

## TÀI LIỆU THAM KHẢO

### Tài liệu tiếng việt

Thị, Đ., Linh, M., Thị, N., Mai, Q., Thị, Đ., Tuyên, H., & Phương, N. (2017). KHẢO SÁT QUÁ TRÌNH TẠO CHẾ PHẨM BROMELAIN DẠNG BỘT TỪ PHỤ PHẨM THƠM. In *Tạp chí Khoa học công nghệ và Thực phẩm* (Vol. 12, Issue 1).

Thọ, N. P. (n.d.). NGHIÊN CỨU THU NHẬN ENZYME BROMELAIN THỎ TỪ CHỒI NGỌN THƠM (ANANAS COMOSUS) TÓM TẮT. In *An Giang University Journal of Science-2018* (Vol. 21, Issue 3).

### Tài liệu tiếng anh

Schlmer, P., Janja1, ~ A, E5per, 5m17a8h1ndu, R., & M~hl8auer, W. (1996). *EXPERIMENTAL INVE5716A710N OF 7HE PERFORMANCE OF 7HE 50LAR 7UNNEL DRYER FOR DRYIN6 8ANANA5* (Issue 95).

Abadio, F. D. B., Domingues, A. M., Borges, S. V., & Oliveira, V. M. (2004). Physical properties of powdered pineapple (Ananas comosus) juice—effect of malt dextrin concentration and atomization speed. *Journal of Food Engineering*, 64(3), 285–287. <https://doi.org/10.1016/j.jfoodeng.2003.10.010>

Amir, E. J., Grandegger, K., Esper, ~ A, Sumarsono, + M, Djaya, ~ C, & Muhlbauer, W. (1991). *DEVELOPMENT OF A MULTI-PURPOSE SOLAR TUNNEL DRYER FOR USE IN HUMID TROPICS* (Vol. 1, Issue 2).

Barbosa-Cánovas, G. V., & Juliano, P. (2005). Physical and Chemical Properties of Food Powders. In *Encapsulated and Powdered Foods*. CRC Press.

Beera, V. (n.d.). *Physicochemical Characteristics of Pomegranate and Pineapple Juice Modelling of Water Resources and Water Productivity in Gudlakamma sub basin for Hydrological Sustainability View project Post graduate project View project*. <https://www.researchgate.net/publication/348835633>

Bhandari, B. R., Datta, N., & Howes, T. (1997). Problems associated with spray drying of sugar-rich foods. *Drying Technology*, 15(2), 671–684. <https://doi.org/10.1080/07373939708917253>

Bhandari, B. R., Datta, N., & Howes, T. (1997). Problems associated with spray drying of sugar-rich foods. *Drying Technology*, 15(2), 671–684. <https://doi.org/10.1080/07373939708917253>

Bhandari, B. R., Senoussi, A., Dumoulin, E. D., & Lebert, A. (1993). Spray Drying of Concentrated Fruit Juices. In *Drying Technology* (Vol. 11, Issue 5, pp. 1081–1092). <https://doi.org/10.1080/07373939308916884>

Brand-Williams, W., Cuvelier, M. E., & Berset, C. (1995). *Use of a Free Radical Method to Evaluate Antioxidant Activity* (Vol. 28).

Brand-Williams, W., Cuvelier, M. E., & Berset, C. (1995). *Use of a Free Radical Method to Evaluate Antioxidant Activity* (Vol. 28).

Brennan, J. G., & CHAMPHELL-PLATT, G. (1994). *FOOD DEHYDRATION: DICTIONARY AND GUIDE*.

Buera, M. D. P., Chirife, J., Resnik, S. L., & Lozano, R. D. (1987). Nonenzymatic browning in liquid model systems of high water activity: Kinetics of color changes due to caramelization of various single sugars. *Journal of Food Science*, 52(4), 1059–1062

Caliskan, G., & Nur Dirim, S. (2013). The effects of the different drying conditions and the amounts of maltodextrin addition during spray drying of sumac extract. *Food and Bioproducts Processing*, 91(4), 539–548. <https://doi.org/10.1016/j.fbp.2013.06.004>

Cano-Chauca, M., Stringheta, P. C., Ramos, A. M., & Cal-Vidal, J. (2005). Effect of the carriers on the microstructure of mango powder obtained by spray drying and its functional characterization. *Innovative Food Science and Emerging Technologies*, 6(4), 420–428. <https://doi.org/10.1016/j.ifset.2005.05.003>

Caparino, O. A., Tang, J., Nindo, C. I., Sablani, S. S., Powers, J. R., & Fellman, J. K. (2012). Effect of drying methods on the physical properties and microstructures of mango (Philippine “Carabao” var.) powder. *Journal of Food Engineering*, 111(1), 135–148. <https://doi.org/10.1016/j.jfoodeng.2012.01.010>

Caparino, O. A., Tang, J., Nindo, C. I., Sablani, S. S., Powers, J. R., & Fellman, J. K. (2012). Effect of drying methods on the physical properties and microstructures of mango (Philippine “Carabao” var.) powder. *Journal of Food Engineering*, *111*(1), 135–148. <https://doi.org/10.1016/j.jfoodeng.2012.01.010>

Caparino, O. A., Tang, J., Nindo, C. I., Sablani, S. S., Powers, J. R., & Fellman, J. K. (2012). Effect of drying methods on the physical properties and microstructures of mango (Philippine “Carabao” var.) powder. *Journal of Food Engineering*, *111*(1), 135–148. <https://doi.org/10.1016/j.jfoodeng.2012.01.010>

Chew, K. K., Khoo, M. Z., Ng, S. Y., Thoo, Y. Y., Aida, W. W. M., & Ho, C. W. (2011). Effect of ethanol concentration, extraction time and extraction temperature on the recovery of phenolic compounds and antioxidant capacity of *Orthosiphon stamineus* extracts. *International Food Research Journal*, *18*(4), 1427–1435. <https://www.proquest.com/docview/927983440/citation/CAE3F54B3AF04DEDPQ/1>

Chiou, D., & Langrish, T. A. G. (2007). Development and characterisation of novel nutraceuticals with spray drying technology. *Journal of Food Engineering*, *82*(1), 84–91. <https://doi.org/10.1016/j.jfoodeng.2007.01.021>

Chong, S. Y., & Wong, \*. (2017). Effect of spray dryer inlet temperature and maltodextrin concentration on colour profile and total phenolic content of Sapodilla (*Manilkara zapota*) powder. In *Journal homepage. 1, Jalan Menara Gading* (Vol. 24, Issue 6).

Demarchi, S. M., Quintero Ruiz, N. A., Concellón, A., & Giner, S. A. (2013). Effect of temperature on hot-air drying rate and on retention of antioxidant capacity in apple leathers. *Food and Bioproducts Processing*, *91*(4), 310–318. <https://doi.org/10.1016/j.fbp.2012.11.008>

Dorner, J. W. (2008). Relationship Between Kernel Moisture Content and Water Activity in Different Maturity Stages of Peanut. *Peanut Science*, *35*(2), 77–80. <https://doi.org/10.3146/PS07-101.1>

Dorner, J. W. (n.d.). *Relationship Between Kernel Moisture Content and Water Activity in Different Maturity Stages of Peanut* (Vol. 35).

Dorta, E., Lobo, M. G., & González, M. (2012). Using drying treatments to stabilise mango peel and seed: Effect on antioxidant activity. *LWT*, *45*(2), 261–268. <https://doi.org/10.1016/j.lwt.2011.08.016>

Fang, Z., & Bhandari, B. (2011). Effect of spray drying and storage on the stability of bayberry polyphenols. *Food Chemistry*, *129*(3), 1139–1147. <https://doi.org/10.1016/j.foodchem.2011.05.093>

Ferrari, C. C., Germer, S. P. M., Alvim, I. D., Vissotto, F. Z., & de Aguirre, J. M. (2012). Influence of carrier agents on the physicochemical properties of blackberry powder produced by spray drying. *International Journal of Food Science and Technology*, *47*(6), 1237–1245. <https://doi.org/10.1111/j.1365-2621.2012.02964.x>

Fongin, S., Alvino Granados, A. E., Harnkarnsujarit, N., Hagura, Y., & Kawai, K. (2019). Effects of maltodextrin and pulp on the water sorption, glass transition, and caking properties of freeze-dried mango powder. *Journal of Food Engineering*, *247*, 95–103. <https://doi.org/10.1016/j.jfoodeng.2018.11.027>

Fратиanni, A., Adiletta, G., Di Matteo, M., Panfili, G., Niro, S., Gentile, C., Farina, V., Cinquanta, L., & Corona, O. (2020b). Evolution of carotenoid content, antioxidant activity and volatiles compounds in dried mango fruits (*Mangifera Indica* L.). *Foods*, *9*(10), 1424.

Gabas, A. L., Telis, V. R. N., Sobral, P. J. A., & Telis-Romero, J. (2007). Effect of maltodextrin and arabic gum in water vapor sorption thermodynamic properties of vacuum dried pineapple pulp powder. *Journal of Food Engineering*, *82*(2), 246–252. <https://doi.org/10.1016/j.jfoodeng.2007.02.029>

Grabowski, J. A., Truong, V. D., & Daubert, C. R. (2006). Spray-drying of amylase hydrolyzed sweetpotato puree and physicochemical properties of powder. *Journal of Food Science*, *71*(5). <https://doi.org/10.1111/j.1750-3841.2006.00036.x>

Intipunya, P., & Bhandari, B. R. (2010). Chemical deterioration and physical instability of food powders. In *Chemical Deterioration and Physical Instability of Food and Beverages* (pp. 663–700). Elsevier Inc. <https://doi.org/10.1533/9781845699260.3.663>

Jaya, S., & Das, H. (2004). Effect of maltodextrin, glycerol monostearate and tricalcium phosphate on vacuum dried mango powder properties. *Journal of Food Engineering*, 63(2), 125–134. [https://doi.org/10.1016/S0260-8774\(03\)00135-3](https://doi.org/10.1016/S0260-8774(03)00135-3)

Kerkhofs, N. S., Lister, C. E., & Savage, G. P. (2005). Change in colour and antioxidant content of tomato cultivars following forced-air drying. *Plant Foods for Human Nutrition*, 60(3), 117–121. <https://doi.org/10.1007/s11130-005-6839-8>

Kha, T. C., Nguyen, M. H., & Roach, P. D. (2010). Effects of spray drying conditions on the physicochemical and antioxidant properties of the Gac (*Momordica cochinchinensis*) fruit aril powder. *Journal of Food Engineering*, 98(3), 385–392. <https://doi.org/10.1016/j.jfoodeng.2010.01.016>

Mahendran, T. (n.d.). *PHYSICO-CHEMICAL PROPERTIES AND SENSORY CHARACTERISTICS OF DEHYDRATED GUAVA CONCENTRATE: EFFECT OF DRYING METH-OD AND MALTODEXTRIN CONCENTRATION*.

Marques, L. G., Ferreira, M. C., & Freire, J. T. (2007). Freeze-drying of acerola (*Malpighia glabra* L.). *Chemical Engineering and Processing: Process Intensification*, 46(5), 451–457. <https://doi.org/10.1016/j.cep.2006.04.011>

Mary Clegg, B. K., & Morton, A. D. (1961). Pyrethrum Flowers. In *J. Sci. Fd A* & (Vol. 13, Issue 6). Cambridge University Press.

Mercadante, A. Z., & Rodriguez-Amaya, D. B. (1998). *Effects of Ripening, Cultivar Differences, and Processing on the Carotenoid Composition of Mango*.

Mercadante, A. Z., & Rodriguez-Amaya, D. B. (1998). *Effects of Ripening, Cultivar Differences, and Processing on the Carotenoid Composition of Mango*.

Mercadante, A. Z., & Rodriguez-Amaya, D. B. (1998). *Effects of Ripening, Cultivar Differences, and Processing on the Carotenoid Composition of Mango*.

Miao, S., & Roos, Y. H. (2004). Comparison of Nonenzymatic Browning Kinetics in Spray-dried and Freeze-dried Carbohydrate-based Food Model Systems. *Journal of Food Science*, 69(7), 322–331. <https://doi.org/10.1111/j.1365-2621.2004.tb13637.x>

Miranda, M., Maureira, H., Rodríguez, K., & Vega-Gálvez, A. (2009). Influence of temperature on the drying kinetics, physicochemical properties, and antioxidant capacity of Aloe Vera (*Aloe Barbadensis* Miller) gel. *Journal of Food Engineering*, *91*(2), 297–304. <https://doi.org/10.1016/j.jfoodeng.2008.09.007>

Nakthong, N., Wongsagonsep, R., & Amornsakchai, T. (2017). Characteristics and potential utilizations of starch from pineapple stem waste. *Industrial Crops and Products*, *105*, 74–82. <https://doi.org/10.1016/j.indcrop.2017.04.048>

Nguyen, T. V. L., Nguyen, Q. D., Nguyen, P. B. D., Tran, B. L., & Huynh, P. T. (2020). Effects of drying conditions in low-temperature microwave-assisted drying on bioactive compounds and antioxidant activity of dehydrated bitter melon (*Momordica charantia* L.). *Food Science and Nutrition*, *8*(7), 3826–3834. <https://doi.org/10.1002/fsn3.1676>

Osorio, C., Forero, D. P., & Carriazo, J. G. (2011). Characterisation and performance assessment of guava (*Psidium guajava* L.) microencapsulates obtained by spray-drying. *Food Research International*, *44*(5), 1174–1181. <https://doi.org/10.1016/j.foodres.2010.09.007>

Osorio, C., Forero, D. P., & Carriazo, J. G. (2011). Characterisation and performance assessment of guava (*Psidium guajava* L.) microencapsulates obtained by spray-drying. *Food Research International*, *44*(5), 1174–1181. <https://doi.org/10.1016/j.foodres.2010.09.007>

Oszmianski, J., & Lee, C. Y. (1990). Enzymic oxidative reaction of catechin and chlorogenic acid in a model system. *Journal of Agricultural and Food Chemistry*, *38*(5), 1202–1204.

Potter, N. N., & Hotchkiss, J. H. (2012). *Food Science: Fifth Edition*. Springer Science & Business Media.

Prasath, D., Kandiannan, K., Leela, N. K., Aarthi, S., Sasikumar, B., & Nirmal Babu, K. (2019). *3 Turmeric: Botany and Production Practices*.

Que, F., Mao, L., Fang, X., & Wu, T. (2008). Comparison of hot air-drying and freeze-drying on the physicochemical properties and antioxidant activities of pumpkin

(*Cucurbita moschata* Duch.) flours. *International Journal of Food Science & Technology*, 43(7), 1195–1201.

Quek, S. Y., Chok, N. K., & Swedlund, P. (2007). The physicochemical properties of spray-dried watermelon powders. *Chemical Engineering and Processing: Process Intensification*, 46(5), 386–392. <https://doi.org/10.1016/j.cep.2006.06.020>

Quintero Ruiz, N. A., Demarchi, S. M., Massolo, J. F., Rodoni, L. M., & Giner, S. A. (2012). Evaluation of quality during storage of apple leather. *LWT*, 47(2), 485–492. <https://doi.org/10.1016/j.lwt.2012.02.012>

Quintero Ruiz, N. A., Demarchi, S. M., Massolo, J. F., Rodoni, L. M., & Giner, S. A. (2012). Evaluation of quality during storage of apple leather. *LWT*, 47(2), 485–492. <https://doi.org/10.1016/j.lwt.2012.02.012>

Rahman, A., Sungai Long, J., Sungai Long, B., & Darul Ehsan, S. (2015). Drying characteristics and quality evaluation of kiwi slices under hot air natural convective drying method. In *International Food Research Journal* (Vol. 22, Issue 6).

Renard, C. M., Baron, A., Guyot, S., & Drilleau, J.-F. (2001). Interactions between apple cell walls and native apple polyphenols: Quantification and some consequences. *International Journal of Biological Macromolecules*, 29(2), 115–125.

Sarkar, T., Salauddin, M., Hazra, S. K., & Chakraborty, R. (2020). Effect of cutting edge drying technology on the physicochemical and bioactive components of mango (Langra variety) leather. *Journal of Agriculture and Food Research*, 2, 100074.

Schebor, C., Â del Pilar Buera, M., Karel, M., & Chirife, J. (n.d.). *Color formation due to non-enzymatic browning in amorphous, glassy, anhydrous, model systems*.

Shaari, N. A., Sulaiman, R., Rahman, R. A., & Bakar, J. (2018). Production of pineapple fruit (*Ananas comosus*) powder using foam mat drying: Effect of whipping time and egg albumen concentration. *Journal of Food Processing and Preservation*, 42(2). <https://doi.org/10.1111/jfpp.13467>

Stringheta, P. (n.d.). *MANGO JUICE DEHYDRATION SPRAY DRYING USING DIFFERENT CARRIERS AND FUNCTIONAL CHARACTERIZATION*. <https://www.researchgate.net/publication/237276646>

Sudha, M. L., Indumathi, K., Sumanth, M. S., Rajarathnam, S., & Shashirekha, M. N. (2015). Mango pulp fibre waste: characterization and utilization as a bakery product ingredient. *Journal of Food Measurement and Characterization*, 9(3), 382–388. <https://doi.org/10.1007/s11694-015-9246-3>

Tan, L. W., Ibrahim, Mohd. N., Kamil, R., & Taip, F. S. (2011). Empirical modeling for spray drying process of sticky and non-sticky products. *Procedia Food Science*, 1, 690–697. <https://doi.org/10.1016/j.profoo.2011.09.104>

Tien, P. G., Kayama, F., Konishi, F., Tamemoto, H., Kasono, K., Hung, N. T. K., Kuroki, M., Ishikawa, S.-E., Van, C. N., & Kawakami, M. (2005). Inhibition of tumor growth and angiogenesis by water extract of Gac fruit (*Momordica cochinchinensis* Spreng). *International Journal of Oncology*, 26(4), 881–889. <https://doi.org/10.3892/ijo.26.4.881>

Tomás-Barberán, F. A., & Espín, J. C. (2001). Phenolic compounds and related enzymes as determinants of quality in fruits and vegetables. *Journal of the Science of Food and Agriculture*, 81(9), 853–876. <https://doi.org/10.1002/jsfa.885>

Tonon, R. v., Brabet, C., & Hubinger, M. D. (2010). Anthocyanin stability and antioxidant activity of spray-dried açai (*Euterpe oleracea* Mart.) juice produced with different carrier agents. *Food Research International*, 43(3), 907–914. <https://doi.org/10.1016/j.foodres.2009.12.013>

Tonon, R. V., Brabet, C., & Hubinger, M. D. (2010a). Anthocyanin stability and antioxidant activity of spray-dried açai (*Euterpe oleracea* Mart.) juice produced with different carrier agents. *Food Research International*, 43(3), 907–914. <https://doi.org/10.1016/j.foodres.2009.12.013>

Tonon, R. V., Brabet, C., & Hubinger, M. D. (2010b). Anthocyanin stability and antioxidant activity of spray-dried açai (*Euterpe oleracea* Mart.) juice produced with different carrier agents. *Food Research International*, 43(3), 907–914. <https://doi.org/10.1016/j.foodres.2009.12.013>

Tontul, I., & Topuz, A. (2017). Effects of different drying methods on the physicochemical properties of pomegranate leather (pestil). *LWT*, 80, 294–303. <https://doi.org/10.1016/j.lwt.2017.02.035>

Topuz, A., Feng, H., & Kushad, M. (2009). The effect of drying method and storage on color characteristics of paprika. *LWT-Food Science and Technology*, 42(10), 1667–1673

Uddin', M. S., Hawlader<sup>2</sup>, M. N. A., Ridge, K., & Rahman, M. S. (1990). EVALUATION OF DRYING CHARACTERISTICS OF PINEAPPLE IN THE PRODUCTION OF PINEAPPLE POWDER. In *Journal of Food Processing and Preservation* (Vol. 14).

Vega-Gálvez, A., di Scala, K., Rodríguez, K., Lemus-Mondaca, R., Miranda, M., López, J., & Perez-Won, M. (2009). Effect of air-drying temperature on physico-chemical properties, antioxidant capacity, colour and total phenolic content of red pepper (*Capsicum annuum*, L. var. Hungarian). *Food Chemistry*, 117(4), 647–653. <https://doi.org/10.1016/j.foodchem.2009.04.066>

Velić, D., Planinić, M., Tomas, S., & Bilić, M. (2004). Influence of airflow velocity on kinetics of convection apple drying. *Journal of Food Engineering*, 64(1), 97–102. <https://doi.org/10.1016/j.jfoodeng.2003.09.016>

Vuong, L. T., Dueker, S. R., & Murphy, S. P. (2002). Plasma  $\beta$ -carotene and retinol concentrations of children increase after a 30-d supplementation with the fruit *Momordica cochinchinensis* (gac). *The American Journal of Clinical Nutrition*, 75(5), 872–879. <https://doi.org/10.1093/ajcn/75.5.872>

Wong, D. W. (2006). Feruloyl esterase. *Applied Biochemistry and Biotechnology*, 133(2), 87–112.

## PHỤ LỤC – KẾT QUẢ PHÂN TÍCH ANOVA

**Ảnh hưởng của maltodextrin lên tính chất hóa học của bột thơm ứng dụng kỹ thuật sấy phun và sấy thăng hoa.**

### ANOVA

Polyphenol

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1137.162	6	189.527	783.453	.000
Within Groups	3.387	14	.242		
Total	1140.549	20			

### Polyphenol

Tukey HSD<sup>a</sup>

TPC	N	Subset for alpha = 0.05					
		1	2	3	4	5	6
M	3	21.1648					
MP20%	3		24.9558				
MP25%	3			28.6239			
MP30%	3			29.4981			
MT20%	3				36.5714		
MT25%	3					39.7692	
MT30%	3						42.6396
Sig.		1.000	1.000	.365	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**ANOVA**

DPPH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	86.496	6	14.416	1168.960	.000
Within Groups	.173	14	.012		
Total	86.669	20			

**DPPH**

Tukey HSD<sup>a</sup>

DPPH	N	Subset for alpha = 0.05				
		1	2	3	4	5
M	3	45.3205				
MP25%	3		46.8346			
MP30%	3		46.8462			
MP20%	3		46.9872			
MT30%	3			48.3974		
MT25%	3				50.3910	
MT20%	3					51.4744
Sig.		1.000	.637	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**ANOVA**

VitaminC

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.004	6	.001	333.447	.000
Within Groups	.000	14	.000		
Total	.004	20			

**VitaminC**

Tukey HSD<sup>a</sup>

VINC	N	Subset for alpha = 0.05				
		1	2	3	4	5
MT20%	3	.0606				
MT30%	3		.0660			
MT25%	3		.0685	.0685		
MP30%	3			.0701		
MP25%	3				.0765	
MP20%	3				.0775	
M	3					.1063
Sig.		1.000	.389	.774	.981	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**ANOVA**

DoAcid

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.148	6	.025	576.000	.000
Within Groups	.001	14	.000		
Total	.149	20			

**DoAcid**

Tukey HSD<sup>a</sup>

DOACID	N	Subset for alpha = 0.05		
		1	2	3
M5	3	.2033		
M2	3	.2033		
M3	3	.2033		
M6	3	.2100		
M1	3		.2533	
M4	3		.2533	
M0	3			.4533
Sig.		.864	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**Ảnh hưởng của maltodextrin lên tính chất vật lý của bột thơm ứng dụng kỹ thuật sấy phun và sấy thăng hoa.**

**ANOVA**

HieuSuatThuHoi

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	650.650	5	130.130	1541.621	.000
Within Groups	1.013	12	.084		
Total	651.663	17			

**Hieu SuatThuHoi**

Tukey HSD<sup>a</sup>

HIEUSUAT	N	Subset for alpha = 0.05				
		1	2	3	4	5
MP30%	3	1.9100				
MP25%	3		11.0333			
MP20%	3		11.4667			
MT20%	3			14.7433		
MT25%	3				18.3467	
MT30%	3					20.4867
Sig.		1.000	.485	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**ANOVA**

DopH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.423	6	.237	2263.121	.000
Within Groups	.001	14	.000		
Total	1.424	20			

**DopH**

Tukey HSD<sup>a</sup>

PH	N	Subset for alpha = 0.05		
		1	2	3
M	3	3.4633		
MP25%	3		4.1867	
MP20%	3		4.1967	
MT20%	3		4.2033	
MT25%	3		4.2033	
MT30%	3		4.2133	4.2133
MP30%	3			4.2333
Sig.		1.000	.074	.270

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**ANOVA**

DoHoaTan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.071	6	.012	75.277	.000
Within Groups	.002	14	.000		
Total	.074	20			

**DoHoaTan**

Tukey HSD<sup>a</sup>

DOHOATAN	N	Subset for alpha = 0.05		
		1	2	3
MT30%	3	.3224		
MT25%	3		.3653	
MP25%	3		.3775	
MP30%	3		.3843	
MT20%	3			.4702
MP20%	3			.4733
M	3			.4794
Sig.		1.000	.539	.967

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.