penghasilnya Menggunakan Pendekatan DNA Barcoding. *Jurnal Pengolahan Hasil Perikanan Indonesia*, 21(1), 99.
- Sine, Y., & Soetarto, E. S. (2018). Isolasi dan identifikasi kapang *Rhizopus* pada tempe gude (*Cajanus cajan* L.). *Savana Cendana*, 3(04), 67–68.
- Syahadi, A., Suhartatik, N., & Widanti, Y. (2022). Karakteristik Fisikokimia Tempe Ampas Tahu-Kacang Merah (*Phaseolus vulgaris* L.). *Jurnal Teknologi Dan Industri Pangan UNISRI*, 7(2), 125–130.
- Tavano, O. L., Berenguer-murcia, A., Secundo, F., & Fernandez-lafuente, R. (2018). Biotechnological Applications of Proteases in Food Technology. *Comprehensive Reviews in Food Science and Food Safety*, 17(2), 412–436.
- Usman, A., Mohammed, S., & Mamo, J. (2021). Production , Optimization , and Characterization of an Acid Protease from a Filamentous Fungus by Solid-State Fermentation. *International Journal of Microbiology*, 2021, 1–12.
- Utami, G.P., Pratama, A.Y., & Paradise. 2024. Pendampingan Perancangan Identitas Visual Dalam Upaya Pembentukan Citra Produk Dage Mekarsari. *JURPIKAT (Jurnal Pengabdian Kepada Masyarakat)*. 5(3): 987-997.
- Wang, B.R., Zhi, W.X., Han, Y.S., Zhao, H.F., Liu, Y.X., Xu, S.Y., Zhang, Y.H., Mu, Z.S. 2024. Adaptability to the environment of protease by secondary structure changes and application to enzyme-selective hydrolysis. *International Journal of Biological Macromolecules*. 278: 1-16.
- Walewangko, M.S., Posangi, J., & Yamlean, P. 2019. Uji Efek Antibakteri Jamur Endofit pada Tumbuhan Kemangi (*Ocimum basilicum* L.) pada Bakteri Uji *Staphylococcus aureus* dan *Escherichia coli*. *Jurnal Pharmacon*. 8(3): 716-724.
- Wei, M., Chen, P., Zheng, P., Tao, X., Yu, X., & Wu, D. (2023). Purification and characterization of aspartic protease from *Aspergillus niger* and its efficient hydrolysis applications in soy protein degradation. *Microbial Cell*

Factories, 22(1), 1–9.

- Wibisono, A., Wisesa, H.A., Rahmadhani, Z.P., Fahira, P.K., Mursanto, P., & Jatmiko, W. 2020. Traditional food knowledge of Indonesia: a new high-quality food dataset and automatic recognition system. *Journal of Big Data*. 7(69): 1-19.
- Yarlina, M. P., Nabilah, F., Djali, M., Andoyo, R., & Lani, M. N. (2023). Mold characterization in "Raprima" tempeh yeast from LIPI and over-fermented koro pedang (jack beans) tempeh. *Food Research*, 7(1), 125–132.
- Yusriah, & Kuswyasari, N.D. 2013. Pengaruh pH dan Suhu Terhadap Aktivitas Protease *Penicillium* sp.. *Jurnal Sains dan Seni Pomits*. 2(1), 48-50.
- Zhao, Y., Zhao, X., Sun-waterhouse, D., Ivan, G., Waterhouse, N., Zhao, M., Zhang, J., Wang, F., & Su, G. (2021). Two-stage selective enzymatic hydrolysis generates protein hydrolysates rich in Asn-Pro and Ala-His for enhancing taste attributes of soy sauce. *Food Chemistry*, 345(November 2020), 128803.
- Zulfa, A., Qonitah, T.A., Ragamustari, S.K., & Prasasty, V.D. 2024. Uji Aktivitas Enzim Selulase Baglog Jamur *Pleurotus cystidiosus*, *Pleurotus ostreatus* dan *Auricularia auricula* dengan Pelarut Berbeda. *Jurnal Pendidikan Biologi, Biologi, dan Ilmu Serumpun*. 11(2), 173-182.
- Zulkifli, N. A., & Zakaria, L. (2017). Morphological and Molecular Diversity of *Aspergillus* From Corn Grain Used as Livestock Feed. *HAYATI Journal of Biosciences*, 24(1), 26–34.