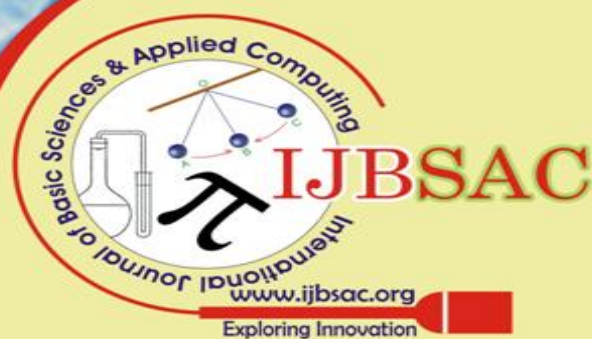
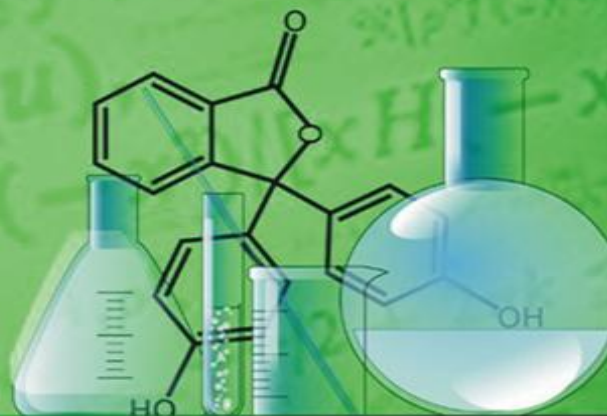
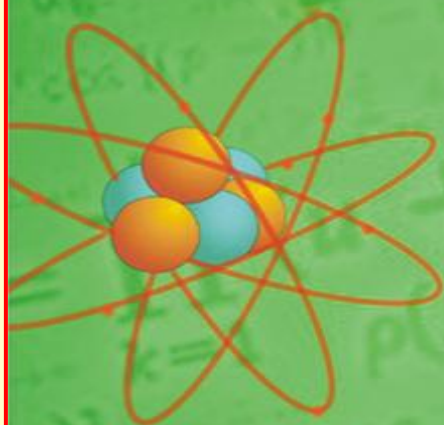


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Authors: Mohammed Golam Rasul**Paper Title:** Extraction, Isolation and Characterization of Natural Products from Medicinal Plants

Abstract: Natural Products from medicinal plants either as pure or as a standardized extracts provide unlimited opportunities for new drugs because of the unmatched availability of chemical constituents. Since ancient times, natural products have been utilized to treat and cure chronic diseases like cancer, diabetes, asthma, anti-inflammatory, analgesic and as alternatives for hormone replacement therapy worldwide. According to the World Health Organization (WHO), more than 80% of the world's population relies on traditional medicine for their primary healthcare needs. Despite their widespread existence, the variety of bioactive natural products in natural medicines are not sufficient. Today, it is very crucial to develop effective and selective methods for the extraction and isolation of new natural products. The focus of this review paper is to provide a comprehensive view on the analytical methodologies, which include extraction, isolation and characterization of the natural products from medicinal plants and common phytochemical screening assays.

Keywords: Bioactive Compounds, Extraction Methods, Medicinal plants, Natural Products.

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2.	<p>Authors: Abdulkafi A. Al-Rafaei, Amin Saif</p> <p>Paper Title: On the Invariance Property for S–Flows in Ttopological Dynamics System</p> <p>Abstract: In this paper, we start by giving an equivalence relation on a topological space X which correspond, under the action of a topological monoid S, to the S–invariant control sets for control systems. Then we give some results about the S–invariant classes for this relation. The conditions for the existence and uniqueness of relative S–invariant classes will be given.</p> <p>Keywords: Topological monoid; S–flow; S–phase flow. AMS classification: 06F05, 76D55.</p> <p>References:</p> <ol style="list-style-type: none"> 1. B. Bohuslav, D. Alan, Dynamical systems on compact extremally disconnected spaces, Topology and its Applications, 41 (1991) 41-56. 2. B. Bohuslav, F. Frantisek, Structural properties of universal minimal dynamical systems for discrete simgroups, Amer. Math. Soc. 349 (1997) 1697-1724. 3. F. Colonius, W. Kliemann, Linear control semigroups acting on projective systems, J. of Dynamics and Differential equations, 5 (1993) 469-528. 4. J. Lawson, Flows, congruences and factorizations, Topology and its Applications, 58 (1994) 35-46. 5. H. Allen, Algebraic Topology, Cambridge University press, Cambridge, 2002. 6. M. San, P. Tonelli, Semigroup actions on homogeous spaces, Semigroup Forum, 50 (1995) 59-88. 	7-9
3.	<p>Authors: Mohammed Golam Rasul</p> <p>Paper Title: Conventional Extraction Methods Use in Medicinal Plants, their Advantages and Disadvantages</p> <p>Abstract: Medicinal plants are gaining much interest because of their use to treat and cure common as well as chronic diseases. The study on medicinal plants started with extraction procedures that play a critical role. A wide range of technologies with different methods of extraction is available nowadays. These techniques are conventional (traditional using from long ago) and Modern (developed more recently). The conventional extraction methods use solvents and require long extraction time whereas modern extraction methods have also been applied in natural products extraction. The modern extraction methods are complex, not easily available and costly whereas Conventional extraction methods are simple, easily available and low cost. A domestic application of conventional extraction is quite familiar to everybody in daily life from the making of coffee or tea at home. It is very crucial to develop effective and selective conventional extraction methods so that practitioners and researcher inspire and improve efficiency. This review presents a detailed description of the various Conventional extraction methods for better understanding and summarizes the potential, to help evaluating the suitability and economic feasibility of them. A comparison of the performance, advantage and disadvantage of these methods is also presented.</p> <p>Keywords: Conventional extraction method, medicinal plants, percolation, maceration, decoction, soxhlet extraction.</p> <p>References:</p> <ol style="list-style-type: none"> 1. R. M. Smith. (2003, June). Before the injection—modern methods of sample preparation for separation techniques. Journal of Chromatography A. 1000 (1–2), 3–27. 2. S. Sasidharan, Y. Chen, D. Saravanan, K.M. Sundram, L. Yoga Latha . (2011, October) Extraction, isolation and characterization of bioactive compounds from plants' extracts. Afr J Tradit Complement Altern Med. 8(1):1-10. 3. M.G. Rasul. (2011 December). Extraction, Isolation and Characterization of Natural Products from Medicinal Plants. International Journal of Basic Sciences and Applied Computing, 2(6), pp. 1-6. 4. K. Dua , R. Sheshala, H.A. Al-Waeli, D.K. Chellappan, G. Gupta . (2015, October). Antimicrobial Efficacy of Extemporaneously Prepared Herbal Mouthwashes. Recent patents on drug delivery & formulation. 9(3), pp. 201-205. 5. J. X. Li, Z. Y Yu. (2006, Cimicifugae rhizoma: from origins, bioactive constituents to clinical outcomes. Curr Med Chem. 13(24), pp. 2927-51. 6. J.F. Liao, Y.M Jan, S.Y. Huang, H.H. Wang, L.L. Yu and C.F. Chen. (1995, July). Evaluation with receptor binding assay on the water extracts of ten CNS-active Chinese herbal drugs, <i>Proceedings of the National science Council, Republic of China</i>. 19 (3), pp. 151-158. 7. UNESCO. Culture and Health, Orientation Texts – World Decade for Cultural Development 1988 – 1997, Document CLT/DEC/PRO –Paris, France, 1996, 129. 8. J. H. Doughari. (2012, March). Phytochemicals: Extraction Methods, Basic Structures and Mode of Action as Potential Chemotherapeutic Agents; Phytochemicals – A Global Perspective of Their Role in Nutrition and Health; www.intechopen.com. 9. S. S. Handa, S.P.S. Khanuja, G. Longo and D.D. (2008). Rakesh, Extraction Technologies for Medicinal and Aromatic Plants, 1stedn , no. 66. United Nations Industrial Development Organization and the International Centre for Science and High Technology. Italy. 10. A. Pandey, S. Tripathi.(2014 January). Concept of standardization, extraction and pre Phytochemical screening strategies for herbal drug. Journal of Pharmacognosy and Phytochemistry. 2 (5), pp. 115-119. 11. J. Azmir et al. (2013)...2013,Techniques for extraction of bioactive compounds from plant materials: A review. Journal of Food Engineering.117, pp. 426–436. https://doi.org/10.1016/j.jfoodeng.2013.01.014. 12. M. Bimakr et al. (2011, January). Comparison of different extraction methods for the extraction of major bioactive flavonoid compounds from spearmint (<i>Mentha spicata L.</i>) leaves. <i>Food and Bio products processing</i>. 89 (1), pp. 67-72. https://doi.org/10.1016/j.fbp.2010.03.002 13. D. Grigonis, P. Sivik, M. Sandahl and C. Eskilsson. (2005, March).Comparison of different extraction techniques for isolation of 	10-14

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