



**FRERES MENTOURI UNIVERSITY  
CONSTANTINE 1 -ALGERIA**

# **Journal of Sciences & Technology**

Semestrial Journal of Freres Mentouri University, Constantine, Algeria



**Freres Mentouri  
University Constantine**

**Ain El-Bey Road  
Constantine 25000  
Algeria**

---

**VOLUME 04 - ISSUE 01— JUNE 2019**

---

**EISSN: .....-.....**

Phone.Fax: 213 (0) 31. 81. 12.78

Email: [revues@umc.edu.dz](mailto:revues@umc.edu.dz)

Website :<http://revue.umc.edu.dz>

# Journal of Sciences & Technology

Volume 4 N° 1 - June 2019

Semestrial Journal of Freres Mentouri Constantine 1  
University, Algeria

Journal Director

**Pr. Abdelhamid DJEKOUN**  
Rector of the University

Editorial & Publishing Director  
Chief Editor of Sciences & Technology

**Pr. Nadir BELLEL**

Editorial Board

Pr. S. RHOATI  
Pr. N. BEGHIDJA  
Pr. A. DJEMEL  
Pr. T. BOUFENDI  
Pr. A. DEBICHE  
Pr. A. BOUDJADA  
Pr. F. RAHMANI

An article proposed for publication should not be submitted  
at the same time to another journal.

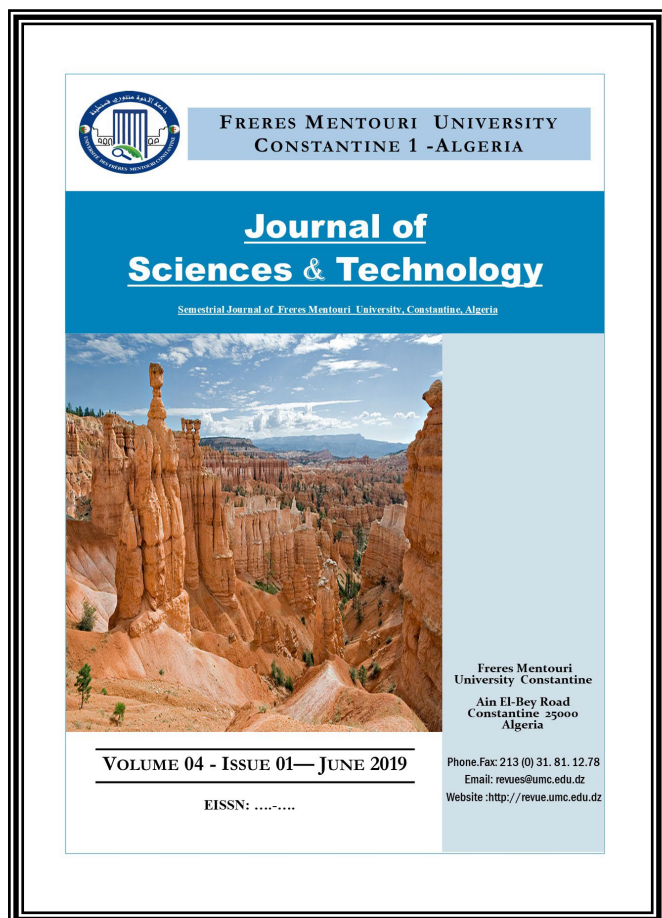
Manuscripts (original and two copies) should be sent to the  
following address:

Vice-Rectorate in charge of Post-Graduation and Scientific  
Research

Direction of Publications and Scientific Animation (15th floor)  
Constantine 1 University , Aïn-El-Bey Road, 25000 Constantine,  
ALGERIA.

Tél./Fax: 213 (0) 31.81.12.78

**e-mail: [revues@umc.edu.dz](mailto:revues@umc.edu.dz)**



### SCIENTIFIC COMMITTEE

D. AISSANI	<i>Professor, Department of Mathematics, University of Bejaia (Algeria)</i>
A. BOUCHERIF	<i>Professor, Department of Mathematics, University of Tlemcen (Algeria)</i>
H. HUDZIK	<i>Professor, Faculty of Mathematics and Computer Science, Adam Mickiewicz University (Poland)</i>
F. REBBANI	<i>Professor, Department of Mathematics, University of Annaba (Algeria)</i>
M.-S. AIDA	<i>Professor, Department of Physics, Constantine University 1 (Algeria)</i>
J.P.CHARLES	<i>Professor, Laboratory of Experimental Physics, University of Metz (France)</i>
B. BENYOUCEF	<i>Professor, Department of Physics, University of Tlemcen (Algeria)</i>
S.-E. BOUAOUD	<i>Professor, Department of Chemistry, Constantine University 1 (Algeria)</i>
L. CHETOUANI	<i>Professor, Department of Physics, Constantine University1 (Algeria)</i>
D. HAMANA	<i>Professor, Phases Transformations Laboratory, Constantine University1 (Algeria)</i>
L. OUAHAB	<i>Professor, Laboratory of Solid and Inorganic Molecular Chemistry, University of Rennes 1 (France)</i>
R. PENELLE	<i>Professor, Director of Research, Laboratory of Structural Metallurgy, University Paris-Sud (France)</i>
M. BELHAMEL	<i>Professor, Director of the Renewable Energy Development Center Algiers (Algeria)</i>
T. SEHILI	<i>Professor, Laboratory of Photochemistry and Environment, Constantine University 1 (Algeria)</i>
L. ZOUIOUECHE	<i>Professor, Laboratory of Asymmetric Synthesis and Biocatalysis, University of Annaba (Algeria)</i>
J.Y. SAILLARD	<i>Professor, Department of Chemistry, University of Rennes I (France)</i>
M. AUCOUTURIER	<i>Professor, Center for Research and Restoration of the Museums of France, the Louvre, Paris (France)</i>
M.A. DIDI	<i>Professor, Department of Chemistry, University of Tlemcen (Algeria)</i>
M. ZITOUNI	<i>Professor, Department of Mathematics, University of Boumerdès (Algeria)</i>
N. ROUAG	<i>Professor, Department of Physics, Constantine University 1 (Algeria)</i>
Y. OUKNINE	<i>Professor, Department of Mathematics, University of Cadi Ayyad, Marrakech, (Morocco)</i>
D. REYX	<i>Professor, Laboratory of Macromolecular Chemistry, University of Le Mans (France)</i>
J. BARBIER	<i>Professor, Laboratory of Chemistry, University of Poitiers (France)</i>
T. SARI	<i>Professor, Laboratory of Mathematics, University of Mulhouse (France)</i>
M. BLIDIA	<i>Professor, Department of Mathematics, University of Blida (Algeria)</i>
M. MOUSSAI	<i>Professor, Department of Mathematics, University Center of M'Sila (Algeria)</i>
S.L. REVO	<i>Professor, Taras Shevchenko National University of Kyiv, Ukraine</i>

## **INSTRUCTIONS TO AUTHORS**

### **I- Overview**

The journal Human Sciences publishes in three languages: Arabic, French and English. Two abstracts must be provided, one in the language of the article, the other in Arabic if the article is written in another language, or in French (or English) if the article is written in Arabic. Abstracts must not exceed 150 words. Unpublished articles are not returned to their authors.

### **II- Manuscripts**

The articles submitted for publication (three copies) must not exceed 20 typewritten pages (tables, figures, graphs, bibliography, ... included) with a large margin to the left (3 cm), printed on 21 x 29 paper, 7 cm (A4) with interligne of good readability. Some flexibility is allowed to authors, but they should organize the text clearly in sections such as: Introduction, Experimental Details, Results, Discussion and Conclusion. The longer articles will be published by part in successive issues, each part being determined by the authors. Authors are kindly requested to accompany the summary of their articles with the most complete possible keywords.

In order to save time and respect deadlines for publication, it is recommended that authors take care of the complete capture of their article on a computer, and send it to the journal, after they have been informed. acceptance for publication, in the form of files on CD.ROM, which will be copied by the service.

However, since the final formatting of the article is done by P.A.O. (Computer Aided Publication), the authors are asked to avoid any formatting of their text. It will be necessary to avoid stylizing it.

### **III- Bibliography**

The bibliographic references quoted in the text must include only the reference number in square brackets (ex .: [5]). If the name of the author appears in the text, it must be followed by the reference number. When the reference contains more than two authors, only the first is cited, followed by "and al".

For articles, the complete reference includes the names of the authors followed by the initials of their first names, the title of the article, the title of the periodical (in conformity with the abbreviations allowed), the volume, the number of the periodical, the year of publication and the relevant pages.

For the works, the reference must include the names of the authors followed by the initials of their first names, the complete title of the work, the volume, the volume, the first and the last page relating to the results discussed, the number of the edition if there are several, the name of the publisher, the place and the year of edition.

For scientific meetings (congresses, proceedings, ...), the reference includes the names of the authors followed by the initials of their first names, the title of the communication, the identification of the meeting, the place, the period and the pages concerned.

### **IV- Iconography**

Tables, boards, charts, maps, photographs, etc. must be provided separately, inset. They must be presented on white sheets of A4 format, individually or in groups, and have underneath the words "table" or "figure" assigned a number.

The illustrations and figures must be clear, professionally made and adequate for reproduction: a 50% reduction, if any, must lead to a suitable size and thickness of characters for good readability. Moreover, for computer-generated figures, in order to maximize contrast, the use of a laser or inkjet printer is essential.

Legends assigned their numbers must be grouped in a separate page.

The final presentation of the article will be left to the discretion of the Editorial Board.

## SUMMARY

S  
U  
M  
M  
A  
R  
Y

7

**OXFORD NANOTECHNOLOGIE: A NEW ERA FOR GENOME SEQUENCING AND PRECISION DIAGNOCTICS.**

**I. ELOUAR, A. DJEKOUN**

15

**LUMINESCENT COMPOSITES ON THE BASE OF MICROCRYSTALLINE CELLULOSE: SYNTHESIS, FABRICATION AND PROPERTIES.**

**Y. NAoui, S.G. NEDILKO, O.M. ALEKSEEV, YU.E. GRABOVSKIY, E.O. REZNICHENKO, V.P. SCHERBATSKIY, V.A. BARBASH, O.V. YASCHENKO, V.V. BOYKO, V.P. CHORNII, M.S. NEDIELKO, T. DORBANI, S. HAMAMDA**

21

**THEORETICAL STUDY OF CATHODOLUMINESCENCE OF CDTE INFLUENCE OF BULK PARAMETERS.**

**D. KENIECHE**

25

**A BAYESIAN PREDICTIVE PROCEDURE FOR TWO STEPS EXPERIMENTAL TRIALS.**

**Z. DJERIDI, H. MERABET**

35

**THE APPLICATION OF SELECTIVE HARMONIC ELIMINATION USING SIMULATED ANNEALING FOR MULTILEVEL INVERTERS.**

**F. CHABNI, R. TALEB**