Doctorado en Ciencias en Desarrollo de Productos Bióticos

Relación de publicaciones
2013 - 2016

Nota:

Alumnos/egresados están subrayados
Integrantes del NAB en color según la LGAC
Colaboradores de instituciones del extranjero en negritas

LGAC 1: Estudio y aprovechamiento de biomoléculas

1. Agama-Acevedo E, Juárez-García E, Evangelista-Lozano S, Rosales-Reynoso OL, Bello-Pérez LA (2013) Characteristics of maize starch and relationship with its biosynthesis enzymes. Agrociencia 47 (1):1-12

2. Aila-Suárez S, Palma-Rodríguez HM, Rodríguez-Hernández AI, Hernández-Uribe JP, Bello-Pérez LA, Vargas-Torres A (2013) Characterization of films made with chayote tuber and potato starches blending with cellulose nanoparticles. Carbohydrate Polymers 98 (1):102-107. doi:10.1016/j.carbpol.2013.05.022

3. Almanza-Benitez S, Osorio-Díaz P, Méndez-Montealvo G, Islas-Hernández JJ, Bello-Perez LA (2015) Addition of acid-treated unripe plantain flour modified the starch digestibility, indigestible carbohydrate content and antioxidant capacity of semolina spaghetti. LWT - Food Science and Technology 62 (2):1127-1133. doi:10.1016/j.lwt.2015.02.031

4. Aparicio-Saguilán A, Aguirre-Cruz A, Méndez-Montealvo G, Rodriguez-Ambriz SL, Garcia-Suarez FJ, Páramo-Calderón DE, Bello-Pérez LA (2014) The effect of the structure of native banana starch from two varieties on its acid hydrolysis. LWT - Food Science and Technology 58 (2):381-386. doi:10.1016/j.lwt.2014.03.028

5. Aparicio-Saguilan A, Osorio-Díaz P, Agama-Acevedo E, Islas-Hernández JJ, Bello-Perez LA (2013) Tortilla added with unripe banana and cassava flours: Chemical composition and starch digestibility. CYTA - Journal of Food 11 (SUPPL.1):90-95. doi:10.1080/19476337.2012.760653

6. Aparicio-Saguilán A, Valera-Zaragoza M, Perucini-Avendaño M, Páramo-Calderón DE, Aguirre-Cruz A, Ramírez-Hernández A, Bello-Pérez LA (2015) Lintnerization of banana starch isolated from underutilized variety: Morphological, thermal, functional properties, and digestibility. CYTA - Journal of Food 13 (1):3-9. doi:10.1080/19476337.2014.902864

7. Bello-Pérez LA, Camelo-Mendez GA, Agama-Acevedo E, Utrilla-Coello RG (2016) Nutraceutic aspects of pigmented maize: Digestibility of carbohydrates and anthocyanins. Agrociencia 50 (8):1041-1063

8. Bello-Perez LA, Flores-Silva PC, Agama-Acevedo E, de Dios Figueroa-Cardenas J, Lopez-Valenzuela JA, **Campanella OH** (2014) Effect of the nixtamalization with calcium carbonate on the indigestible carbohydrate content and starch digestibility of corn tortilla. Journal of Cereal Science 60 (2):421-425. doi:10.1016/j.jcs.2014.05.001

9. Bello-Pérez LA, Flores-Silva PC, Camelo-Méndez GA, Paredes-López O, De Figueroa-Cárdenas JD (2015) Effect of the nixtamalization process on the dietary fiber content, starch digestibility, and antioxidant capacity of blue maize tortilla. Cereal Chemistry 92 (3):265-270. doi:10.1094/CCHEM-06-14-0139-R

10. Bello-Perez LA, Flores-Silva PC, Utrilla-Coello RG, Agama-Acevedo E, **Hamaker BR** (2015) In vitro starch digestibility of gluten-free spaghetti based on maize, chickpea, and unripe plantain flours. Cereal Chemistry 92 (2):171-176. doi:10.1094/CCHEM-06-14-0124-R

11. Camelo-Méndez GA, Agama-Acevedo E, Sanchez-Rivera MM, Bello-Pérez LA (2016) Effect on in vitro starch digestibility of Mexican blue maize anthocyanins. Food Chemistry 211:281-284. doi:10.1016/j.foodchem.2016.05.024

12. Camelo-Méndez GA, **Ferruzzi MG,** González-Aguilar GA, Bello-Pérez LA (2016) Carbohydrate and Phytochemical Digestibility in Pasta. Food Engineering Reviews 8 (1):76-89. doi:10.1007/s12393-015-9117-z

13. Carmona-García R, Bello-Pérez LA, Aguirre-Cruz A, Aparicio-Saguilán A, Hernández-Torres J, Alvarez-Ramirez J (2016) Effect of ultrasonic treatment on the morphological, physicochemical, functional, and rheological properties of starches with different granule size. Starch/Staerke 68 (9-10):972-979. doi:10.1002/star.201600019

14. Carrera Y, Utrilla-Coello R, Bello-Pérez A, Alvarez-Ramirez J, Vernon-Carter EJ (2015) In vitro digestibility, crystallinity, rheological, thermal, particle size and morphological characteristics of pinole, a traditional energy food obtained from toasted ground maize. Carbohydrate Polymers 123:246-255. doi:10.1016/j.carbpol.2015.01.044

15. Chávez-Murillo CE, Méndez-Montealvo G, **Wang YJ,** Bello-Pérez LA (2012) Starch of diverse Mexican rice cultivars: Physicochemical, structural, and nutritional features. Starch/Staerke 64 (9):745-756

16. Cordova-Albores LC, Rios MY, Barrera-Necha LL, Bautista-Baños S (2014) Chemical compounds of a native *Jatropha curcas* seed oil from Mexico and their antifungal effect on *Fusarium oxysporum* f. sp. gladioli. Industrial Crops and Products 62:166-172. doi:10.1016/j.indcrop.2014.08.005

17. De la Rosa-Millán J, Agama-Acevedo E, Osorio-Díaz P, Bello-Pérez LA (2014) Effect of cooking, annealing and storage on starch digestibility and physicochemical characteristics of unripe banana flour. Revista Mexicana de Ingeniera Química 13 (1):151-163

18. De La Rosa-Millan J, Lin AHM, Osorio-Diáz P, Agama-Acevedo E, **Hamaker BR,** Bello-Perez LA (2015) Influence of annealing flours from raw and pre-cooked plantain fruit on cooked starch digestion rates. Starch/Staerke 67 (1-2):139-146. doi:10.1002/star.201400136

19. Flores-Silva PC, Bello-Pérez LA, Rodriguez-Ambriz SL, Osorio-Diaz P (2017) In vitro colonic fermentation and glycemic response of high fiber gluten-free snacks in rats. Journal of Functional Foods 28:59-63. doi:http://dx.doi.org/10.1016/j.jff.2016.11.018

20. Flores-Silva PC, **Berrios JDJ,** Pan J, Osorio-Díaz P, Bello-Pérez LA (2014) Gluten-free spaghetti made with chickpea, unripe plantain and maize flours: Functional and chemical properties and starch digestibility. International Journal of Food Science and Technology 49 (9):1985-1991. doi:10.1111/ijfs.12529

21. Flores-Silva PC, Rodriguez-Ambriz SL, Bello-Pérez LA (2015) Gluten-Free Snacks Using Plantain-Chickpea and Maize Blend: Chemical Composition, Starch Digestibility, and Predicted Glycemic Index. Journal of Food Science 80 (5):C961-C966. doi:10.1111/1750-3841.12865

1. Gallegos Tintoré S, Torres Fuentes C, Solorza Feria J, Alaiz M, Girón Calle J, Martínez Ayala AL, Chel Guerrero L, **Vioque J** (2015) Antioxidant and chelating activity of nontoxic *Jatropha curcas* L. protein hydrolysates produced by in vitro digestion using pepsin and pancreatin. Journal of Chemistry 2015. doi:10.1155/2015/190129

22. Hernández-Jaimes C, Utrilla-Coello RG, Carrillo-Navas H, García-Márquez E, Meraz M, Bello-Pérez LA, Vernon-Carter EJ, Alvarez-Ramirez J (2014) Corn starch acid hydrolysis at the onset gelatinization temperature: Morphology, crystallinity, viscoelasticity, and thermal properties. Starch/Staerke 66 (7-8):636-644. doi:10.1002/star.201300215

23. Hernandez-Uribe JP, García-Suárez FJ, Gutiérrez-Meraz F, Rodriguez-Ambriz SL, Bello-Perez LA (2014) By-products derived of the starch isolation from tubers: Physicochemical and functional properties. Journal of Food, Agriculture and Environment 12 (1):43-46

24. Hoyos-Leyva JD, Bello-Pérez LA, Alvarez-Ramirez J, Agama-Acevedo E (2017) Structural characterization of aroid starches by means of chromatographic techniques. Food Hydrocolloids 69:97-102. doi:10.1016/j.foodhyd.2017.01.034

25. Hoyos-Leyva JD, Agama-Acevedo E, Bello-Perez LA, Vernon-Carter EJ, Alvarez-Ramirez J (2016) Assessing the structural stability of gluten-free snacks with different dietary fiber contents from adsorption isotherms. LWT - Food Science and Technology 73:576-583. doi:10.1016/j.lwt.2016.06.042

26. Hoyos-Leyva JD, Bello-Pérez LA, Agama-Acevedo E, Alvarez-Ramirez J (2015) Optimising the heat moisture treatment of Morado banana starch by response surface analysis. Starch/Staerke 67 (11-12):1026-1034. doi:10.1002/star.201500149

27. Juárez-García E, Agama-Acevedo E, Gómez-Montiel NO, Pando-Robles V, Bello-Pérez LA (2013) Proteomic analysis of the enzymes involved in the starch biosynthesis of maize with different endosperm type and characterization of the starch. Journal of the Science of Food and Agriculture 93 (11):2660-2668. doi:10.1002/jsfa.6054

28. Lara-Cortés E, Troncoso-Rojas R, Hernández-López M, Bautista-Baños S (2016) Evaluation of the antimicrobial activity of cinnamaldehyde in the preservation of edible dahlia flowers, under different storage conditions. Revista Chapingo, Serie Horticultura 22 (3):177-189. doi:10.5154/r.rchsh.2016.02.002

29. Lara-Cortés E, Sánchez E, García S, Heredia N, León–Rodríguez R, Barrera-Necha LL, Bautista-Baños S (2015) Morphological and physiological response of *Pantoea vagans* bacterium to four antimicrobial compounds. Acta Microscopica 24 (2):79-90

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31. Lara-Cortés E, Osorio-Díaz P, Jiménez-Aparicio A, Bautista-Baños S (2013) Nutritional content, functional properties and conservation of edible flowers. Review. Archivos Latinoamericanos de Nutrición 63 (3):197-208

32. Ortiz-Zarama MA, Jiménez-Aparicio AR, Lourenço RV, Amaral-Sobral PJ, Solorza-Feria J (2016) Rheological characterization of solutions of gelatin with bentonite and tannic acid. Revista Mexicana de Ingeniera Quimica 15 (3):819-830

33. Ortiz-Zarama MA, Jiménez-Aparicio A, Perea-Flores MJ, Solorza-Feria J (2014) Barrier, mechanical and morpho-structural properties of gelatin films with carbon nanotubes addition. Journal of Food Engineering 120 (1):223-232. doi:10.1016/j.jfoodeng.2013.08.004

34. Ortiz-Zarama MA, Jiménez-Aparicio AR, Solorza-Feria J (2016) Obtainment and partial characterization of biodegradable gelatin films with tannic acid, bentonite and glycerol. Journal of the Science of Food and Agriculture 96 (1) 3424-3431. doi:10.1002/jsfa.7524

35. Osorio-Diaz P, Utrilla-Coello RG, Flores-Silva PC, Bello-Perez LA (2014) Bakery Products of Unconventional Flours. In: Bakery Products Science and Technology: Second Edition. pp 619-638. doi:10.1002/9781118792001.ch36

36. Ovando-Martínez M., Guzmán-Maldonado S. H., Simsek S., Bello-Pérez L. A. and Osorio-Díaz P. 2014. Effect of water regimes on dietary fiber, polyphenols and antioxidant capacity of black and pinto beans. Agricultural Sciences, 5, 342-352.

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38. Palma-Rodriguez HM, Agama-Acevedo E, Gonzalez-Soto RA, Vernon-Carter EJ, Alvarez-Ramirez J, Bello-Perez LA (2013) Ascorbic acid microencapsulation by spray-drying in native and acid-modified starches from different botanical sources. Starch/Staerke 65 (7-8):584-592

39. Palma-Rodriguez HM, Agama-Acevedo E, Mendez-Montealvo G, Gonzalez-Soto RA, Vernon-Carter EJ, Bello-Pérez LA (2012) Effect of acid treatment on the physicochemical and structural characteristics of starches from different botanical sources. Starch/Staerke 64 (2):115-125

40. Palma-Rodríguez HM, Aguirre-Álvarez G, Chavarría-Hernández N, Rodríguez-Hernández AI, Bello-Pérez LA, Vargas-Torres A (2012) Oxidized banana starch-polyvinyl alcohol film: Partial characterization. Starch/Staerke 64 (11):882-889

2. Peralta-Flores L, Gallegos-Tintore S, Solorza-Feria J, Davila-Ortiz G, Chel-Guerrero L, Martinez-Ayala A (2012) Biochemical evaluation of protein fractions from physic nut (*Jatropha curcas* L.). Grasas y Aceites 63 (3):253-259

41. Rodríguez-Damian AR, De La Rosa-Millán J, Agama-Acevedo E, Osorio-Díaz P, Bello-Pérez LA (2013) Effect of different thermal treatments and storage on starch digestibility and physicochemical characteristics of unripe banana flour. Journal of Food Processing and Preservation 37 (5):987-998

42. Rodríguez-Marín ML, Alvarez-Ramírez J, Bello-Perez LA (2016) Influence of storage time on mechanical properties of films made with montmorillonite/flour (unripe banana and rice) blends. Revista Mexicana de Ingeniera Quimica 15 (2):433-439

43. Rodríguez-Marín ML, Bello-Pérez LA, Yee-Madeira H, Zhong Q, González-Soto RA (2013) Nanocomposites of rice and banana flours blend with montmorillonite: Partial characterization. Materials Science and Engineering C 33 (7):3903-3908. doi:10.1016/j.msec.2013.05.027

44. Sotelo-Boyás ME, Valverde-Aguilar G, Plascencia Jatomea M, Correa-Pacheco ZN, Jiménez Aparicio A, Solorza Feria J, Barrera Necha LL, Bautista Baños S (2015) Characterization of chitosan nanoparticles added with essential oils. *In vitro* effect on

Pectobacterium carotovorum. Revista Mexicana de Ingeniería Química 14 (3):589-599

45. **Simsek S,** Ovando-Martínez M, Whitney K, Bello-Pérez LA (2012) Effect of acetylation, oxidation and annealing on physicochemical properties of bean starch. Food Chemistry 134 (4):1796-1803

46. Utrilla-Coello RG, Agama-Acevedo E, Osorio-Díaz P, Reynoso-Camacho R, Bello-Pérez LA (2013) Glycemic response in healthy rats fed with composite cereal bars. Starch/Staerke 65 (3-4):354-359. doi:10.1002/star.201200129

47. Utrilla-Coello RG, Bello-Perez LA, Lara VH, Vernon-Carter EJ, Alvarez-Ramirez J (2014) A fractal analysis approach for predicting starch retrogradation from X-ray diffractograms. Starch/Staerke 66 (1-2):166-174. doi:10.1002/star.201300040

48. Utrilla-Coello RG, Bello-Pérez LA, Vernon-Carter EJ, Rodriguez E, Alvarez-Ramirez J (2013) Microstructure of retrograded starch: Quantification from lacunarity analysis of SEM micrographs. Journal of Food Engineering 116 (4):775-781. doi:10.1016/j.jfoodeng.2013.01.026

49. Utrilla-Coello RG, Hernández-Jaimes C, Carrillo-Navas H, González F, Rodríguez E, Bello-Pérez LA, Vernon-Carter EJ, Alvarez-Ramirez J (2014b) Acid hydrolysis of native corn starch: Morphology, crystallinity, rheological and thermal properties. Carbohydrate Polymers 103 (1):596-602. doi:10.1016/j.carbpol.2014.01.046

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51. Zamudio-Flores PB, Ochoa-Reyes E, Ornelas-Paz JDJ, Tirado-Gallegos JM, Bello-Pérez LA, Rubio-Ríos A, Cárdenas-Felix RG (2015) Physicochemical, mechanical, and structural features of oxidized oat and banana starch films enriched with betalains. Agrociencia 49 (5):483-498

52. M. E. Sotelo-Boyás, Z. N. Correa-Pacheco, S. Bautista-Baños, M. L. Corona-Rangel (2017) Physicochemical characterization of chitosan nanoparticles and nanocapsules incorporated with lime essential oil and their antibacterial activity against food-borne pathogens. LWT-Food Sci. Technol. 77: 15-20