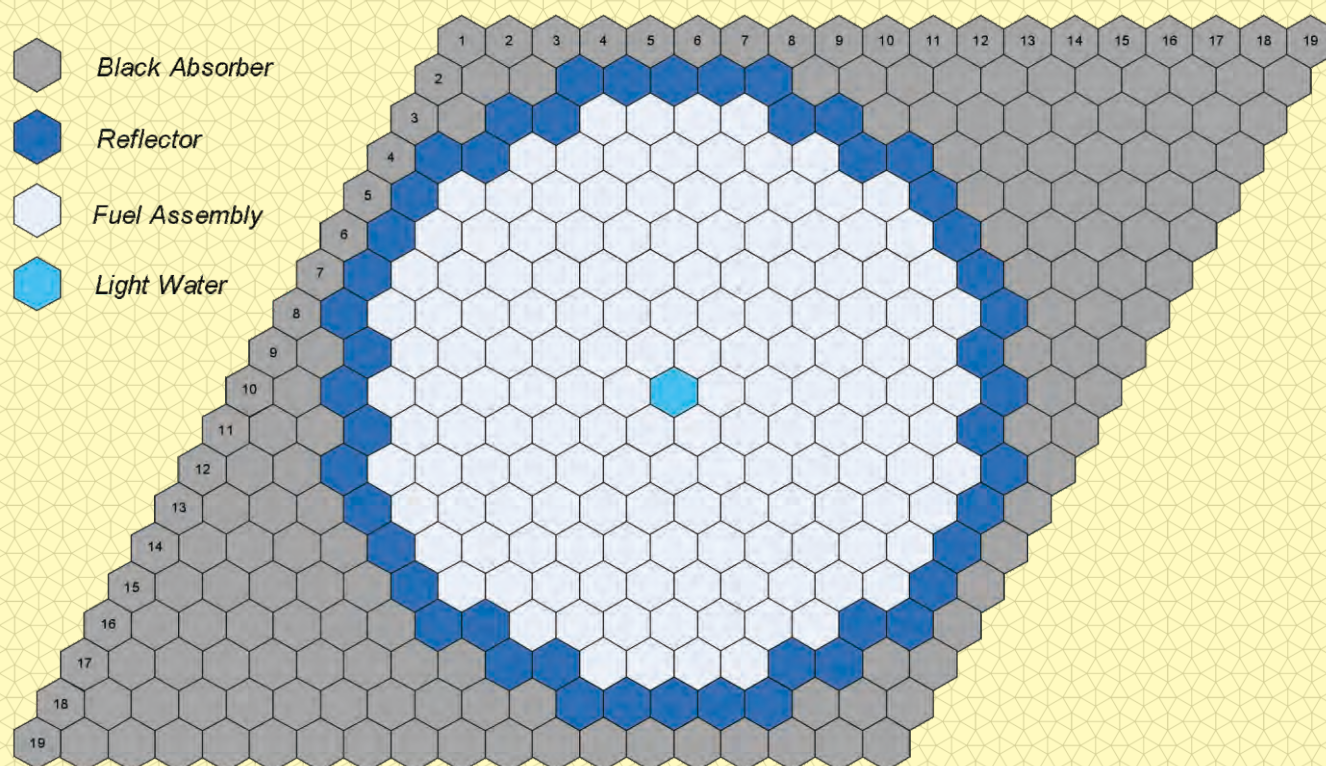




# World Journal of Nuclear Science and Technology



ISSN: 2160-6795



# Journal Editorial Board

ISSN 2161-6795 (Print) ISSN 2161-6809 (Online)

<http://www.scirp.org/journal/wjnst>

---

## Editorial Board

<b>Dr. Abdullah Aydin</b>	<b>Kirikkale University, Turkey</b>
<b>Prof. Ahmet Cengiz</b>	<b>Physics Department, Uluda University, Bursa, Turkey</b>
<b>Prof. Andrzej Grzegorz Chmielewski</b>	<b>Institute of Nuclear Chemistry, Poland</b>
<b>Prof. Abdelmajid Choukri</b>	<b>University of Ibn Tofail, Morocco</b>
<b>Dr. Jiejun Cai</b>	<b>Sun Yat-Sen University, China</b>
<b>Prof. Snežana Dragovic</b>	<b>University of Belgrade, Serbia</b>
<b>Prof. Hardy Christian Ekberg</b>	<b>Stenas Chain in Industrial Materials Recycling, Sweden</b>
<b>Prof. Shaban Ramadan Mohamed Harb</b>	<b>South Valley University, Egypt</b>
<b>Prof. Xiaolin Hou</b>	<b>Technical University of Denmark, Denmark</b>
<b>Prof. Shilun Guo</b>	<b>China Institute of Atomic Energy, China</b>
<b>Prof. Ning Liu</b>	<b>Sichuan University, China</b>
<b>Prof. Man Gyun Na</b>	<b>Chosun University, Korea (South)</b>
<b>Prof. Dragoslav Nikezic</b>	<b>University of Kragujevac, Serbia</b>
<b>Dr. Rafael Rodríguez Pérez</b>	<b>University of Las Palmas de Gran Canaria, Spain</b>
<b>Prof. K. Indira Priyadarsini</b>	<b>Bhabha Atomic Research Centre, India</b>
<b>Prof. Ing Massimo Rogante</b>	<b>Studio d'Ingegneria Rogante, Italy</b>
<b>Prof. Vitalii D. Rusov</b>	<b>Odessa National Polytechnic University, Ukraine</b>
<b>Prof. Chhanda Samanta</b>	<b>Saha Institute of Nuclear Physics, India</b>
<b>Dr. Wataru Shu</b>	<b>Japan Atomic Energy Agency, Japan</b>
<b>Prof. Kune Y. Suh</b>	<b>Seoul National University Nuclear Engineering, Korea (South)</b>
<b>Prof. João dias de Toledo Arruda-Neto</b>	<b>University of São Paulo, Brazil</b>
<b>Prof. Avesh Kumar Tyagi</b>	<b>Homi Bhabha National Institute, India</b>
<b>Prof. Mustafa Übeyli</b>	<b>TOBB University of Economics and Technology, Turkey</b>
<b>Prof. Marco Túllio Menna Barreto de Vilhena</b>	<b>Federal University of Rio Grande do Sul, Brazil</b>
<b>Prof. Shudong Yu</b>	<b>Ryerson University, Canada</b>

## Editorial Assistant

**Jessica Shao**

Scientific Research Publishing, USA E-mail: [wjnst@scirp.org](mailto:wjnst@scirp.org)



## TABLE OF CONTENTS

**Volume 1    Number 2**

**July 2011**

### **Aging and Life Management System of Reactor Pressure Vessel**

Y.-J. Liu, J. Guo, K.-K. Gu.....21

### **Delayed Neutrons Energy Spectrum Flux Profile of Nuclear Materials in Ghana's Miniature Neutron Source Reactor Core**

R. B. M. Sogbadji, R. G. Abrefah, E. Ampomah-Amoako, S. A. Birikorang, S. E. Agbemava, B. J. B. Nyarko, H. C. Odoi.....26

### **Comparison of Radionuclide's Inventories and Activities with Slightly Enriched Uranium and Plutonium Fuel in CANDU Reactors**

Z. Yasin, J. Iqbal, M. I. Shahzad.....31

### **Investigation of Gamma-Emitting Natural Radioactive Contents in Three Types of Vernonia Consumed in Cameroon**

T. B. Makon, R. M. Nemba, P. Tchokossa.....37

### **Neutronic Analysis of Generic Heavy Water Research Reactor Core Parameters to Use Standard Hydride Fuel**

S. Tashakor, F. Javidkia, M. Hashemi-Tilehnoee.....46

### **Determination of Neutron Fluxes and Spectrum Shaping Factors in Irradiation Sites of Ghana's Miniature Neutron Source Reactor (mnsr) by Activation Method after Compensation of Loss of Excess Reactivity**

R. B. M. Sogbadji, B. J. B. Nyarko, E. H. K. Akaho, R. G. Abrefah.....50

---

The figure on the front cover is from the article published in *World Journal of Nuclear Science and Technology*, 2011, Vol. 1, No. 2, pp. 46-49 by Saman Tashakor, Farshid Javidkia, Mehdi Hashemi-Tilehnoee.

# **World Journal of Nuclear Science and Technology (WJNST)**

## **Journal Information**

### **SUBSCRIPTIONS**

The *World Journal of Nuclear Science and Technology* (Online at Scientific Research Publishing, [www.SciRP.org](http://www.SciRP.org)) is published quarterly by Scientific Research Publishing, Inc., USA.

#### **Subscription rates:**

Print: \$39 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: [sub@scirp.org](mailto:sub@scirp.org)

### **SERVICES**

#### **Advertisements**

Advertisement Sales Department, E-mail: [service@scirp.org](mailto:service@scirp.org)

#### **Reprints (minimum quantity 100 copies)**

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: [sub@scirp.org](mailto:sub@scirp.org)

### **COPYRIGHT**

Copyright©2011 Scientific Research Publishing, Inc.

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as described below, without the permission in writing of the Publisher.

Copying of articles is not permitted except for personal and internal use, to the extent permitted by national copyright law, or under the terms of a license issued by the national Reproduction Rights Organization.

Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

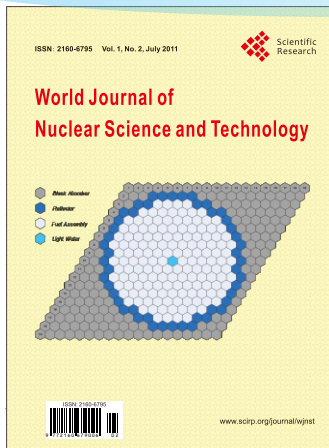
Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

### **PRODUCTION INFORMATION**

For manuscripts that have been accepted for publication, please contact:

E-mail: [wjnst@scirp.org](mailto:wjnst@scirp.org)

**Call for Papers**



# World Journal of Nuclear Science and Technology (WJNST)

ISSN 2161-6795 (Print) ISSN 2161-6809 (Online)

<http://www.scirp.org/journal/wjnst>

**World Journal of Nuclear Science and Technology (WJNST)** is a journal dedicated to providing a platform for publication of articles about nuclear science and technology and its applications.

## Subject Coverage

This journal invites original research and review papers that address the following issues. Topics of interest include, but are not limited to:

- Fuel Cycle and Isotopes
- Fusion Energy
- Global Nuclear Security Technology
- Nonreactor Nuclear Facilities
- Reactor and Nuclear Systems

We are also interested in short papers (letters) that clearly address a specific problem, and short survey or position papers that sketch the results or problems on a specific topic. Authors of selected short papers would be invited to write a regular paper on the same topic for future issues of the WJNST.

## Notes for Intending Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

## Website and E Mail

<http://www.scirp.org/journal/wjnst>

E-mail: [wjnst@scirp.org](mailto:wjnst@scirp.org)