

DAFTAR PUSTAKA

- Afshar, M., Dini, G., Vaezifar, S., Mehdikhani, M., & Movahedi, B. (2020). Preparation and characterization of sodium alginate/polyvinyl alcohol hydrogel containing drug-loaded chitosan nanoparticles as a drug delivery system. *Journal of Drug Delivery Science and Technology*, *56*, 101530. <https://doi.org/10.1016/J.JDDST.2020.101530>
- Ahsan, H. (2019). The biomolecules of beauty: biochemical pharmacology and immunotoxicology of cosmeceuticals. *Journal of immunoassay & immunochemistry*, *40*(1), 91–108. <https://doi.org/10.1080/15321819.2018.1555766>
- Alam, F., Khan, G. N., & Asad, M. H. H. Bin. (2018). Psoralea corylifolia L: Ethnobotanical, biological, and chemical aspects: A review. *Phytotherapy Research*, *32*(4), 597–615. <https://doi.org/10.1002/ptr.6006>
- Allen LV. (1998) *The art and technologi of pharmaceutical compounding*, American Pharmaceutical Association, Whashington DC, 322-323
- Aslani, A., Zolfaghari, B., & Fereidani, Y. (2018). Design, formulation, and evaluation of a herbal gel contains melissa, sumac, licorice, rosemary, and geranium for treatment of recurrent labial herpes infections. *Dental Research Journal*, *15*(3), 191. <https://doi.org/10.4103/1735-3327.231865>
- Beringhs, A. O. R., Rosa, J. M., Stulzer, H. K., Budal, R. M., & Sonaglio, D. (2013). Green clay and aloe vera peel-off facial masks: Response surface methodology applied to the formulation design. *AAPS PharmSciTech*, *14*(1), 445–455. <https://doi.org/10.1208/s12249-013-9930-8>
- Bluemke, A., Ring, A. P., Immeyer, J., Hoff, A., Eisenberg, T., Gerwat, W., Meyer, F., Breitzkreutz, S., Klinger, L. M., Brandner, J. M., Sandig, G., Seifert, M., Segger, D., Rippke, F., & Schweiger, D. (2022). Multidirectional activity of bakuchiol against cellular mechanisms of facial ageing - Experimental evidence for a holistic treatment approach. *International journal of cosmetic science*, *44*(3), 377–393. <https://doi.org/10.1111/ICS.12784>
- Budiman, A., Aulifa, D. L., Kusuma, A. S. W., Kurniawan, I. S., & Sulastrri, A. (2017). Peel-off gel formulation from black mulberries (*Morus nigra*) extract as anti-acne mask. *National Journal of Physiology, Pharmacy and Pharmacology*, *7*(9), 987–994. <https://doi.org/10.5455/njppp.2017.7.0413123052017>

- Castro, R. H., Corredor, L. M., Llanos, S., Causil, M. A., Arias, A., Pérez, E., Quintero, H. I., Romero Bohórquez, A. R., Franco, C. A., & Cortés, F. B. (2024). Experimental Investigation of the Viscosity and Stability of Scleroglucan-Based Nanofluids for Enhanced Oil Recovery. *Nanomaterials* 2024, Vol. 14, Page 156, 14(2), 156.
<https://doi.org/10.3390/NANO14020156>
- Chaudhuri, R. K., & Bojanowski, K. (2014). Bakuchiol: a retinol-like functional compound revealed by gene expression profiling and clinically proven to have anti-aging effects. *International Journal of Cosmetic Science*, 36(3), 221–230. <https://doi.org/10.1111/ICS.12117>
- Chen, X., & Taguchi, T. (2020). Enhanced Skin Adhesive Property of Hydrophobically Modified Poly(vinyl alcohol) Films. *ACS Omega*, 5(3), 1519–1527.
https://doi.org/10.1021/ACSOMEGA.9B03305/ASSET/IMAGES/MEDIUM/AO9B03305_M001.GIF
- Eslami, Z., Elkoun, S., Robert, M., & Adjallé, K. (2023). A Review of the Effect of Plasticizers on the Physical and Mechanical Properties of Alginate-Based Films. *Molecules* 2023, Vol. 28, Page 6637, 28(18), 6637.
<https://doi.org/10.3390/MOLECULES28186637>
- Faers, M. A., Choudhury, T. H., Lau, B., McAllister, K., & Luckham, P. F. (2006). Syneresis and rheology of weak colloidal particle gels. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 288(1–3), 170–179.
<https://doi.org/10.1016/J.COLSURFA.2006.03.031>
- Florowska, A., Hilal, A., Florowski, T., Mrozek, P., & Wroniak, M. (2022). Sodium Alginate and Chitosan as Components Modifying the Properties of Inulin Hydrogels. *Gels*, 8(1). <https://doi.org/10.3390/GELS8010063>
- Fukumori, T., & Nakaoki, T. (2014). High-tensile-strength polyvinyl alcohol films prepared from freeze/thaw cycled gels. *Journal of Applied Polymer Science*, 131(15). <https://doi.org/10.1002/APP.40578>
- Gabriela Belarmino Dantas, M., Alan Gonçalves Bomfim Reis, S., Mahara Dias Damasceno, C., Araújo Rolim, L., José Rolim-Neto, P., Oliveira Carvalho, F., José Quintans-Junior, L., & Roberto Guedes da Silva Almeida, J. (2016). *Development and Evaluation of Stability of a Gel Formulation Containing the Monoterpene Borneol*.
<https://doi.org/10.1155/2016/7394685>

- Garg AD, Aggarwal S, Garg and AK Sigla. (2002). *Spreading of semisolid formulation: An update. Pharmaceutical Tecnology*. North America.
- Goldberg, D. J., Robinson, D. M., & Granger, C. (2019). Clinical evidence of the efficacy and safety of a new 3-in-1 anti-aging topical night serum-in-oil containing melatonin, bakuchiol, and ascorbyl tetraisopalmitate: 103 females treated from 28 to 84 days. *Journal of Cosmetic Dermatology*, 18(3), 806–814. <https://doi.org/10.1111/jocd.12896>
- Gowsia, I., Feroz, ., Mir, A., & Banday, J. A. (2022). *Preparation and characterization of polyvinyl alcohol-piperic acid composite film for potential food packaging applications*. 11, 281–295. <https://doi.org/10.1007/s40204-022-00195-6>
- Greenzaid, J., Friedman, A., & Sodha, P. (2022). The Use of Bakuchiol in Dermatology: A Review of In Vitro and In Vivo Evidence. *Journal of drugs in dermatology : JDD*, 21(6), 624–629. <https://doi.org/10.36849/JDD.6740>
- Guo, H., Ge, J., Wu, Q., He, Z., Wang, W., & Cao, G. (2022). Syneresis Behavior of Polymer Gels Aged in Different Brines from Gelants. *Gels* 2022, Vol. 8, Page 166, 8(3), 166. <https://doi.org/10.3390/GELS8030166>
- Haghighi, M., & Rezaei, K. (2012). General Analytical Schemes for the Characterization of Pectin-Based Edible Gelled Systems. *The Scientific World Journal*, 2012, 12. <https://doi.org/10.1100/2012/967407>
- Hamal, P., Subasinghege Don, V., Nguyenhuu, H., Ranasinghe, J. C., Nauman, J. A., McCarley, R. L., Kumar, R., & Haber, L. H. (2021). Influence of Temperature on Molecular Adsorption and Transport at Liposome Surfaces Studied by Molecular Dynamics Simulations and Second Harmonic Generation Spectroscopy. *Journal of Physical Chemistry B*, 125(37), 10506–10513. <https://doi.org/10.1021/acs.jpccb.1c04263>
- Hariyadi, D. M., Isnaeni, I., Sudarma, S., Suciati, S., & Rosita, N. (2020). Peel-off emulgel mask of Cocos nucifera L. Extract using gelling agent carbomer 940 as antiacne against Propionibacterium acnes ATCC 11827. *Journal of Advanced Pharmaceutical Technology and Research*, 11(4), 220–225. https://doi.org/10.4103/japtr.JAPTR_51_20
- Jadach, B., Świetlik, W., & Froelich, A. (2022). Sodium Alginate as a Pharmaceutical Excipient: Novel Applications of a Well-known Polymer.

Journal of Pharmaceutical Sciences, 111(5), 1250–1261.
<https://doi.org/10.1016/J.XPHS.2021.12.024>

Jaferník, K., Halina, E., Ercisli, S., & Szopa, A. (2021). Characteristics of bakuchiol - the compound with high biological activity and the main source of its acquisition - Cullen corylifolium (L.) Medik. *Natural Product Research*, 35(24), 5828–5842.
<https://doi.org/10.1080/14786419.2020.1837813>

Jagadeesh, D., Prem Kumar, B., Sudhakara, P., Venkata Prasad, C., Varada Rajulu, A., & Song, J. I. (2013). Preparation and Properties of Propylene Glycol Plasticized Wheat Protein Isolate Novel Green Films. *Journal of Polymers and the Environment*, 21(4), 930–936.
<https://doi.org/10.1007/s10924-013-0572-4>

Joshi, S. C. (2011). Sol-Gel Behavior of Hydroxypropyl Methylcellulose (HPMC) in Ionic Media Including Drug Release. *Materials*, 4(10), 1861.
<https://doi.org/10.3390/MA4101861>

Kaklamani, G., Cheneler, D., Grover, L. M., Adams, M. J., & Bowen, J. (2014). Mechanical properties of alginate hydrogels manufactured using external gelation. *Journal of the Mechanical Behavior of Biomedical Materials*, 36, 135–142. <https://doi.org/10.1016/J.JMBBM.2014.04.013>

Kar, M., Chourasiya, Y., Maheshwari, R., & Tekade, R. K. (2019). Current Developments in Excipient Science: Implication of Quantitative Selection of Each Excipient in Product Development. *Basic Fundamentals of Drug Delivery*, 29–83. <https://doi.org/10.1016/B978-0-12-817909-3.00002-9>

Krishna, A. T. P., Edachery, B., & Athalathil, S. (2022). Bakuchiol - a natural meroterpenoid: structure, isolation, synthesis and functionalization approaches. *RSC Advances*, 12(14), 8815–8832.
<https://doi.org/10.1039/d1ra08771a>

Lim, C., Song, Y. H., Song, Y., Seo, J. H., Hwang, D. S., & Lee, D. W. (2021). Adaptive amphiphilic interaction mechanism of hydroxypropyl methylcellulose in water. *Applied Surface Science*, 565, 150535.
<https://doi.org/10.1016/J.APSUSC.2021.150535>

Meng, Z., Wang, H., Liu, Y., Yang, M., Zeng, H., & Han, Q. (2023). Evaluation of the effectiveness of alginate-based hydrogels in preventing peritoneal adhesions. *Regenerative Biomaterials*, 10.
<https://doi.org/10.1093/RB/RBAD017>

- Mollet, H. & Grubenman, A., 2001, *Formulation Technology: Emulsion, Suspension, Solid Form*, Wiley-VCH, Toronto.
- Morakul, B., Wongrakpanich, A., Teeranachaidekul, V., Washiradathsathien, K., & Gamolvate, A. (2023). Clindamycin Peel-Off Mask Film, An Effective Formulation For C. Acnes Treatment: Characterization And Microbiological Activity. *Indonesian Journal of Pharmacy*, 34(1), 128–139. <https://doi.org/10.22146/ijp.5167>
- Narasimhan, B. N., Deijs, G. S., Manuguri, S., Sheng, M., Ting, H., Williams, M. A. K., Malmström, J., & Malmström, M. (2021). *A comparative study of tough hydrogen bonding dissipating hydrogels made with different network structures*. <https://doi.org/10.1039/d1na00103e>
- Nemati, M. M., Abedi, M., Ghasemi, Y., Ashrafi, H., & Haghdel, M. (2024). Formulation and evaluation of antioxidant and antibacterial activity of a peel-off facial masks moisturizer containing curcumin and Rosa Damascena extract. *Journal of Cosmetic Dermatology*, 23(6), 2156–2169. <https://doi.org/10.1111/JOCD.16255>
- Nilforoushzadeh, M. A., Amirkhani, M. A., Zarrintaj, P., Salehi Moghaddam, A., Mehrabi, T., Alavi, S., & Mollapour Sisakht, M. (2018). Skin care and rejuvenation by cosmeceutical facial mask. *Journal of Cosmetic Dermatology*, 17(5), 693–702. <https://doi.org/10.1111/JOCD.12730>
- Nurman, S., Yulia, R., Irmayanti, Noor, E., & Sunarti, T. C. (2019). The Optimization of Gel Preparations Using the Active Compounds of Arabica Coffee Ground Nanoparticles. *Scientia Pharmaceutica 2019, Vol. 87, Page 32*, 87(4), 32. <https://doi.org/10.3390/SCIPHARM87040032>
- Nursal, F. K., Nining, & Rahmah, A. S. (2021). Formulation and development of grape seed oil (Vitis Vinifera L) emulgel peel-off mask using gelling agent hydroxy propyl methyl cellulose (HPMC). *IOP Conference Series: Earth and Environmental Science*, 755(1). <https://doi.org/10.1088/1755-1315/755/1/012046>
- Pan, P., Svirskis, D., Waterhouse, G. I. N., & Wu, Z. (2023). Hydroxypropyl Methylcellulose Bioadhesive Hydrogels for Topical Application and Sustained Drug Release: The Effect of Polyvinylpyrrolidone on the Physicomechanical Properties of Hydrogel. *Pharmaceutics 2023, Vol. 15, Page 2360*, 15(9), 2360. <https://doi.org/10.3390/PHARMACEUTICS15092360>

- Pham, T. L. B., Thi, T. T., Nguyen, H. T. T., Lao, T. D., Binh, N. T., & Nguyen, Q. D. (2022). Anti-Aging Effects of a Serum Based on Coconut Oil Combined with Deer Antler Stem Cell Extract on a Mouse Model of Skin Aging. *Cells*, *11*(4). <https://doi.org/10.3390/CELLS11040597>
- Purnomo, H., & Syamsul, E. S. (2017). *STATISTIKA FARMASI (Aplikasi Praktis dengan SPSS)*. CV. Grafika Indah.
- Puyana, C., Chandan, N., & Tsoukas, M. (2022). Applications of bakuchiol in dermatology: Systematic review of the literature. *Journal of Cosmetic Dermatology*, *21*(12), 6636–6643. <https://doi.org/10.1111/JOCD.15420>
- Rao, X., Zhou, Q., Wen, Q., Ou, Z., Fu, L., Gong, Y., Du, X., & Huo, C. (2022). High-Performance and Water Resistant PVA-Based Films Modified by Air Plasma Treatment. *Membranes*, *12*(3). <https://doi.org/10.3390/MEMBRANES12030249/S1>
- Rostkowska, E., Poleszak, E., Wojciechowska, K., & Dos Santos Szewczyk, K. (2023). Dermatological Management of Aged Skin. *Cosmetics 2023, Vol. 10, Page 55*, *10*(2), 55. <https://doi.org/10.3390/COSMETICS10020055>
- Rowe, R. C., Sheskey, P. J., & Quinn, M. E. (2009). *Handbook of Pharmaceutical excipients* (Sixth). Pharmaceutical Press. <https://doi.org/10.1016/B978-0-12-820007-0.00032-5>
- Sabale, V., Kunjwani, H., & Sabale, P. (2011). Formulation and in vitro evaluation of the topical antiageing preparation of the fruit of Benincasa hispida. *Journal of Ayurveda and Integrative Medicine*, *2*(3), 124. <https://doi.org/10.4103/0975-9476.85550>
- Shrestha, S., Jadav, H. R., Bedarkar, P., Patgiri, B. J., Harisha, C. R., Chaudhari, S. Y., & Prajapati, P. K. (2018). Pharmacognostical evaluation of *Psoralea corylifolia* Linn. seed. *Journal of Ayurveda and Integrative Medicine*, *9*(3), 209–212. <https://doi.org/10.1016/j.jaim.2017.05.005>
- Singh, S., Chunglok, W., Nwabor, O. F., Ushir, Y. V., Singh, S., & Panpipat, W. (2022). Hydrophilic Biopolymer Matrix Antibacterial Peel-off Facial Mask Functionalized with Biogenic Nanostructured Material for Cosmeceutical Applications. *Journal of Polymers and the Environment*, *30*(3), 938–953. <https://doi.org/10.1007/s10924-021-02249-5>
- Sivaraman, A., Ganti, S. S., Nguyen, H. X., Birk, G., Wieber, A., Lubda, D., & Banga, A. K. (2017). Development and evaluation of a polyvinyl alcohol

based topical gel. *Journal of Drug Delivery Science and Technology*, 39, 210–216. <https://doi.org/10.1016/J.JDDST.2017.03.021>

Surini, S., & Auliyya, A. (2017). Formulation of an anti-wrinkle hydrogel face mask containing ethanol extract of noni fruit (*Morinda citrifolia* L) for use as a nutracosmeceutical product. *International Journal of Applied Pharmaceutics*, 9, 74–76. https://doi.org/10.22159/ijap.2017.v9s1.41_47

Syakri, S., Ismail, I., Amal, N. M., Masjidi, N. A., & Tahir, K. A. (2021). Characterization and anti-aging tests of peel-off gel masks made from ethanolic extract of yarrow (*Achillea millefolium*). *Open Access Macedonian Journal of Medical Sciences*, 9(A), 1591–1596. <https://doi.org/10.3889/oamjms.2021.7574>

Szulc-Musioł, B., Siemiradzka, W., & Dolińska, B. (2023). Formulation and Evaluation of Hydrogels Based on Sodium Alginate and Cellulose Derivatives with Quercetin for Topical Application. *Applied Sciences (Switzerland)*, 13(13). <https://doi.org/10.3390/app13137826>

Tang, X., Duan, W., Xu, K., & Zheng, C. (2022). Three-dimensional network gel structure and viscosity reduction mechanism of heavy oil. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 653, 130060. <https://doi.org/10.1016/J.COLSURFA.2022.130060>

Thang, N. H., Chien, T. B., & Cuong, D. X. (2023). Polymer-Based Hydrogels Applied in Drug Delivery: An Overview. *Gels 2023, Vol. 9, Page 523*, 9(7), 523. <https://doi.org/10.3390/GELS9070523>

Thewanjutiwong, S., Phokasem, P., Disayathanoowat, T., Juntrapirom, S., Kanjanakawinkul, W., & Chaiyana, W. (2023). Development of Film-Forming Gel Formulations Containing Royal Jelly and Honey Aromatic Water for Cosmetic Applications. *Gels*, 9(10). <https://doi.org/10.3390/GELS9100816/S1>

Velasco, M. V. R., Vieira, R. P., Fernandes, A. R., Dario, M. F., Pinto, C. A. S. O., Pedriali, C. A., Kaneko, T. M., & Baby, A. R. (2014). Short-term clinical of peel-off facial mask moisturizers. *International Journal of Cosmetic Science*, 36(4), 355–360. <https://doi.org/10.1111/ics.12133>

Voigt, R. 1994. *Textbook of Pharmaceutical Technology (V Edition)*. Translator: Soendari Noerono. Yogyakarta: Gajah Mada University Press.

Wahyuni, I. S., Sufiawati, I., Shafuria, A., Nittayananta, W., & Levita, J. (2024). Formulation and Evaluation of Mucoadhesive Oral Care Gel Containing

Kaempferia galanga Extract. *Pharmaceutics*, 16(3).
<https://doi.org/10.3390/PHARMACEUTICS16030421>

Wei, Q., Yang, R., Sun, D., Zhou, J., Li, M., Zhang, Y., & Wang, Y. (2022). Design and evaluation of sodium alginate/polyvinyl alcohol blend hydrogel for 3D bioprinting cartilage scaffold: molecular dynamics simulation and experimental method. *Journal of Materials Research and Technology*, 17, 66–78. <https://doi.org/10.1016/J.JMRT.2021.12.130>

Wright, E. J., Andrews, G. P., McCoy, C. P., & Jones, D. S. (2013). The effect of dilute solution properties on poly(vinyl alcohol) films. *Journal of the mechanical behavior of biomedical materials*, 28, 222–231.
<https://doi.org/10.1016/J.JMBBM.2013.08.002>

Xiao, Q. (2018). Drying process of sodium alginate edible films forming solutions studied by LF NMR. *Food Chemistry*, 250, 83–88.
<https://doi.org/10.1016/J.FOODCHEM.2018.01.043>

Xie, C., Liu, G., Wang, L., Yang, Q., Liao, F., Yang, X., Xiao, B., & Duan, L. (2024). Synthesis and Properties of Injectable Hydrogel for Tissue Filling. *Pharmaceutics 2024, Vol. 16, Page 430, 16(3)*, 430.
<https://doi.org/10.3390/PHARMACEUTICS16030430>