

Republic of Yemen
University of Aden

ISSN
1606-8947

University of Aden Journal
of Natural and
Applied Sciences

A Refereed Scientific Research Journal

Vol. 20

No.2

August 2016

This Journal is indexed or abstracted by CABI and other leading indexing Abstracting Services.

The views expressed in this issue are those of the authors and do not necessarily reflect the views of the Editorial Board or the policy of the University of Aden

ISSN 1606-8947

National Library Aden, No. 6/1999

All rights are reserved to the University of Aden Journal of Natural And Applied Sciences. No part of the journal may be reproduced or transmitted in any form or by any means, electronic or mechanical including photocopy, recording or via any storage or retrieval system, without a prior written permission from the Editor – in – chief.

University of Aden Journal of Natural and Applied Sciences

Editorial Board

Editor-in-Chief:

Prof. Dr. Saeed Abdulla Ba-Angood.

Editing Manager:

Prof. Dr. Mommmed Abdulla Hussein

Members:

Prof. Dr. Hussain Ahmed Bakathir.

Prof. Dr. Abdul-Rahman Alawi Bin Yahia.

Prof. Dr. Maged Gumaan Bin-Saad.

Prof. Dr. Abubaker Abdulrashid Ali Zumailan.

Associate Prof. Dr. Shawqi Abdulrahman Al-Jaroo

Secretary:

Eng. Iman Sallam Mohamed

All Correspondence Concerning this Journal should be addressed to:
Editor – in – chief – University of Aden Journal of Natural and Applied
Sciences – University of Aden, Khormaksar - P.O. Box. 6312 Aden
Republic of Yemen. Tel: 967-2-239774 Fax 967 – 2 – 239774
E-mail: uaj_nas@yahoo.com
www.uajnas.gov.ye; www.uajnas.com

Guidelines to Authors for Publication in the University of Aden Journal for Natural and Applied Sciences

- The University of Aden Journal of Natural and Applied Sciences is published three times per year (April, August and December).
- The Journal publishes basic and applied refereed research articles in the following fields of Natural and Applied Sciences:
 - Basic Sciences
 - Medical and Biological Sciences
 - Engineering and Technological Sciences
 - Agriculture and Environment Sciences
- It is essential that the article will never have been published or sent for publication elsewhere. The researcher shall send three copies including the original.
- Any manuscript submitted for publishing in the Journal will be subject to evaluation according to the established scientific rules by two highly qualified specialists in the subject matter of the research. A third one may be added to those two if necessary.
- The Editorial Board reserves all rights to make stylistic and/or grammatical changes.
- Although the referees decisions regarding suitability for publication are final, the Editorial Board reserves the right to accept or not to accept the paper for publication.
- Manuscripts will not be returned to the authors whether accepted or not.
- If the author chooses to withdraw his article after it has been assessed, he would reimburse the "Aden University Journal for Natural and Applied Sciences "the cost of reviewing the paper.
- All authors will be given one issue of the journal which their paper appeared in and 10 reprints of the published paper.
- To cover the above expenses in addition to mail expenses authors in Yemen outside the University of Aden are kindly requested to pay an amount of YR 10000 (Ten thousand Yemeni Rials) to cover some of the expenses of publishing, reviewing and editorial charges. Authors outside Yemen are kindly requested to pay \$100 (One hundred US Dollars) to be sent to the "University of Aden Journal for Natural and Applied Sciences" AC. No. 556547 , National Bank of Yemen – Aidroos Branch, Crater, Aden, Republic of Yemen.
- All manuscripts and the Journal – related correspondence should be sent to the following address:

Prof. Dr. Saeed Abdulla Ba-Angood (Editor – in – Chief)
University of Aden, Khormaksar, P.O. Box 6312
Aden – Republic of Yemen Tel: 967-2-239774 Fax. : +967 – 2 – 239774
E-mail: uaj_nas@yahoo.com
www.uajnas.gov.ye; www.uajnas.com

Rules Governing the Preparation of Manuscript for Publishing in the Journal

- 1- Each manuscript must be clearly written on a computer and in double space text on one face of the paper (size A4). A margin of 3 cm must be left on both sides of the page. The manuscript must not exceed 15 pages including the tables, diagrams, photographs and references.
- 2- The accepted paper should be submitted in its final form in a CD written in MS-WORD together with two copies of the manuscript.
- 3- The manuscript must be written in Arabic. Researchers, however, may send their work in English.
- 4- The manuscript must include :
 - a- An abstract in Arabic and English not more than 300 and 200 words, respectively. Followed by 3-5 keywords.
 - b- An Introduction.
 - c- Materials and methods of the research.
 - d- Results.
 - e- Discussion – Results and discussion could be pooled together in one section.
 - f- Acknowledgement, if necessary.
 - g- References.
- 5- The journal can also publish “ short communications ” Those, however, will not require the above classification. Such short communications do normally consist of 2-3 pages, and should be accompanied by an abstract in both languages of not more than 100 words. The journal has the right to publish the paper either as a research paper or a short communication.
- 6- Tables and diagrams must be numbered serially according to its place in the manuscript providing that each table be typed on a separate paper using the same serial number shown in the manuscript. The Table must include a plain title at the top, that interprets its contents. The contents should be written with a minimum font size 10. It is preferable that Table – related margins be appeared on the Table in the form of the upper letters starting with the letters (A) for every Table provided that the meaning of each letter be referred to at the bottom of the Table.
- 7- The diagrams, layouts and graphs must be drawn on transparent paper using black ink.
- 8- Diagram or figure explanations should be printed on separate papers. The size of each figure must range between 4x6 cm and 9x18 cm. They can also be drawn using Computer Software and placed in the text. The title of the figure or photo should be written at the bottom of each.
- 9- Only black and white photographs will be accepted. They should be clear, neat and printed on vernished shiny papers. The size of each photograph should not exceed 5x 8 cm. It is possible also to scan the photos directly in the text.
- 10- Scientific (Latin) names of the plants, animals, insects, micro-organisms ... etc must be written in italics, so as to distinguish them from the remaining of the text. The chemicals (insecticides, drugs, etc. should be given their common names and not their commercial ones.
- 11- The metric system must be used in all the measurements.
- 12- All references indicated in the manuscript must be referred to and written at the end of the manuscript in the original language in which they were written or published. All

references must be arranged alphabetically at the end of the paper and numbered. The references should be written as follows:

- References in the article must be referred to in the text as numbers and put in brackets according to their serial numbers in the reference list.
- Each reference should start with the family name of the author, and followed by forenames, or, only the initials of his first name or name of organization. Followed by the year of publication, the title of the article paper and the name of the Journal or place of publication, the volume and number of pages (16 – 20). Following given some examples of common references:

1. Articles in a Journal

AL- Hadrani, A.M., S.AL- Aulqi, and A.M.Qubati (2000). Breast cancer in Yemeni women. University of Aden Journal of Natural and Applied Sciences 4(1): 185-192.

2. Books

AL-Jaroo, Sh. and M.A. AL-Attas (1999). Manufacturing Technology. Textbook series No. (3).Aden University P&P House 211pp.

3. Chapters in a Book

Serjeant, R.B.(1974). The cultivation of cereal in mediaeval Yemen, pp 25–74 In: Arabian Studies. R.B. Serjeant and R.L. Bidwell (editors). Middle East Centre, University of Cambridge 182 pp.

4. Proceedings

Miller, A.G. and M. Ba-Zara'a (1999). The conservation status of the flora of Socotran Archipelago. pp. 92-122. In: Proceedings of the First International Scientific Symposium on Socotra Island: Present & Future 24-28 March 1996. Vol. 2. University of Aden, Aden, Yemen.

5. Theses

Salem, G.S.H. (1998). Patient satisfaction regarding medical care in public health institution, Aden Governorate. Msc. Thesis, Department of Social Medicine, Faculty of Medicine and Health Sciences, University of Aden, Aden, Yemen. 105pp.

University of Aden Journal for Natural and Applied Sciences
A Refereed Scientific Research Journal
Subscription Form

Please enter my subscription for one year------(3 issues) vol. -----.

Name: -----

Address: -----

Fax : ----- Tel :-----

Signature : ----- Date :-----

You can pay in cash or send a cheque payable in any bank in Yemen in the name of
“University of Aden Journal for Natural and Applied Sciences” AC. No. 556547 ,
National Bank of Yemen – Aidroos Branch, Crater Aden, Republic of Yemen.

- Annual Subscription (outside Yemen) :

Organizations : US \$ 50

Individuals : US \$ 25

- Local Annual Subscription

Organizations : RY 1500

Individuals : RY 800

Send the Subscription form and payment to:

Prof. Dr. Saeed Ba-Angood

Editor –in-Chief

University of Aden

Republic of Yemen –Aden

Khormaksar – P.O. Box: 6312

Tel : + 967 2 239774

Fax: + 967 2 239774

E-mail: uaj_nas@yahoo.com

www.uajnas.gov.ye; www.uajnas.com

TABLE OF CONTENTS

ENGLISH TITLES

AGRICULTURE SCIENCES

- Effect of Gamma radiation on growth of two *Vigna radiata* (L.) Wilezek cv. Local and Indian** 285
Mona Ali Nasser, Mohammed Abdullah Hussein and Othman Saad Saeed Al-Hawshabi

BIOLOGY

- Phytochemical screening and in vitro antibacterial activity of *Cissus subaphylla* and *Euphorbia spiralis* endemic in Socotra Island** 293
Nadia Hassan Al-Asbahi and Rawiya Hassan Alasbahi
- The in vitro antibacterial activity of a multierbal combination used traditionally in Aden for topical treatment of Furuncles** 305
Nadia Hassan Abdulla Al-Asbahi and Rawiya Hassan Alasbahi

CHEMISTRY

- Biodegradation of Fluoranthene by Alkaliphilic and Neutrophilic bacteria** 315
Shaif M. K. Saleh, Ahmed T. Ahmed and K.R. Gawai

ENVIRONMENT

- Evaluation of environmental hazards resulted from natural radioactivity in rocks from catchment area in Delta Tuban in Yemen** 333
Emran Eisa Saleh, Ahmed Ali Saeed Al Nagashee , Hesham Ibrahim El Kassas, Soad Abed Elmenem El Fiki and Hanan Ahmed Diab

MATHEMATICS

- On some generating functions involving Jacobi , Laguerre and Bateman polynomials of one variable** 349
Ahmed Ali Atash and Salem Salah Barahma
- Different types of decomposition for certain tensors in K^h -BR- F_n and K^h -BR- affinely connected space** 355
Khaled M. Alhamadi, Fahmi Yaseen Qasem and Meqdad Ahmed Ali
- Some properties of the generalized Gamma and Beta functions** 365
Fadhle B.F. Mohsen and Maisoon A. H. Kulib
- A general class of generating functions of biorthogonal polynomials** 377
Gamal Ali Qashash

Integral transforms and Laguerre-Gould Hopper polynomials	387
Ahmed Ali Al-Gonah and Hussein Abdulhafed Saleh	
q-Hypergeometric representations of the multiple Hurwitz Zeta function	399
Fadhle B.F. Mohsen and Fadhl S. Alsarahi	
MEDICINE	
Histopathological patterns of inflammation in benign and malignant prostatic diseases. Inflammation as risk factors for prostate cancer among Yemeni patients	409
Muna Anwer Kutb and Hussun Saeed Jezan	
Non-obstructive acute Coronary Syndrome and Khat chewing	423
Mohammed Bin Mohammed Alsaadi, Khadeja Shafiq Aman and Ahmed Saeed Almansoob	
The prevalence of bruxism among students in Faculty of Dentistry - Aden University	437
Nadra A. Ishaq, Saleh Yehya and Hanan M.Al asad	
Prevalence of teeth loss related to periodontitis among type 2 diabetic patients and non diabetic patients in Faculty of Dentistry - Aden University	445
Nadra.A.Ishaq and Mohamed Hassan Al-sakaf	
Preliminary study of chewing betel leaf and its adverse effects in Aden	455
Gamila Mohammed Abdo	
Study of prevalence risk factors, clinical pattern and outcome of acute cerebrovascular stroke patients admitted to AL-gamhouria teaching hospital	463
Osam Saeed Gabali and Balqis Al-sayeed Abdullah	
ARABIC TITLES	
AGRICULTURE SCIENCES	
Effect of some water extracts of organic fertilizers against the fungus <i>Rhizoctonia solani</i> in vitro	251
Mohamed Ali Sunaidi	
BIOLOGY	
Medicinal herbs used in the treatment of digestive system diseases at coastal area of Hadramout- Yemen	259
Salim M. Binsalman, Mohammed Saeed Bin Gadeem , Mohammed A. Hussein and Ahmed Subeet Ba –Musa	
ENGINEERING	
Sustainable building and construction in Yemen	269
Mohammed Ahmed Thabit	