

**Aronia Scientific Articles – Process Related**  
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Title	Authors	Citation	URL Link
The influence of the extrusion process on the nutritional composition, physical properties and storage stability of black chokeberry pomaces	Witczak T, Stępień A, Gumul D, Witczak M, Fiutak G, Zięba T.	Food Chem. 2021 Jan 1;334:127548. doi: 10.1016/j.foodchem.2020.127548. Epub 2020 Jul 17.	<a href="#">The influence of the extrusion process on the nutritional composition, physical properties and storage stability of black chokeberry pomaces   Elsevier Enhanced Reader</a>
Stability and structural characteristics of amylopectin nanoparticle-binding anthocyanins in Aronia melanocarpa	Tong Y, Deng H, Kong Y, Tan C, Chen J, Wan M, Wang M, Yan T, Meng X, Li L.	Food Chem. 2020 May 1;311:125687. doi: 10.1016/j.foodchem.2019.125687. Epub 2019 Oct 19.	<a href="#">Stability and structural characteristics of amylopectin nanoparticle-binding anthocyanins in Aronia melanocarpa - PubMed (nih.gov)</a>
The Effect of Plant Additives on the Stability of Polyphenols in Cloudy and Clarified Juices from Black Chokeberry (Aronia melanocarpa)	Sidor A, Drożdżyńska A, Brzozowska A, Szwengiel A, Gramza-Michałowska A.	Antioxidants (Basel). 2020 Aug 27;9(9):801. doi: 10.3390/antiox9090801.	<a href="#">Antioxidants   Free Full-Text   The Effect of Plant Additives on the Stability of Polyphenols in Cloudy and Clarified Juices from Black Chokeberry (Aronia melanocarpa)   HTML (mdpi.com)</a>
Nanoencapsulation of synergistic antioxidant fruit and vegetable concentrates and their stability during in vitro digestion	Jeong SJ, Lee JS, Lee HG.	J Sci Food Agric. 2020 Feb;100(3):1056-1063. doi: 10.1002/jsfa.10110. Epub 2019 Nov 21.	<a href="#">Nanoencapsulation of synergistic antioxidant fruit and vegetable concentrates and their stability during in vitro digestion - Jeong - 2020 - Journal of the Science of Food and Agriculture - Wiley Online Library</a>
Yogurts Supplemented with Juices from Grapes and Berries	Dimitrellou D, Solomakou N, Kokkinomagoulos E, Kandyli P.	Foods. 2020 Aug 21;9(9):1158. doi: 10.3390/foods9091158.	<a href="#">Foods   Free Full-Text   Yogurts Supplemented with Juices from Grapes and Berries   HTML (mdpi.com)</a>

Freeze-drying of black chokeberry pomace extract-loaded double emulsions to obtain dispersible powders	Eisinaité V, Leskauskaitė D, Pukalskienė M, Venskutonis PR.	J Food Sci. 2020 Mar;85(3):628-638. doi: 10.1111/1750-3841.14995. Epub 2020 Feb 13.	<a href="#">Freeze-drying of black chokeberry pomace extract-loaded double emulsions to obtain dispersible powders - Eisinaité - 2020 - Journal of Food Science - Wiley Online Library</a>
Carbohydrate Hydrolase-Inhibitory Activity of Juice-Based Phenolic Extracts in Correlation to Their Anthocyanin/Copigment Profile	Berger K, Ostberg-Potthoff JJ, Bakuradze T, Winterhalter P, Richling E.	Molecules. 2020 Nov 10;25(22):5224. doi: 10.3390/molecules25225224.	<a href="#">Molecules   Free Full-Text   Carbohydrate Hydrolase-Inhibitory Activity of Juice-Based Phenolic Extracts in Correlation to Their Anthocyanin/Copigment Profile   HTML (mdpi.com)</a>
Optimization of the Recovery of Anthocyanins from Chokeberry Juice Pomace by Homogenization in Acidified Water	Roda-Serrat MC, Andrade TA, Rindom J, Lund PB, Norddahl B, Errico M.	Waste Biomass Valorization. 2020 Jun 20:1-13. doi: 10.1007/s12649-020-01127-w. Online ahead of print.	<a href="#">Optimization of the Recovery of Anthocyanins from Chokeberry Juice Pomace by Homogenization in Acidified Water   SpringerLink</a>
Effect of Vacuum Impregnation with Apple-Pear Juice on Content of Bioactive Compounds and Antioxidant Activity of Dried Chokeberry Fruit	Nawirska-Olszańska A, Paśławska M, Stępień B, Oziembłowski M, Sala K, Smorowska A.	Foods. 2020 Jan 20;9(1):108. doi: 10.3390/foods9010108.	<a href="#">Foods   Free Full-Text   Effect of Vacuum Impregnation with Apple-Pear Juice on Content of Bioactive Compounds and Antioxidant Activity of Dried Chokeberry Fruit   HTML (mdpi.com)</a>
Chemometric contribution for deeper understanding of thermally-induced changes of polyphenolics and the formation of hydroxymethyl-L-furfural in chokeberry powders	Michalska-Ciechanowska A, Brzezowska J, Wojdyło A, Gajewicz-Skretna A, Ciska E, Majerska J.	Food Chem. 2020 Oct 8:128335. doi: 10.1016/j.foodchem.2020.128335. Online ahead of print.	<a href="#">Chemometric contribution for deeper understanding of thermally-induced changes of polyphenolics and the formation of hydroxymethyl-L-furfural in chokeberry powders. - Abstract - Europe PMC</a>
Aronia Berry Processing by Spray Drying: From Byproduct to High Quality Functional Powder	Vidović S, Ramić M, Ambrus R, Vladić J, Szabó-	Food Technol Biotechnol. 2019 Dec;57(4):513-524. doi:	<a href="#">Aronia Berry Processing by Spray Drying: From Byproduct to High Quality Functional Powder (nih.gov)</a>

	Révész P, Gavarić A.	10.17113/ftb.57.04.19.6369.	
Co-pigmentation of black chokeberry ( <i>Aronia melanocarpa</i> ) anthocyanins with phenolic co-pigments and herbal extracts	Klisurova D, Petrova I, Ognyanov M, Georgiev Y, Kratchanova M, Denev P.	Food Chem. 2019 May 1;279:162-170. doi: 10.1016/j.foodchem.2018.11.125. Epub 2018 Dec 6.	<a href="#">Co-pigmentation of black chokeberry (<i>Aronia melanocarpa</i>) anthocyanins with phenolic co-pigments and herbal extracts - ScienceDirect</a>
Phenolic Composition, Radical Scavenging Activity and an Approach for Authentication of <i>Aronia melanocarpa</i> Berries, Juice, and Pomace	Rodríguez-Werner M, Winterhalter P, Esatbeyoglu T.	J Food Sci. 2019 Jul;84(7):1791-1798. doi: 10.1111/1750-3841.14660. Epub 2019 Jun 17.	<a href="#">Phenolic Composition, Radical Scavenging Activity and an Approach for Authentication of <i>Aronia melanocarpa</i> Berries, Juice, and Pomace - Rodríguez-Werner - 2019 - Journal of Food Science - Wiley Online Library</a>
Effect of the black chokeberry ( <i>Aronia melanocarpa</i> (Michx.) Elliott) juice acquisition method on the content of polyphenols and antioxidant activity	Kobus Z, Nadulski R, Wilczyński K, Kozak M, Guz T, Rydzak L.	PLoS One. 2019 Jul 18;14(7):e0219585. doi: 10.1371/journal.pone.0219585. eCollection 2019.	<a href="#">Effect of the black chokeberry (<i>Aronia melanocarpa</i> (Michx.) Elliott) juice acquisition method on the content of polyphenols and antioxidant activity (plos.org)</a>
Composition and physicochemical properties of dried berry pomace	Reißner AM, Al-Hamimi S, Quiles A, Schmidt C, Struck S, Hernando I, Turner C, Rohm H.	J Sci Food Agric. 2019 Feb;99(3):1284-1293. doi: 10.1002/jsfa.9302. Epub 2018 Sep 19.	<a href="#">Composition and physicochemical properties of dried berry pomace - Reißner - 2019 - Journal of the Science of Food and Agriculture - Wiley Online Library</a>
Fruit and herbal meads - Chemical composition and antioxidant properties	Kawa-Rygielska J, Adamenko K, Kucharska AZ, Szatkowska K.	Food Chem. 2019 Jun 15;283:19-27. doi: 10.1016/j.foodchem.2019.01.040. Epub 2019 Jan 16.	<a href="#">Fruit and herbal meads – Chemical composition and antioxidant properties - ScienceDirect</a>

Quality assessment of experimental cookies enriched with freeze-dried black chokeberry	Sady S, Sielicka-Różyńska M.	Acta Sci Pol Technol Aliment. 2019 Oct-Dec;18(4):463-471. doi: 10.17306/J.AFS.0686.	<a href="#">Quality assessment of experimental cookies enriched with freeze-dried black chokeberry - PubMed (nih.gov)</a>
Impact of lactic acid fermentation on acids, sugars, and phenolic compounds in black chokeberry and sea buckthorn juices	Markkinen N, Laaksonen O, Nahku R, Kuldjärv R, Yang B.	Food Chem. 2019 Jul 15;286:204-215. doi: 10.1016/j.foodchem.2019.01.189. Epub 2019 Feb 7.	<a href="#">Impact of lactic acid fermentation on acids, sugars, and phenolic compounds in black chokeberry and sea buckthorn juices - ScienceDirect</a>
Chokeberry polyphenols preservation using spray drying: effect of encapsulation using maltodextrin and skimmed milk on their recovery following in vitro digestion	Ćujić-Nikolić N, Stanisavljević N, Šavikin K, Kalušević A, Nedović V, Samardžić J, Janković T.	J Microencapsul. 2019 Dec;36(8):693-703. doi: 10.1080/02652048.2019.1667448. Epub 2019 Sep 24.	<a href="#">Chokeberry polyphenols preservation using spray drying: effect of encapsulation using maltodextrin and skimmed milk on their recovery following in vitro digestion: Journal of Microencapsulation: Vol 36, No 8 (tandfonline.com)</a>
Browning Index of Anthocyanin-Rich Fruit Juice Depends on pH and Anthocyanin Loss More Than the Gain of Soluble Polymeric Pigments	Dorris MR, Voss DM, Bollom MA, Krawiec-Thayer MP, Bolling BW.	J Food Sci. 2018 Apr;83(4):911-921. doi: 10.1111/1750-3841.14106. Epub 2018 Mar 25.	<a href="#">Browning Index of Anthocyanin-Rich Fruit Juice Depends on pH and Anthocyanin Loss More Than the Gain of Soluble Polymeric Pigments - Dorris - 2018 - Journal of Food Science - Wiley Online Library</a>
Antioxidant Potential of Fruit Juice with Added Chokeberry Powder (Aronia melanocarpa)	Šic Žlabur J, Dobričević N, Pliestic S, Galić A, Bilić DP, Voća S.	Molecules. 2017 Dec 5;22(12):2158. doi: 10.3390/molecules22122158.	<a href="#">Molecules   Free Full-Text   Antioxidant Potential of Fruit Juice with Added Chokeberry Powder (Aronia melanocarpa)   HTML (mdpi.com)</a>
Effect of UV-C Radiation, Ultra-Sonication Electromagnetic Field and Microwaves on Changes in Polyphenolic Compounds in Chokeberry (Aronia melanocarpa)	Cebulak T, Oszmiański J, Kapusta I, Lachowicz S.	Molecules. 2017 Jul 12;22(7):1161. doi: 10.3390/molecules22071161.	<a href="#">Molecules   Free Full-Text   Effect of UV-C Radiation, Ultra-Sonication Electromagnetic Field and Microwaves on Changes in Polyphenolic Compounds in Chokeberry (Aronia melanocarpa)   HTML (mdpi.com)</a>

Distribution of apparent activation energy counterparts during thermo - And thermo-oxidative degradation of Aronia melanocarpa (black chokeberry)	Janković B, Marinović-Cincović M, Janković M.	Food Chem. 2017 Sep 1;230:30-39. doi: 10.1016/j.foodchem.2017.03.008. Epub 2017 Mar 6.	<a href="#">Distribution of apparent activation energy counterparts during thermo – And thermo-oxidative degradation of Aronia melanocarpa (black chokeberry) - ScienceDirect</a>
Protein-Tannin Interactions of Tryptic Digests of $\alpha$ -Lactalbumin and Procyanidins	Wang B, Heinonen M.	J Agric Food Chem. 2017 Jan 11;65(1):148-155. doi: 10.1021/acs.jafc.6b04256. Epub 2016 Dec 19.	<a href="#">Protein–Tannin Interactions of Tryptic Digests of <math>\alpha</math>-Lactalbumin and Procyanidins   Journal of Agricultural and Food Chemistry (acs.org)</a>
The Influence of the Osmotic Dehydration Process on Physicochemical Properties of Osmotic Solution	Lech K, Michalska A, Wojdyło A, Nowicka P, Figiel A.	Molecules. 2017 Dec 16;22(12):2246. doi: 10.3390/molecules22122246.	<a href="#">The Influence of the Osmotic Dehydration Process on Physicochemical Properties of Osmotic Solution (nih.gov)</a>
Influence of juice processing factors on quality of black chokeberry pomace as a future resource for colour extraction	Vagiri M, Jensen M.	Food Chem. 2017 Feb 15;217:409-417. doi: 10.1016/j.foodchem.2016.08.121. Epub 2016 Aug 31.	<a href="#">Influence of juice processing factors on quality of black chokeberry pomace as a future resource for colour extraction - ScienceDirect</a>
Salal (Gaultheria shallon) and aronia (Aronia melanocarpa) fruits from Orkney: Phenolic content, composition and effect of wine-making	McDougall GJ, Austin C, Van Schayk E, Martin P.	Food Chem. 2016 Aug 15;205:239-47. doi: 10.1016/j.foodchem.2016.03.025. Epub 2016 Mar 9.	<a href="#">Salal (Gaultheria shallon) and aronia (Aronia melanocarpa) fruits from Orkney: Phenolic content, composition and effect of wine-making - ScienceDirect</a>
Polyphenols and Volatile Compounds in Commercial Chokeberry (Aronia melanocarpa) Products	Romani A, Vignolini P, Ieri F, Heimler D.	Nat Prod Commun. 2016 Jan;11(1):99-102.	<a href="#">Polyphenols and Volatile Compounds in Commercial Chokeberry (Aronia melanocarpa) Products - PubMed (nih.gov)</a>
Enhancement of Cognitive Functions by Aronia melanocarpa Elliot Through an Intermittent Ultrasonication Extraction Process	Kim NY, Lee HY.	J Med Food. 2016 Mar;19(3):245-52. doi: 10.1089/jmf.2015.35	<a href="#">Enhancement of Cognitive Functions by Aronia melanocarpa Elliot Through an Intermittent Ultrasonication Extraction Process   Journal of Medicinal Food (liebertpub.com)</a>

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Effect of the Production of Dried Fruits and Juice from Chokeberry ( <i>Aronia melanocarpa</i> L.) on the Content and Antioxidative Activity of Bioactive Compounds	Oszmiański J, Lachowicz S.	Molecules. 2016 Aug 22;21(8):1098. doi: 10.3390/molecules21081098.	<a href="#">Effect of the Production of Dried Fruits and Juice from Chokeberry (<i>Aronia melanocarpa</i> L.) on the Content and Antioxidative Activity of Bioactive Compounds (nih.gov)</a>
Effects of drying methods on contents of bioactive compounds and antioxidant activities of black chokeberries ( <i>Aronia melanocarpa</i> )	Thi ND, Hwang ES.	Food Sci Biotechnol. 2016 Feb 29;25(1):55-61. doi: 10.1007/s10068-016-0008-8. eCollection 2016.	<a href="#">Effects of drying methods on contents of bioactive compounds and antioxidant activities of black chokeberries (<i>Aronia melanocarpa</i>)   SpringerLink</a>
Stability of polyphenols in chokeberry juice treated with gas phase plasma	Bursać Kovačević D, Gajdoš Kljusurić J, Putnik P, Vukušić T, Herceg Z, Dragović-Uzelac V.	Food Chem. 2016 Dec 1;212:323-31. doi: 10.1016/j.foodchem.2016.05.192. Epub 2016 Jun 1.	<a href="#">Stability of polyphenols in chokeberry juice treated with gas phase plasma - ScienceDirect</a>
Optimization of polyphenols extraction from dried chokeberry using maceration as traditional technique	Ćujić N, Šavikin K, Janković T, Pljevljakušić D, Zdunić G, Ibrić S.	Food Chem. 2016 Mar 1;194:135-42. doi: 10.1016/j.foodchem.2015.08.008. Epub 2015 Aug 4.	<a href="#">Optimization of polyphenols extraction from dried chokeberry using maceration as traditional technique - ScienceDirect</a>
Phenolic Content, Antioxidant Capacity and Quality of Chokeberry ( <i>Aronia melanocarpa</i> ) Products	Tolić MT, Jurčević IL, Krbavčić IP, Marković K, Vahčić N.	Food Technol Biotechnol. 2015 Jun;53(2):171-179. doi: 10.17113/ftb.53.02.15.3833.	<a href="#">Phenolic Content, Antioxidant Capacity and Quality of Chokeberry (<i>Aronia melanocarpa</i>) Products (nih.gov)</a>

Modeling and optimization of ultrasound-assisted extraction of polyphenolic compounds from Aronia melanocarpa by-products from filter-tea factory	Ramić M, Vidović S, Zeković Z, Vladić J, Cvejin A, Pavlić B.	Ultrason Sonochem. 2015 Mar;23:360-8. doi: 10.1016/j.ultsonch.2014.10.002. Epub 2014 Oct 17.	<a href="#">Modeling and optimization of ultrasound-assisted extraction of polyphenolic compounds from Aronia melanocarpa by-products from filter-tea factory - ScienceDirect</a>
Changes in chokeberry (Aronia melanocarpa L.) polyphenols during juice processing and storage	Wilkes K, Howard LR, Brownmiller C, Prior RL.	J Agric Food Chem. 2014 May 7;62(18):4018-25. doi: 10.1021/jf404281n. Epub 2013 Dec 9.	<a href="#">Changes in Chokeberry (Aronia melanocarpa L.) Polyphenols during Juice Processing and Storage   Journal of Agricultural and Food Chemistry (acs.org)</a>
Characterisation of Aronia powders obtained by different drying processes	Horszwald A, Julien H, Andlauer W.	Food Chem. 2013 Dec 1;141(3):2858-63. doi: 10.1016/j.foodchem.2013.05.103. Epub 2013 May 30.	<a href="#">Characterisation of Aronia powders obtained by different drying processes - PubMed (nih.gov)</a>
Anthocyanin degradation of blueberry-aronia nectar in glass compared with carton during storage	Trost K, Golc-Wondra A, Prosek M, Milivojevic L.	J Food Sci. 2008 Oct;73(8):S405-11. doi: 10.1111/j.1750-3841.2008.00909.x.	<a href="#">Anthocyanin Degradation of Blueberry–Aronia Nectar in Glass Compared with Carton during Storage - Trošt - 2008 - Journal of Food Science - Wiley Online Library</a>
[Stability and antioxidant activity of black currant and black aronia berry juices]	Kasparaviciene G, Briedis V.	Medicina (Kaunas). 2003;39 Suppl 2:65-9.	<a href="#">[Stability and antioxidant activity of black currant and black aronia berry juices] - PubMed (nih.gov)</a>
The Effect of Plant Additives on the Stability of Polyphenols in Dried Black Chokeberry (Aronia melanocarpa) Fruit	Sidor A, Drożdżyńska A, Brzozowska A, Gramza-Michałowska A.	Foods. 2020 Dec 26;10(1):44. doi: 10.3390/foods10010044.	<a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7824072/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7824072/</a>

Effect of black chokeberry pomace extract incorporation on the physical and oxidative stability of water-in-oil-in-water emulsion	Eisinaite V, Kazernavičiūtė R, Kaniauskienė I, Venskutonis PR, Leskauskaitė D.	J Sci Food Agric. 2021 Aug 30;101(11):4570-4577. doi: 10.1002/jsfa.11099. Epub 2021 Feb 6.	<a href="#">Effect of black chokeberry pomace extract incorporation on the physical and oxidative stability of water-in-oil-in-water emulsion - Eisinaite - 2021 - Journal of the Science of Food and Agriculture - Wiley Online Library</a>
Assessment of Chokeberry Powders Quality Obtained Using an Innovative Fluidized-Bed Jet Milling and Drying Method with Pre-Drying Compared with Convection Drying	Sadowska A, Świdorski F, Hallmann E, Świąder K.	Foods. 2021 Feb 1;10(2):292. doi: 10.3390/foods10020292.	<a href="#">Foods   Free Full-Text   Assessment of Chokeberry Powders Quality Obtained Using an Innovative Fluidized-Bed Jet Milling and Drying Method with Pre-Drying Compared with Convection Drying (mdpi.com)</a>
Extrusion Processing of Pure Chokeberry (Aronia melanocarpa) Pomace: Impact on Dietary Fiber Profile and Bioactive Compounds	Schmid V, Steck J, Mayer-Miebach E, Behnsilian D, Bunzel M, Karbstein HP, Emin MA.	Foods. 2021 Mar 2;10(3):518. doi: 10.3390/foods10030518.	<a href="#">Foods   Free Full-Text   Extrusion Processing of Pure Chokeberry (Aronia melanocarpa) Pomace: Impact on Dietary Fiber Profile and Bioactive Compounds (mdpi.com)</a>
Anthocyanin Structure and pH Dependent Extraction Characteristics from Blueberries (Vaccinium corymbosum) and Chokeberries (Aronia melanocarpa) in Subcritical Water State	Kang HJ, Ko MJ, Chung MS.	Foods. 2021 Mar 3;10(3):527. doi: 10.3390/foods10030527.	<a href="#">Anthocyanin Structure and pH Dependent Extraction Characteristics from Blueberries (Vaccinium corymbosum) and Chokeberries (Aronia melanocarpa) in Subcritical Water State (nih.gov)</a>
Decontamination of chokeberries (Aronia melanocarpa L.) by cold plasma treatment and its effects on biochemical composition and storage quality of their corresponding juices	Park YJ, Puligundla P, Mok C.	Food Sci Biotechnol. 2021 Feb 5;30(3):405-411. doi: 10.1007/s10068-020-00867-8. eCollection 2021 Mar.	<a href="#">Decontamination of chokeberries ( Aronia melanocarpa L.) by cold plasma treatment and its effects on biochemical composition and storage quality of their corresponding juices - PubMed (nih.gov)</a>
Microbiological and Chemical Properties of Chokeberry Juice Fermented by Novel Lactic Acid Bacteria with Potential Probiotic Properties during Fermentation at 4 °C for 4 Weeks	Bontsidis C, Mallouchos A, Terpou A, Nikolaou A, Batra G, Mantzourani I,	Foods. 2021 Apr 3;10(4):768. doi: 10.3390/foods10040768.	<a href="#">Microbiological and Chemical Properties of Chokeberry Juice Fermented by Novel Lactic Acid Bacteria with Potential Probiotic Properties during Fermentation at 4 °C for 4 Weeks (nih.gov)</a>



	Alexopoulos A, Plessas S.		
Aronia berry polyphenols have matrix-dependent effects on the gut microbiota	Liu X, Martin DA, Valdez JC, Sudakaran S, Rey F, Bolling BW.	Food Chem. 2021 Oct 15;359:129831. doi: 10.1016/j.foodchem. 2021.129831. Epub 2021 Apr 20.	<a href="#">Aronia berry polyphenols have matrix-dependent effects on the gut microbiota - ScienceDirect</a>
How Do the Different Types of Carrier and Drying Techniques Affect the Changes in Physico-Chemical Properties of Powders from Chokeberry Pomace Extracts?	Michalska- Ciechanowska A, Hendrysiak A, Brzezowska J, Wojdyło A, Gajewicz-Skretna A.	Foods. 2021 Aug 12;10(8):1864. doi: 10.3390/foods10081 864.	<a href="#">How Do the Different Types of Carrier and Drying Techniques Affect the Changes in Physico-Chemical Properties of Powders from Chokeberry Pomace Extracts? (nih.gov)</a>
Sustainable food processing of selected North American native berries to support agroforestry	Ravichandran KS, Krishnaswamy K.	Crit Rev Food Sci Nutr. 2021 Nov 11:1- 26. doi: 10.1080/10408398.2 021.1999901. Online ahead of print.	<a href="#">Full article: Sustainable food processing of selected North American native berries to support agroforestry (tandfonline.com)</a>