

## DAFTAR PUSTAKA

- Abhari, S., Woortman, A.J.J., Hamer, R.J., dan Loos, K. (2013). Assesment of the rinfluence of amylose-LPC complexation on the extent of wheat starch digestibility by size-exclusion chromatography. *Food Chemistry* **141**:4318-4323.
- Ai, Y., Hasjim, J. dan Jane, J. (2013). Effects of lipid as on enzymatic hydrolysis and physical properties of starch. *Carbohydrate Polymers* **92**:120-127.
- Ali, T.H., dan Hasnain, A. (2013). Effect of emulsifiers on complexation and functional properties of oxidized white sorghum (*Sorghum bicolor*) starch. *Journal of Cereal Science* **57**:107-114.
- Almeida, E.L., Chang, Y.K. dan Steel, C.J. (2013). Dietary fiber sources in bread: Influence on technological quality. *LWT Food Science and Technology* **50**: 545-553.
- Alsaffar, A.A. (2011). Effect of food processing on the resistant starch content of cereals and cereal products – a review. *International Journal of Food Science and Technology* **46**:455-462.
- Anonim. (1990). *Official Methods of Analysis of AOAC International*, Method 985.29, 15<sup>th</sup> Edition, Washington D.C.
- Anonim. (2015). Konsumsi Rata-Rata per Kapita Seminggu Beberapa Macam Bahan Makanan Penting, 2007-2014. <http://www.bps.go.id/linkTabelStatis/excel/id/950>. [3 Maret 2016].
- Ashogbon, A.O. dan Akintayo, E.T. (2012). Morphological, functional and pasting properties of starches separated from rice cultivars grown in Nigeria. *International Food Research Journal* **19**:665-671.
- BeMiller, J. dan Whistler, R. (2009). *Starch: Chemistry and Technology*, 3<sup>rd</sup> edn. Academic Press, New York.
- Benmoussa, M., Moldenhauer, K.A.K. dan Hamaker, B.R. (2007). Rice amylopectin fine structure variability affects starch digestion properties. *Journal of Agricultural and Food Chemistry* **55**:1475-1479.
- Bertolini, A.C. (2010). *Starches: Characterization, Properties, and Applications*, CRC Press Taylor and Francis Group, Boca Raton.

- Biliaderis, C.G. dan Tonogai, J.R. (1991). Influence of lipidas on the mechanical properties of concentrated starch gels. *Journal of Agricultural and Food Chemistry* **39**:833-840.
- Billiris, M.A., Siebenmorgen, T.J. dan Wang, Y.-J. (2012). Rice degree of milling effects on hydration, texture, sensory and energy characteristics. Part 2. Cooking using fixed, water-to-rice ratios. *Journal of Food Engineering* **113**:589-597.
- Chang, F., He, X. dan Huang, Q. (2013a). The physicochemical properties of swelled maize starch granules complexed with lauric acid. *Food Hydrocolloids* **32**:365-372.
- Chang, F., He, X. dan Huang, Q. (2013b). Effect of lauric acid on the V-amylose complex distribution and properties of swelled normal corn starch granules. *Journal of Cereal Science* **58**:89-95.
- Chen, L., Liu, R., Qin, C., Meng, Y., Zhang, J., Wang, Y. dan Xu, G. (2010). Sources and intake of resistant starch in the Chinese diet. *Asia Pacific Journal of Clinical Nutrition* **19**:274-282.
- Chung, H.J., Lim, H.S. dan Lim, S.T. (2006). Effect of partial gelatinization and retrogradation on the enzymatic digestion on waxy rice starch. *Journal of Cereal Science* **43**:353-359.
- Chung, H.J., Liu, Q., Lee, L. dan Wei, D. (2011). Relationship between the structure, physicochemical properties and in vitro digestibility of rice starches with different amylose content. *Food Hydrocolloids* **25**:968-975.
- Dhital, S., Butardo Jr., V.M., Jobling, S.A. dan Gidley, M.J. (2015). Rice starch granule amylolysis – Differentiating effects of particle size morphology, thermal properties and crystalline polymorph. *Carbohydrate Polymers* **115**:305-316.
- Falade, K.O., Semon, M., Fadairo, O.S., Oladunjoye, A.O. dan Orou, K.K. (2014). Functional and physic-chemical properties of flours and starches of African rice cultivars. *Food Hydrocolloids* **39**:41-50.
- Falade, K.O. dan Christopher, A.S. (2015). Physical, functional, pasting and thermal properties of flour and starches of six Nigerian rice cultivars. *Food Hydrocolloids* **44**:478-490.
- Fan, D., Wang, L., Chen, W., Ma, S., Ma, W., Liu, X., Zhao, J. dan Zhang, H. (2014). Effect of microwave on lamellar parameters of rice starch through small-angle X-ray scattering. *Food Hydrocolloids* **35**:620-626.

- Faridah, D.N., Fardiaz, D., Andarwulan, N. dan Sunarti, T.C. (2010). Perubahan struktur pati garut (*Maranta arundinaceae*) sebagai akibat modifikasi hidrolisis asam, pemotongan titik percabangan dan siklus pemanasan-pendinginan. *Jurnal Teknologi dan Industri Pangan* **XXI**:135-142.
- Flores-Morales, A., Estrada, M.J. dan Escobedo, R.M. (2012). Determination of the structural changes by FT-IR, Raman, and CP/MAS  $^{13}\text{C}$  NMR spectroscopy on retrograded starch of maize tortillas. *Carbohydrate Polymers* **87**:61-68.
- Frei, M., Siddhuraju, P. dan Becker, K. (2003). Studies on the in vitro starch digestibility and the glycemic index of six different indigenous rice cultivars from the Philippines. *Food Chemistry* **83**:395-402.
- García-Rosas, M., Bello-Pérez, A., Yee-Madeira, H., Ramos, G., Flores-Morales, A. dan Mora-Escobedo, R. (2009). Resistant starch content and structural changes in maize (*Zea mays*) tortillas during storage. *Starch/Stärke* **61**:414-421.
- Gelders, G.G., Duyck, J.P., Goesaert, H. dan Delcour, J.A. (2005). Enzyme and acid resistance of amylose-lipida complexes differing in amylose chain length, lipida, and complexation temperature. *Carbohydrate Polymers* **60**:379-389.
- Goni, I, Diz, G.L., Manas, E. dan Calixto, S.F. (1996). Analysis of resistant starch: a method for foods products. *Food Chemistry* **56**: 445-449.
- Haralampu, S.G. (2000). Resistant starch – a review of the physical properties and biological impact of RS<sub>3</sub>. *Carbohydrate Polymers* **41**:285-292.
- Hasjim, J., Li, E. dan Dhital, S. (2013). Milling of rice grains: Effects of starch/flour structures on gelatinization and pasting properties. *Carbohydrate Polymers* **92**:682-690.
- Hayati, R. (2009). Perbandingan susunan dan kandungan asam lemak kelapa muda dan kelapa tua (*Cocos nucifera* L.) dengan metode gas kromatografi. *Jurnal Floratek* **4**:18-28.
- Hayati, R. (2010). Profil asam lemak dan triasilgliserol berantai sedang (MCFA) dalam kelapa segar dan santan. *Agrista* **14**:82-86.
- Hu, P., Zhao, H., Duan, Z., Linlin, Z. dan Wu, D. (2004). Starch digestibility and the estimated glycemic score of different types of rice differing in amylose content. *Journal of Cereal Science* **40**:231-237.

- Jinorose, M., Prachayawarakorn, S. dan Soponronnarit, S. (2014). A novel image-analysis based approach to evaluate some physicochemical and cooking properties of rice kernels. *Journal of Food Engineering* **124**:184-190.
- Juansang, J., Puttanlek, C., Rungsardthong, V., Pucha-arnon, S. dan Uttapap, D. (2012). Effect of gelatinization on slowly digestible starch and resistant starch of heat-moisture treated and chemically modified canna starches. *Food Chemistry* **131**:500-507.
- Kang, H.-J., Hwang, I.-K, Kim, K.-S. dan Choi, H.-C. (2003). Comparative structure and physicochemical properties of Ilpumbyeo, a high-quality Japonica rice, and its mutant Suweon 464. *Journal of Agricultural and Food Chemistry* **51**:6598-6603.
- Kapelko M., Zieba, T., Golachowski, A. dan Gryzkin, A. (2012a). Effect of the production method on the properties of RS3/RS4 type resistant starch. Part 1: Properties of retrograded starch (RS3) produced under variation conditions and its susceptibility to acetylation. *Food Chemistry* **135**:1494-1504.
- Kapelko M., Zieba, T. dan Milchalski, A. (2012b). Effect of the production method on the properties of RS3/RS4 type resistant starch. Part 2: Effect of a degree of substitution on the selected properties of acylated retrograded starch. *Food Chemistry* **135**:2035-2042.
- Karim, A.A., Norziah, M.H. dan Seow, C.C. (2000). Review: Methods for the study of starch retrogradation. *Food Chemistry* **71**:9-36.
- Kawai, K., Takato, S., Sasaki, T. dan Kajiwar, K. (2012). Complex formation, thermal properties, and in-vitro digestibility of gelatinized potato starch-fatty acid mixtures. *Food Hydrocolloids* **27**:228-234.
- Kumar, S.N. (2011). Variability in coconut (*Cocos nucifera* L.) germplasm and hybrids for fatty acid profile of oil. *Journal of Agricultural and Food Chemistry* **59**:13050-13058.
- Laureles, L.R., Rodriguez, F.M., Reaño, C.E., Santos, G.A., Laurena, A.C. dan Mendoza, E.M.T. (2002). Variability in fatty acid and triacylglycerol composition of the oil of coconut (*Cocos nucifera* L.) hybrids and their parentals. *Journal of Agricultural and Food Chemistry* **50**:1581-1586.
- Laurentín, A., Cárdenas, M., Ruales, J., Pérez, E. dan Tovar, J. (2003). Preparation of indigestible pyrodextrins from different starch sources. *Journal of Agricultural and Food Chemistry* **50**:5510-5515.

- Lawal, O.S., Iqbal, R., Bellich, B., Olayiwola, T.O., Cesàro, A., Yoshimura, M. dan Nishinari, K. (2011). Rheology and functional properties of starches isolated from five improved rice samples from West Africa. *Food Hydrocolloids* **25**:1785-1792.
- Leeman, A.M., Karlsson, M.E., Eliasson, A.-C. dan Björck, I.M.E. (2006). Resistant starch formation in temperature treated potato starches varying in amylose/amylopectin ratio. *Carbohydrate Polymers* **65**:306-313.
- Li, S., Ward, R. dan Gao, Q. (2011). Effect of heat-moisture treatment on the formation and physicochemical properties of resistant starch from mung bean (*Phaseolus radiatus*) starch. *Food Hydrocolloids* **25**:1702-1709.
- Lumduwong, N. dan Seib, P.A. (2000). Rice starch isolation by alkaline protease digestion of wet-milled rice flour. *Journal of Cereal Science* **31**:63-74.
- Maduko, C.O., Park, Y.W. dan Akoh, C.C. (2008). Characterization and oxidative stability of structured lipids: Infant milk fat analog. *Journal of American Chemical Society* **85**:197-204.
- Marsono, Y. (1998). Review: *Resistant starch*: Pembentukan, metabolisme dan aspek Gizinya. *Agritech* **18**:29-35.
- Marsono, Y. (2002). Indeks glikemik umbi-umbian. *Agritech* **22**:13-16.
- Marsono, Y. dan Topping, D.L. (1993). Complex carbohydrates in Australian rice products – influence of microwave cooking and food processing. *Food Science and Technology* **26**:364-370.
- Mulyaningsih, M.F.S. dan Fatarina, E. (2004). Pembuatan minyak kelapa dari santan dengan asam cuka sebagai pengendap protein. *Prosiding Seminar Nasional dan Rekayasa Kimia dan Proses*. Jurusan Teknik Kimia Fakultas Teknik Universitas Diponegoro Semarang **G(19)**:1-5.
- Nebesny, E., Karolak, K.I. dan Kaczmarek, R.J. (2005). Dependence of thermodynamic characteristics of amylose-lipid complex dissociation on a sample of wheat. *Starch/Stärke* **57**:378-383.
- Palav, T. dan Seetharaman, K. (2007). Impact of microwave heating on the physico-chemical properties of a starch-water model system. *Carbohydrate Polymers* **67**:596-604.
- Park, E.Y., Baik, B.K. dan Lim, S.T. (2009). Influences of temperature-cycled storage on retrogradation and in vivo digestibility of waxy maize starch gel. *Journal of Cereal Science* **50**:43-48.

- Peamprasart, T. dan Chiewchan, N. (2006). Effect of fat content and preheat treatment on the apparent viscosity of coconut milk after homogenization. *Journal of Food Engineering* **77**:653-658.
- Pinkrová, J., Hubáčková, B., Kadlec, P., Přihoda, J. dan Bubník, Z. (2003). Changes of starch during microwave treatment of rice. *Czech Journal of Food Sciences* **21**:176-184.
- Putseys, J.A., Lamberts, L. dan Delcour, J.A. (2010). Review: Amylose-inclusion complexes: Formation, identity, and physico-chemical properties. *Journal of Cereal Science* **51**:238-247.
- Raghavendra, S.N. dan Raghavarao, K.S.M.S. (2010). Effect of different treatments for the destabilization of coconut milk emulsion. *Journal of Food Engineering* **97**:341-347.
- Rewthong, O., Sopononnarit, S., Taechapairoj, C., dan Tungtrakul, P. (2011). Effects of cooking, drying and pretreatment methods on texture and starch digestibility of instant rice. *Journal of Food Engineering* **103**:258-264.
- Rubio, A.L., Flanagan, B.M., Shrestha, A.K., Gidley, M.J. dan Gilbert, E.P. (2008). Molecular rearrangement of starch during in vitro digestion: Toward a better understanding of enzyme resistant starch formation in processed starches. *Biomacromolecules* **9**:1951-1958.
- Sagum, R. dan Arcot, J. (2000). Effect of domestic processing methods on the starch, non-starch polysaccharides and in vitro starch and protein digestibility of three samples of rice with varying levels of amylose. *Food Chemistry* **70**:107-111.
- Sajilata, M.G., Singhal, R.S. dan Kulkarni, P.R. (2006). Resistant starch – a review. *Comprehensive Reviews in Food Science and Food Safety* **5**:1-17.
- Schulz, H. dan Baranska, M. (2007). Review: Identification and quantification of valuable plant substances by IR and Raman spectroscopy. *Vibrational Spectroscopy* **43**:13-25.
- Shamai, K., Bianco-Peled, H. dan Shimoni, E. (2003). Polymorphism of resistant starch type III. *Carbohydrate Polymers* **54**:363-369.
- Siddhuraju, P. dan Becker, K. (2005). Nutritional and antinutritional composition, in vitro amino acid availability, starch digestibility and predicted glycemic index of differentially processed mucuna beans (*Mucuna pruriens* var. *utilis*): an under-utilised legume. *Food Chemistry* **91**:275-286.

- Sievert, D. dan Pomeranz, Y. (1989). Enzyme-resistant starch. I. Characterization and evaluation by enzymatic, thermoanalytical and microscopic methods. *Cereal Chemistry* **66**:342-347.
- Silalahi, J. dan Nurbaya, S. (2011). Komposisi, distribusi, dan sifat aterogenik asam lemak dalam minyak kelapa dan kelapa sawit. *Journal of Indonesian Medical Association* **61**:453-457.
- Simuang, J., Chiewchan, N. dan Tansakul, A. (2004). Effect of fat content and temperature on the apparent viscosity of coconut milk. *Journal of Food Engineering* **64**:193-197.
- Singh, N., Kaur, L., Sodhi, N.S. dan Sekhon, K.S. (2005). Physicochemical, cooking and textural properties of milled rice from different Indian rice cultivars. *Food Chemistry* **89**:253-259.
- Singh, N., Kaur, L., Sandhu, K.S., Kaur, J. dan Nishinari, K. (2006). Relationship between physicochemical, morphological, thermal, rheological properties of rice starches. *Food Hydrocolloids* **20**:532-542.
- Singh, J., Dartois, A. dan Kaur, L. (2010). Starch digestibility in food matrix: a review. *Trends in Food Science and Technology* **21**:168-180.
- Smits, A.L.M., Ruhnau, F.C., Vliegenthart, J.F.G., Utrecht dan van Soest, J.J.G. (1998). Ageing of starch based systems as observed with FT-IR and solid state NMR spectroscopy. *Starch/Stärke* **50**:478-483.
- Sodhi, N.S. dan Singh, N. (2003). Morphological, thermal and rheological properties of starches separated from rice cultivars grown in India. *Food Chemistry* **80**:99-108.
- Srihari, E., Lingganingrum, F.S., Hervita, R. dan Wijaya, H. (2010). Pengaruh penambahan maltodektrin pada pembuatan santan kelapa bubuk. *Prosiding Seminar Nasional Rekayasa Kimia dan Proses*. Jurusan Teknik Kimia Fakultas Teknik Universitas Diponegoro Semarang **A(18)**:1-7.
- Syahriza, Z.A., Sar, S., Hasjim, J., Tizzotti, M.J. dan Gilbert, R.G. (2013). The importance of amylose and amylopectin fine structures for starch digestibility in cooked rice grains. *Food Chemistry* **136**:742-749.
- Tang, H., Mitsunaga, T. dan Kawamura, Y. (2006). Molecular arrangement in blocklets and starch granule architecture. *Carbohydrate Polymers* **63**:555-560.
- Tansakul, A. dan Chaisawang, P. (2006). Thermo physical properties of coconut milk. *Journal of Food Engineering* **73**:276-280.



- Tester, R.F., Karkalas, J. dan Qi, J. (2004). Review starch – Composition, fine structure, and architecture. *Journal of Cereal Science* **39**:151-165.
- Themeier, H., Hollman, J., Neese, U. dan Lindhauer, M.G. (2005). Structural and morphological factors influencing the quantification of resistant starch II in starches of different botanical origin. *Carbohydrate Polymers* **61**:72-79.
- Thygesen, L.G., Løkke, M.M., Micklander, E. dan Engelsen, S.B. (2003). Vibrational microspectroscopy of food. Raman vs FT-IR. *Trends in Food Science & Technology* **14**:50-57.
- Tian, Y., Yang, N., Li, Y., Xu, X., Zhan, J. dan Jin, Z. (2010). Potential interaction between  $\beta$ -cyclodextrin and amylose-lipida complex in retrograded rice starch. *Carbohydrate Polymers* **80**:582-585.
- Tuminah, S. (2009). Efek asam lemak jenuh dan asam lemak tak jenuh “trans” terhadap kesehatan. *Media Penelitian dan Pengembangan Kesehatan* **XIX**:S13-S20.
- Vatanasuchart, N., Niyomwit, B. dan Wongkrajang, K. (2009). Resistant starch contents and the *in vitro* starch digestibility of Thai starchy foods. *Kasetsart Journal National Science* **43**:178-186.
- Wani, A.A., Singh, P., Shah, M.A., Schweiggert-Weisz, U., Gul, K. dan Wani, I.A. (2012). Rice starch diversity: Effect on structural, morphological, thermal, and physicochemical properties – a Review. *Comprehensive Reviews in Food Science and Food Safety* **11**:417-436.
- Widowati, S., Astawan, M., Muctadi, D. dan Wresdiyati, T. (2006). Hypoglycemic activity of some Indonesian rice samples and their physicochemical properties. *Indonesian Journal of Agricultural Science* **7**:57-66.
- Yu, S., Ma, Y., Menager, L. dan Sun, D.-W. (2012). Physicochemical properties of starch and flour from different rice cultivars. *Food Bioprocess Technology* **5**:626-637.
- Zabar, S., Lesmes, U., Katz, I., Shimoni, E. dan Peled, B.H. (2009). Studying different dimensions of amylose-long chain fatty acid complexes: Molecular, nano, and micro level characteristics. *Food Hydrocolloids* **23**:1918-1925.
- Zaragoza, F.E., Navarrete, R.M.J., Zapata, S.E. dan Álvarez, P. (2010). Resistant starch as functional ingredient: a Review. *Food Research International* **43**:931-942.



- Zhang, P., Whistler, R.L., BeMiller, J.N. dan Hamaker, B.R. (2005). Banana starch: Production, physicochemical properties, and digestibility. *Carbohydrate Polymers* **59**:443-458.
- Zhang, W., Bi, J., Yan, X., Wang, H., Zhu, C., Wang, J. dan Wan, J. (2007). In vitro measurement of resistant starch of cooked milled rice and physicochemical characteristics affecting its formation. *Food Chemistry* **105**:462-468.
- Zhang, J. dan Wang, Z.W. (2009). Optimization of reactions conditions for resistant *Canna edulis* Ker. starch phosphorylation and its structural characterization. *Industrial Crops and Products* **30**:105-113.
- Zhang, J., Chen, F., Liu, F. dan Wang, Z.W. (2010). Study on structural changes of microwave heat-moisture treated resistant *Canna edulis* Ker. starch during digestion in vitro. *Food Hydrocolloids* **24**:27-34.
- Zhang, B., Huang, Q., Luo, F-X. dan Fu, X. (2012). Structural characterizations and digestibility of debranched high-amylose maize starch complexed with lauric acid. *Food Hydrocolloids* **28**:174-181.
- Zhao, J., Schols, H.A., Chen, Z., Jin, Z., Buwalda, P. dan Gruppen, H. (2012). Substituent distribution within cross-linked and hydroxypropylated sweet potato starch and potato starch. *Food Chemistry* **133**:1333-1340.
- Zhou, Z., Robards, K., Helliwell, S. dan Blanchard, C. (2002). Review: Composition and functional properties of rice. *International Journal of Food Science and Technology* **37**:849-868.
- Zhou, Z., Robards, K., Helliwell, S. dan Blanchard, C. (2007). Effect of the addition of fatty acids on rice starch properties. *Food Research International* **40**:209-214.
- Zhu, L.J., Liu, Q.Q., Wilson, J.D., Gu, M.M. dan Shi, Y.C. (2011). Digestibility and physicochemical properties of rice (*Oryza sativa* L.) flours and starches differing in amylose content. *Carbohydrate Polymers* **86**:1751-1759.