

Bioavailability and Analysis of Vitamins in Foods

Investigations of Phytochemical and Nutritional Composition of *Ruspolia Hypocrateriformis* Leaf

*¹Orji O. U., ¹Ibiam U. A., ¹Uraku A. J., ²Obasi O. D., ³Aloke C. E. and ⁴Awoke J. N.

- 1) Department of Biochemistry, Ebonyi State University, Abakaliki, Nigeria.
- 2) Department of Medical Laboratory Science, Ebonyi State University, Abakaliki, Nigeria.
- 3) Department of Medical Biochemistry, Federal University, Ndufu-Alike Ikwo, Ebonyi state, Nigeria.
- 4) Department of Clinical Pharmacology, University of Aberdeen, United Kingdom.

*ORJI, O. U. Department of Biochemistry, Ebonyi State University, Abakaliki, Nigeria.

E-mail: tellono@yahoo.com

ABSTRACT

Phytochemical and nutritional compositions of *Ruspolia hypocrateriformis* leaf were investigated in this study. The phytochemical, proximate and selected minerals were analyzed using standard methods whereas the concentrations of some selected vitamins were evaluated using HPLC method. The preliminary qualitative phytochemical screening revealed the presence of phenols, flavonoids, terpenoids, phlobatanins and saponins and absence of alkaloids, tannins, steroids, anthraquinones and cardiac glycosides. The quantitative values (in mg/100g) were found to be 41.42 ± 0.20 ; 3.11 ± 0.11 and 2.18 ± 0.18 for phenols, saponins, and flavonoids, respectively. Proximate analysis showed carbohydrate, proteins, crude fat, moisture, ash and crude fibre values to be 54.18 ± 0.23 , 7.40 ± 0.08 , 0.85 ± 0.02 , 13.17 ± 0.06 , 4.51 ± 0.06 , and 19.90 ± 0.24 respectively. The results of vitamin analysis (in mg/100g) revealed that the values of vitamin A, vitamin B₁, vitamin B₂, vitamin B₆, vitamin C, vitamin D and vitamin E corresponds to 125.02 ± 6.76 , 32.26 ± 0.49 , 0.42 , 20.63 , 1220.74 ± 86.86 , 62.17 ± 26.52 and 28.47 ± 11.82 , respectively. The concentrations of the minerals (in mg/100g) of phosphorus, copper, zinc, iron, calcium, potassium and sodium were 26.19, 6.20, 15.07, 14.62, 34.75, 29.52, and 38.29 respectively. This study shows that *Ruspolia hypocrateriformis* leaf phytochemicals, minerals and vitamins of considerable medicinal and nutritional benefits; suggesting that the plant could be useful in management/treatment of diseases and food supplements.

Keywords: *Ruspolia hypocrateriformis* leaf, phytochemical, proximate, vitamin, mineral, HPLC.

Vitamins in Foods: Analysis, Bioavailability, and Stability presents the latest information about vitamins and their analysis, bioavailability, and stability in foods .BOOK REVIEW. Vitamins in Foods/Analysis, Bioavailability, and Stability. By George F. M.. Ball, CRC Press, Taylor & Francis Group, Boca Raton, FL, USA, Download Citation on ResearchGate On Jan 1, , George F.M. Ball and others published Vitamins in Foods: Analysis, Bioavailability, and Stability / G.F.M.If you are looking for a ebook by G. F. M. Ball Bioavailability and Analysis of Vitamins in Foods in pdf format, then you've come to faithful site. We presented.Extraction procedures for analysis of vitamin D by liquid IU did not account for bioavailability differences as compared to all-trans-retinol.2 The.Book review: Bioavailability and Analysis of Vitamins in Foods by G.F.M. Ball, Chapman and Hall, London. J. Chromatogr. A, , , 28 May - 6 sec Read Book Online duniapelangi.com?book= Read Bioavailability and.Keywords: ascorbate, dietary vitamin C, bioavailability, animal studies, human . The gold standard for analysis of vitamin C is HPLC with.Bioavailability & Analysis of Vitamins in Food. Every country in the world is concerned with the nutritional status of its population and in utilizing.Wageningen Food & Biobased Research is specialised in biochemical analysis Research has extensive experience in the biochemical analysis of vitamins, sugars The bioavailability of compounds in cherry juice; The analysis of immune.Folates are water-soluble vitamins playing an important role in Ball, G.F.M. Bioavailability and Analysis of Vitamins in Foods; Chapman.With the increasing number of vitamin enriched nutrition and dietary At LGC we are able to provide analysis of vitamins at all levels from premixes and We offer analysis and expert interpretation, including bioavailability, dealing with.both methods in food vitamin B12 analysis. A fully automated chemiluminescence vitamin B12 analyzer with the acridinium esterlabeled vitamin B12 derivative.Evidence that vitamin K may have a role in bone and cartilage metabolism has stimulated analysis of vitamin K in foods. These food composition data are being .The latest information on vitamin analysis, bioavailability and stability in foods are presented. Discussions on the vitamins' specific attributes and absorption.the criteria. A food matrix effect in bran flakes resulted in the lower bioavailability. . Analysis and distribution of vitamin E in vegetable oils and foods. Ch. 2, In.The Regulation of Dietary Iron Bioavailability by Vitamin C: A Systematic Review and Meta-Analysis. A. Heffernan, C. Evans, M. Holmes and.Keywords: Vitamin; vitamers; bioactivity; bioavailability; analysis; databases. Most of the vitamins aspects of the nutrient analysis in foods and diet samples.Trove: Find and get Australian resources. Books, images, historic newspapers, maps, archives and more.

[\[PDF\] Experimental Design: Procedures for the Behavioral Sciences](#)

[\[PDF\] Dracula \(Collection bleue\) \(French Edition\)](#)

[\[PDF\] EDITION BREITKOPF MUNDRIY ISABEL - WER? KAFKA-FRAGMENTE - SOPRANO, PIANO Partition](#)

classique Vocale -

[PDF] Wayward Child. A Collection of Poetry

[PDF] Shawty Down to Ride for a Boss 2 (Volume 2)

[PDF] Monumentum familiae Statiliorum. Un Riesame (Libitina)

[PDF] the CULL - Blood Demon (Volume 4)