

Referencias Bibliográficas

1. A. de la Rosa, L., Alvarez, E., & A. Gonzáles, G. (2010). *Fruit and Vegetables Phytochemicals*. Iowa, USA: Blackwell Publishing.
2. A. Venket Rao, P. a. (2000). Role of Antioxidant Lycopene in Cancer and Heart Disease. *Journal of the American College of Nutrition*, 563-9.
3. ADI group. (2009). Lycopene extrac from tomato. *JECFA*.
4. Aghel N, R. Z. (2010). Isolation and Quantification of Lycopene from tomato cultivated in Dezfoul, Iran. *Jundishapur Journal of Natural Pharmaceutical Products*, 9-15.
5. Ahmadi, M., Heidari, O., & Mohammadi Nafchi, A. R. (2015). Optimization of Lycopene Extraction from Tomato Waste with the Integration of Ultrasonic- Enzymatic Processes by Response Surface Methodology. *Journal of Industrial Engineering Research*, 29-34.
6. al., B. e. (2003). *España Patente nº 2186824*.
7. Alvaro, L. (16 de mayo de 2011). *Agricultores solicitan la industrializacion del Tomate*. Obtenido de El Pais:
<http://www.elpaisonline.com/index.php/2013-01-15-14-16-26/centrales/item/9142-agricultores-solicitan-la-industrializacion-del-tomate>
8. Azuelo, F., & Vargas, P. (2007). Extracción de Sustancias Asistida por Ultrasonido (UEA). *Tecnología en Marcha*, 30-40.
9. Barbara y Erika. (6 de Noviembre de 2013). *Arte, Cultura y Espiritualidades*. Obtenido de Flores de los alimentos :
<http://arteculturaespiritualidade.blogspot.com/2012/11/flores-dos-alimentos.html>
10. BCC Research. (23 de Septiembre de 2011). *BCC Research*. Obtenido de Global Carotenoids Market To Reach \$ 1.4 Billion In 2018:

[http://www.bccresearch.com/pressroom/fod/global-carotenoids-market-reach-\\$1.4-billion-2018](http://www.bccresearch.com/pressroom/fod/global-carotenoids-market-reach-$1.4-billion-2018)

11. Beatriz, N., Gouveia, L., Patricia, M., Ana, C., Antonio, P., & and Rui, M. (2012). Supercritical Extraction of Lycopene from Tomato Industrial Waste with Ethane. *Molecules*, 8397-8407.
12. Breijo, F. J. (2003). *Frutos*. Obtenido de Bayas:
http://www.euita.upv.es/varios/biologia/web_frutos/Bayas.htm
13. Breijo, F. J. (s.f.). *Frutas y Bayas*. Obtenido de
http://www.euita.upv.es/varios/biologia/web_frutos/Bayas.htm
14. Britton, G. (1995). Structure and Properties of Carotenoids in relation to Function. *FASEB Journal*, 1551-1558.
15. CENTA, Centro Nacional de Tecnología Agropecuaria y Forestal. (25 de Abril de 2014). Guía Técnica Cultivo de Tomate. Arce la Libertad, El Salvador.
16. Centro de Investigaciones Químicas, CIQ. (Mayo de 2015). *Centro de Investigaciones Químicas, CIQ*. Obtenido de <http://guadalupe-bascope.wix.com/ciq#!investigacion-y-proyectos/vstc1=residuos-de-tomate>
17. Choudhary, R. (2004). *Rapid Estimation of Lycopene Concentration in Watermelon and Tomato Samples by Fiber Optic Visible Spectroscopy*. Jabalpur, India: Thesis.
18. D.K. Salunke, S. J. (s.f.). Quality and Nutritional Composition of Tomato fruit as Influenced by certain Biochemical and Physiological Changes. *Longan, Edmonton and Washington*.
19. Elbadrawy, E. (23 de Julio de 2011). *Arabian Journal of Chemistry*. Obtenido de Evaluation of Nutritional Value and Antioxidant Activity of Tomato Peel Extract:
<http://www.sciencedirect.com/science/article/pii/S1878535211002966>

20. Eliana M. Cardona, L. A. (2006). Extracción del carotenoide Licopeno del tomate Chonto (*Lycopersicum esculentum*). *VITAE*, 44-53.
21. Environmental Chemistry Lab. (14 de Agosto de 2014). *Organic Chemistry Laboratory CHEM 333L*. Obtenido de Isolation of Lycopene from Tomato Paste using Column Chromatography:
<http://infohost.nmt.edu/~jaltig/Lycopene.pdf>
22. European Food Safety Authority, EFSA. (2008). Safety of Lycopene oleoresin from tomatoes. *The EFSA Journal*, 675, 1-22.
23. FAO/WHO Expert Committee on Food Additives. (2006). *Evaluation of Certain Food Additives And Contaminants*. Rome, Italy: WHO Library Cataloguing.
24. Fernandez, C., Pitre, A., Llbregat, M., & and Rondón, Y. (2007). Evaluación del Contenido de Licopeno en Pastas de Tomate Comerciales. *Información Tecnológica*, 31-38.
25. Ferrari, M., Vranic, M., & Rossi, A. a. (5 de Agosto de 2012). *IUFoST, World Congress and Food Science Technology*. Obtenido de Comparison of Three Extraction Methods to Obtain Extracts, Rich in Lycopene, from Skin and Pulp Liophilized Tomatoes: iufost.org.br/sites/iufost.org.br/files/anais/07490.pdf
26. Food Ingredients Brasil. (2008). Stability of Lycopene During Food Processing and Storage. *Food Ingredients Brasil*, 32-42.
27. G. Nonhebel, e. a. (1979). *El secado de sólidos en la industria química*. España: Reverté S.A.
28. GAUTIER SEMILLAS. (2015). *GAUTIER SEMILLAS*. Obtenido de Semilla de Tomate Pera:
<http://www.interempresas.net/Agricola/FeriaVirtual/Producto-Semillas-de-Tomate-Pera-Gautier-Atyliade-AL142-HF1-68918.html>

29. Gemma Aràndiga Martí, S. D. (2008). Estudio del licopeno del tomate como colorante natural desde la perspectiva analítica e industrial.
30. Gray, N. (2013). A red Revolution: As the science grows for lycopene, will the market follow? *Nutraingredients*.
31. Haroon, S. (2014). *Extraction of lycopene from tomato paste and its Immobilization for Controlled Release*. New Zealand.
32. Harry J. Fuller et. al. (1974). *Botanica*. México: Nueva Editorial Interamericana.
33. Helena Morais; Ana Abram; y Fernando Ferreira. (2006). Carotenoids Biosynthesis. *Revista Lusófona* , 22-42.
34. Heller, L. (10 de July de 2009). *Nutraingredients-USA*. Obtenido de US Leads in Lycopene Launches: <http://www.nutraingredients-usa.com/Markets/US-leads-in-lycopene-launches>
35. Hernández, F. (s.f.). *El cultivo del Tomate Perita*. Obtenido de Asistencia Técnica Agrícola: http://www.agro-tecnologia-tropical.com/cultivo_tomate_perita.html
36. Heuvelink, E. (2005). *Tomatoes* . Obtenido de GoogleBook: https://books.google.com.bo/books?id=qwMnnepN3uIC&pg=PA72&lpg=PA72&dq=pericarp+wall+tomatoes&source=bl&ots=zoObICfObO&sig=q8nii_8AuhtAj7tUOEfdNluzeZE&hl=es&sa=X&ei=KyZZVd3NNoe5ggT-74CQAg&ved=0CDEQ6AEwBQ#v=onepage&q=pericarp%20wall%20tomatoes&f=false
37. Hielscher Ultrasonic gmbh. (2015). *Hielscher Ultrasonic Corporation*. Obtenido de Ultrasonic Extraction of Caffeine and other Active Compounds: <http://www.hielscher.com/ultrasonic-extraction-of-caffeine-and-other-active-compounds.htm>

38. INE. Instituto Nacional de Estadísticas. (2001). *INE*. Obtenido de Agricultura y Ganadería: http://www.ine.gob.bo/PDF/Anuario_2000/40104.pdf
39. Inneov. (15 de Mayo de 2015). *Inneov, Investigación avanzada de Nestlé y L'Oréal*. Obtenido de <http://www.inneov.es/inn%C3%A9ov/Espa%C3%B1a/Investigaciones-avanzadas-en-nutrici%C3%B3n-Nestl%C3%A9-y-en-biolog%C3%ADa-de-la-piel-L-Or%C3%A9al-home.aspx>
40. Iris Carmona. (2013). Utilización de los residuos de la Industria del toamte para la obtencion de compuestos bioactivos. *Agrimundo, Inteligencia Competitiva para el sector Agropecuario*, 1-4.
41. Jorge Jaramillo, V. P. (2007). *Buenas Practicas Agricolas en la Produccion de Tomate Bajo Condiciones Protegidas*. Antioquia.
42. Jurado, C. O. (2014). Elaboración de Tomate deshidratado . Tarija, Bolivia.
43. Kaur, D., Singh, D., & Agrawal, K. (2014). In vitro anti-proliferative Activities of Lycopene against prostate, lung, colon and breast cancer cell lines. *International Journal of Food and Nutritional Sciences*, 2320-7876.
44. Kaur, D., Wani, A. A., Oberoi, D., & Sogi, D. (2008). *Researchgate*. Obtenido de Effect of Extraction Condition on Lycopene Extraction from Tomato Processing Waste Skin using Response Surface Methodology: https://www.researchgate.net/publication/248510400_Effect_of_extraction_conditions_on_lycopene_extractions_from_tomato_processing_waste_skin_using_response_surface_methodology
45. Kumcuoglu, S., Yilmaz, T., & Tavman, S. (19 de January de 2013). Ultrasound Assisted Extraction of Lycopene from Tomato Processing Wastes. *Association of Food Scientists Technologists*, 4102-4107.
46. Laleye, L., Al-Hammadi, S., & Jobe, B. a. (2010). *Center for Agriculture and Biosciences International, CABI*. Obtenido de Assessment of Lycopene content of fresh tomatoes and tomato products in the United Arab Emirates:

<http://www.cabdirect.org/abstracts/20113031220.html;jsessionid=B8CF1AD964CA6D53FEBCE5FF48047862>

47. Lavecchia, R., & Zuorro, A. (2008). Enhancement of Lycopene extraction from tomato peels by enzymatic treatment. *Chemical Engineering Transactions*, 301-308.
48. Luengo, E., Álvarez, I., & Raso, J. (2014). Improving Carotenoids Extraction from Tomato waste by Pulsed Electric Fields. *Frontiers in Nutrition, Nutrition and Food Science Technology*, 1-10.
49. Mareike Kelkel, M. S. (2011). Antioxidant and Anti-proliferative properties of lycopene. *Informa Healthcare*, 925-940.
50. Maria J. Periago, I. M. (2001). Propiedades químicas, biológicas y valor nutritivo el Licopeno. *Anales de Veterinaria de Murcia*, 51-63.
51. Marketsandmarkets. (Febrero de 2015). *Market Research Firm*. Obtenido de Supplements, Food, Feed and Cosmetics, Global Trends and Forecasts to 2019: <http://www.marketsandmarkets.com/Market-Reports/carotenoid-market-158421566.html>
52. Martínez Martínez, A. (Febrero de 2003). Carotenoides. *Carotenoides*. Medellín, Colombia.
53. Ministerio de Agricultura, Republica Dominicana. (28 de Septiembre de 2013). *Tomate Industrial*. Obtenido de Ministerio de Agricultura: <http://www.agricultura.gob.do/perfiles/los-vegetales/el-tomate-industrial/>
54. Ministerio de Desarrollo Rural y Tierras; Nemesia Achacollo et. al. (2012). *Compendio Agropecuario*. La Paz, Bolivia.
55. National Institute of Standards and Technology. (2016). *National Institute of Standards and Technology*. Obtenido de Ethyl Acetate: <http://webbook.nist.gov/cgi/cbook.cgi?ID=C141786&Mask=4>

56. Nestlè. (2013). *Nestlè Professional*. Obtenido de <https://www.nestleprofessional.com/spain/es/BrandsAndProducts/Brands/SO LIS/Pages/default.aspx?UrlReferrer=https%3a%2f%2fwww.google.com.bo%2f>
57. Nirmal Sinha et al. (s.f.). *Handbook of Vegetables and Vegetables Processing*. En N. S. al..
58. Parma, L. S. (s.f.). *Extraction of lycopene from tomato processing wastes*. Obtenido de SSICA: luca.sandei@ssica.it
59. Petrovic, S., Ivanovic, J., Milovanovic, S., & Zizovic, I. (2012). Comparative Analyses of the Diffusion Coefficients from Thyme for Different Extraction Processes. *Journal of Serbian Chemical Society*, 799-813.
60. Pram YODJUN, Khantong SOONTARAPA and Chutima EAMCHOTCHAWALIT. (2011). Separation of lycopene/Solvent mixture by Chitosan Membranes. *Journal of materials and Minerals, Vol 21 No. 1*, 107-113.
61. Rodriguez, D. B., Amaya, & Kimura, M. (2004). *HarvestPlus Handbook for Carotenoid Analysis*. Washintong, DC.: HarvestPlus.
62. Rodriguez, Z., Robaina Mesa, M., Jáuregui Haza, U., Blanco Gonzáles, A., & Rodríguez Chanfrau, J. (2014). Empleo de la Radiación Ultrasónica para la Extracción de Compuestos Bioactivos provenientes de Fuentes Naturales. Estado actual y perspectivas. *CENIC Ciencias Químicas*, 45, 139-147.
63. Roh, M.-K., Jeon, M.-H., Moon, J.-N., Moon, W.-S., Park, S.-M., & Choi, J.-S. (2013). A Simple Method for Isolation of Lycopene from *Lycopersicon Esculentum*. *Botanical Sciences*, 187-192.
64. Rost, T. L. (1996). *Fruits and Flowers Anatomy*. Obtenido de <http://www-plb.ucdavis.edu/labs/rost/Tomato/Reproductive/anat.html>

65. S., K., T., Y., & Tavman, S. (Diciembre de 2014). *unbound Medicine*.
Obtenido de Ultrasound Assisted Extraction of Lycopene from Tomato
Processing Waste:
http://www.unboundmedicine.com/medline/citation/25477688/Ultrasound_assisted_extraction_of_lycopene_from_tomato_processing_wastes_
66. School of Chemical Sciences, Univeresiti Sains Malaysa, Malaysia. (19 de Enero de 2012). *National Center for Biotchnology Information* . Obtenido de Novel Modifed Ultrasonication Technique for the Extraction of Lycopene from Tomatoes: <http://www.ncbi.nlm.nih.gov/pubmed/21715212>
67. Seher, K., Tunkay, Y., & and Sebnem, T. (Diciembre de 2014). *National Center for Biotechnology Information*. Obtenido de Ultrasound Assited Extractiion of Lycopene from Tomato processing wastes:
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4252437/>
68. Smith, J., Van Ness, H., & Abbott, M. (1995). *Introducción a la termodinámica en Ingeniería Química*. Mexico: McGraw-Hill.
69. Susanne Rath, P. (2009). Lycopene Extract from Tomato. *Chemical and Technical Assessment (CTA)*. Obtenido de http://www.fao.org/fileadmin/templates/agns/pdf/jecfa/cta/71/lycopene_extract_from_tomato.pdf
70. Susanne Rath, P. (2009). *Lycopene Extract from Tomato, Chemical and Technical Assessment (CTA)*.
71. The Royal Society of Chemistry. (1997). En B. Faust, *Modern Chemical Techniques* (págs. 116-159).
72. Topal, U., Sasaki, M., & Goto, M. a. (2009). Extraction of Lycopene from Tomato Skin with Supercritical Carbon Dioxide: Effect of Operating Conditions and Solubility Analysis. *Journal of Agricultural and Food Chemistry*, 5604-5610.

73. Tranchero, R. F. (2012). *Caracterización de 15 Variedades locales de tomate de L'Horta de Lleida*. Lleida.
74. Ummihan, T., Mitsuru, S., Motonobu, G., & and Kiro, H. (2009). Extraction of lycopene from tomato Skin with Supercritical Carbon Dioxide: Effect of Operating Condition and Solubility Analysis. *Agricultural and Food Chemistry*, 5604-5610.
75. University of Bristol. UK. (s.f.). *Sonochemistry*. Obtenido de Sonochemistry: <http://www.chm.bris.ac.uk/webprojects2004/eaimkhong/theory1.htm>
76. Vardagena, R., Santos, D., & Meireles, A. (2014). Intensification of Bioactive compounds extraction from medicinal plants using ultrasonic irradiation. *Pharmacognosy Review*, 88-95. Obtenido de <http://www.phcogrev.com/article.asp?issn=0973-7847;year=2014;volume=8;issue=16;spage=88;epage=95;aulast=Vardanega>
77. WA Brown and Virginia Corporation. (2014). *Sonics on Line*. Obtenido de Branson B5510 Ultrasonic Cleaner: <http://www.sonicsonline.com/b5510.html>
78. Wang, Z., Xiaokun, L., & and Wang, H. (2015). *Food Science*. Obtenido de Lycopene from tomato peel: Optimization of Ultrasonic Assited Extraction Methodology and Identification by High performance liquid chromatography: <http://www.spkx.net.cn/EN/abstract/abstract36483.shtml>
79. Watson, E. (24 de May de 2012). *Food Navigator-USA.com*. Obtenido de LycoRed Reports Rocketing Demand for Lycopene-based Red Color as Firms Seek Aternatives to Carmine : <http://www.foodnavigator-usa.com/Markets/LycoRed-reports-rocketing-demand-for-lycopene-based-red-color-as-firms-seek-alternatives-to-carmine>
80. Wayne W. Fish, P. P.-V. (2002). A Quantitative Assay for Lycopene That Utilizaes Reduced Volumens of Organic Solvents. *Journal of Food Composition and Analysis*, 309-317.

81. Wikipedia. (5 de Julio de 2013). *Wikipedia*. Obtenido de Ethylacetate:
[https://en.wikipedia.org/wiki/Ethyl_acetate_\(data_page\)](https://en.wikipedia.org/wiki/Ethyl_acetate_(data_page))
82. Wikipedia. (8 de Marzo de 2016). *Wikipedia*. Obtenido de Ultrasound:
<https://en.wikipedia.org/wiki/Ultrasound>
83. Wikipedia. (5 de April de 2016). *Wikipedia* . Obtenido de Lycopene:
<https://en.wikipedia.org/wiki/Lycopene>
84. Yépez, J. N. (2013). *Caracterización físico-química y microbiología del tomate margariteño (Lycopersicon esculentum var. España) y evaluación de la efectividad de tratamientos de pre-ensado para el incremento de su vida comercial a temperatura ambiente*. Córdoba.
85. Zhao Suoqi, H. Y. (s.f.). Extracting Lycopene from tomato powders by Supercritical Propane and Carbon Dioxide with Industrial scale pilot. China.
86. Zhao, S., Hu, Y., & Qi, G. a. (s.f.). Extracting Lycopene from Tomato Powders by Supercritical Propane and Carbon Dioxide with Industrial Scale Pilot. *State Key Laboratory of Heavy Oil Processing, University of Petroleum, Beijing*.
87. Zhu, J., Wu, H., & Yang, S. a. (Septiembre de 2013). *ResearchGate*. Obtenido de Technology Optimization of Ultrasonic Assisted Extraction for Lycopene from Lyophilized Tomato Powder:
https://www.researchgate.net/publication/286096862_Technology_optimization_of_ultrasonic-assisted_extraction_for_lycopene_from_lyophilized_tomato_powder
88. Zofia Olempska-Bier, P. (2005). Lycopene (Synthetic) Chemical and Technical Assessment CTA. United State.