

首页 文章 期刊 投稿 预印 会议 书籍 新闻 合作 智库 我们

首页 >> 工程技术 >> 化学工程与技术 >>

最新文章 历史文章 检索 领域 编委 投稿须知 文章处理费

0

HJCET >> Vol. 4 No. 1 (January 2014)

莲房原花青素的提取分离工艺概述

Summary of the Extracion and Separation of Procyanidins from Lotus Seed Pot

全文下载: [PDF\(304KB\)](#) [HTML](#) PP.1-5 DOI: [10.12677/HJCET.2014.41001](#)

下载量: 2,151 浏览量: 10,508

作者:

陈卫航,冯彬彬: 郑州大学化工与能源学院, 郑州

569,725

关键词:

莲房; 原花青素; 提取; 分离; Lotus Seed Pot; Procyanidins; Extract; Separate

264,771

摘要:

莲房原花青素以其显著的抗氧化效果和特有的生物活性及药理作用引起了世界各国各个领域科学家的广泛关注。本文考察了几种比较常用的莲房原花青素的提取及分离纯化方法, 对它们的优劣效果依次做了分析, 为莲房原花青素的深入研究和莲资源的综合利用提供了理论依据和实验基础。

More and more researchers in all kinds of fields have paid more attention to lotus seed pot procyanidins owing to their potent antioxidant effect, characteristic biological activities and pharmacological activities. The theory represents some common extraction, separation and purification methods of lotus seed pot procyanidins and analyses their merits and demerits. All of these studied results provide a theoretical basis and experimental basis for in-depth study and comprehensive utilization of lotus seed pot resources.


文章引用:


陈卫航, 冯彬彬. 莲房原花青素的提取分离工艺概述[J]. 化学工程与技术, 2014, 4(1): 1-5.

<http://dx.doi.org/10.12677/HJCET.2014.41001>

参考文献

- [1] Xu, J.Q., Rong, S. and Xie, B.J. (2009) Rejuvenation of anti-oxidant and cholinergic systems contributes to the effect of pro-cyanidins extracted from the lotus seedpod ameliorating memory impairment in cognitively impaired aged rats. *European Neuropsychopharmacology*, 19, 851-860.
- [2] Ferreira, D., Marais, J.P.J. and Coleman, C.M. (2010) Proanthocyanidins: Chemistry and biology. *Comprehensive Natural Products II*, 6, 605-661.
- [3] Nandakumar, V., Singh, T. and Katiyar, S. (2008) Multi-targeted prevention and therapy of cancer by proanthocyanidins. *Cancer Letter*, 269, 378-387.
- [4] Wu, Q., Chen, H.Y. and Lv, Z.J. (2013) Oligomeric procyanidins of lotus seedpod inhibits the formation of advanced glycation end-products by scavenging reactive carbonyls. *Food Chemistry*, 138, 1493-1502.
- [5] Pekic, B., Kovac, V., Alonso, E., et al. (1998) Study of the extraction of proanthocyanidins from grape seeds. *Food Chemistry*, 61, 201-206.
- [6] 李春阳, 许时婴, 王璋 (2004) 从葡萄废弃物中提取分离多酚类生物活性物质. *食品科技*, 6, 88-93.
- [7] 谭美婷 (2012) 莲房原花青素的提取与分离纯化工艺研究. 硕士论文, 郑州大学, 郑州, 1-3.
- [8] Teng, H., Jo, I.H. and Chol, Y.H. (2010) Optimization of ultrasonic-assisted extraction of phenolic compounds from Chinese quince (*Chaenomeles sinensis*) by response surface methodology. *Journal of the Korean Society for Applied Biological Chemistry*, 53, 618-625.
- [9] Wang, L., Wang, Z. and Li, X. (2013) Optimization of ultrasonic-assisted extraction of phenolic antioxidants from *Malus baccata* (Linn.) Borkh. using response surface methodology. *Separation Science*, 36, 1652-1658.
- [10] Wang, X.S., Wu, Y.F. and Chen, G.Y. (2013) Optimisation of ultrasound assisted extraction of phenolic compounds from *Sparganii rhizoma* with response surface methodology. *Ultrasonics Sonochemistry*,

 推荐给个人

 推荐给图书馆

- [乙醇提取“巨峰”葡萄皮中的原花青素...](#)
- [亚临界流体1,1,1,2-四氟乙...](#)
- [花青素复合饮料的工艺研究](#)
- [表面活性剂——超声提取莲子心总生...](#)
- [黄花梨叶片总黄酮提取工艺研究](#)

千人智库

科研出版社

开放图书馆

千人杂志

教育杂志

第三届绿色化学与技术国际会议

(ICGCT 2018)



第四届有机化学国际研讨会(ICOC)

2 联系我们

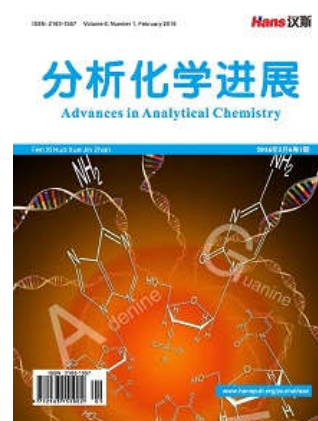
20, 846-854.

- [11] Carrera, C., Ruiz-Rodriguez, A. and Palma, M. (2012) Ultrasound-assisted extraction of phenolic compounds from grapes. *Analytica Chimica Acta*, 732, 100-104.
- [12] Prado, J.M., Dalmolin, I. and Carareto, N.D.D. (2012) Supercritical fluid extraction of grape seed: Process scale-up, extract chemical composition and economic evaluation. *Journal of Food Engineering*, 109, 249-257.
- [13] Yilmaz, E.E., Ozvural, E.B. and Vural, H. (2011) Extraction and identification of proanthocyanidins from grape seed (*Vitis Vinifera*) using supercritical carbon dioxide. *The Journal of Supercritical Fluids*, 55, 924-928.
- [14] Zhang, Y., Zheng, B.D. and Tian, Y.T. (2012) Microwave-assisted extraction and anti-oxidation activity of polyphenols from lotus (*Nelumbo nucifera Gaertn.*) seeds. *Food Science and Biotechnology*, 21, 1577-1584.
- [15] 段玉清, 闫永胜, 张海晖等 (2009) 莲房多酚的微波辅助提取技术. *江苏大学学报(自然科学版)*, 5, 437-440.
- [16] 黎海彬, 王邑, 李俊芳等 (2005) 微波辅助提取技术在天然产物提取中的应用. *现代食品科技*, 3, 148-150.
- [17] 周芸 (2012) 莲房原花青素制备工艺及其抗氧化活性研究. 硕士论文, 浙江大学, 杭州, 3-7.
- [18] 李绮丽, 吴卫国, 彭芳刚等 (2012) 莲子皮原花青素测定方法的研究. *现代食品科技*, 2, 241-245.
- [19] 傅武胜, 蔡一新, 林丽玉等 (2001) 铁盐催化比色法测定葡萄籽提取物中的原花青素. *食品发酵工业*, 10, 57-61.
- [20] 冯建光 (2003) 葡萄籽提取物中有效成分不同测定方法的比较. *中国食品添加剂*, 5, 100-103.
- [21] Emuri, A., Stanilas, G.D. and Jean, C.A. (2010) Liquid-liquid extraction: Theory, applications and difficulties. *Annales de Toxicologie Analytique*, 22, 148-150.
- [22] 杭烨超, 李方实 (2004) 葡萄籽中主要成分提取方法的研究. *化工时刊*, 9, 1-3.
- [23] 吕丽爽, 曹栋 (2001) 脱脂葡萄籽中低聚原花青素的提取. *无锡轻工大学学报*, 2, 208-210.
- [24] 侯相林, 邓天昇, 齐永琴 (2009) 一种提取分离原花青素的方法. 中国专利: CN101565414A.
- [25] 苏宝根, 任其龙, 何钊等 (2005) 一种高含量原花青素的制备方法. 中国专利: CN1603320.
- [26] 魏孝义, 谢海晖, 周文华等 (2000) 原花青素的制备工艺. 中国专利: CN1273985A.
- [27] Song, Y.H. (2011) Adsorption kinetics of grape seed procyanidins on macroporous adsorbent resin. *International Conference on Chemical, Material and Metallurgical Engineering*, Beihai.
- [28] Song, Y.H. and Zhang, G.Z. (2011) Adsorption of grape seed procyanidins on macroporous adsorbent resin: Isotherms and thermodynamics. *International Conference on Chemical, Material and Metallurgical Engineering*, Beihai.
- [29] 段玉清, 张海晖, 周密 (2009) 大孔吸附树脂对莲房原花青素吸附纯化性能的研究. *离子交换与吸附*, 2, 114-120.
- [30] 罗冠中 (2006) 原花青素的提取、分离及抗氧化性、稳定性的研究. 硕士论文, 天津科技大学, 天津, 30-35.
- [31] 崔倩, 蒋益虹, 戴蕾等 (2011) 莲房原花青素的提取纯化技术研究. *食品工业科技*, 8, 238-240.
- [32] 吴朝霞, 孟宪军, 吴朝晖 (2005) 聚酰胺柱层析提纯原花青素及其产物清除OH自由基能力的研究. *食品科学*, 8, 113-116.
- [33] 何钊, 任其龙. (2004) 层析法分离葡萄籽中原花青素的研究. *食品科学*, 8, 70-73.
- [34] 解红艳, 陈昕 (2002) Sephadex LH-20(Pharmadex LH-20)在天然产物提取中的应用. 中国药学会学术年会.
- [35] 徐德平, 孙芸, 谷文英等 (2005) 葡萄籽原花青素二聚体的提取分离与结构鉴定. *中草药*, 2, 180-182.
- [36] 余红军, 郑生宏, 李立祥 (2012) 油茶籽壳原花青素的分离纯化. *食品与发酵工业*, 9, 196-199.

目前所有接线客服均为离线状态。您可以，简单填写信息与问题，并向我们发送一封电子邮件，我们将会尽快回复您。

第

2018)



联系我们

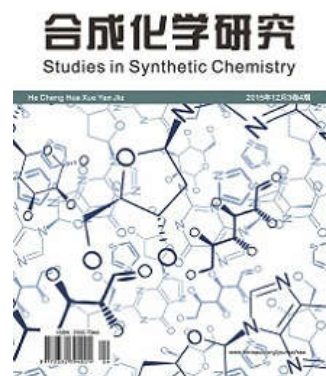
目前所有接线客服均为离线状态。您可以，简单填写信息与问题，并向我们发送一封电子邮件，我们将会尽快回复您。

姓名

邮箱

问题描述

发送



版权所有：汉斯出版社 (Hans Publishers)
Copyright © 2018 Hans Publishers Inc. All rights reserved.

联系我们