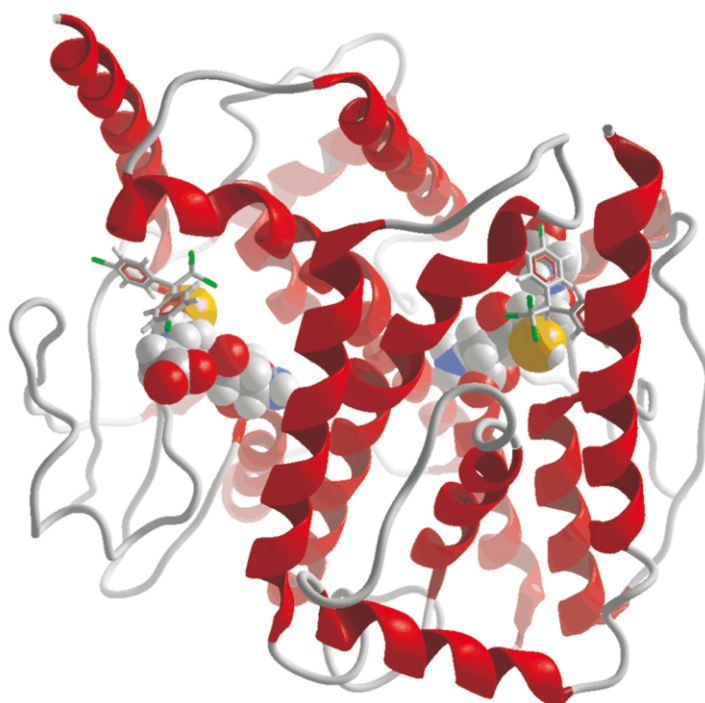




# Journal of Biophysical Chemistry



# Journal Editorial Board

ISSN 2153-036X (Print) ISSN 2153- 0378 (Online)

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

---

## Editor-in-Chief

**Prof. Cornelis J. Van der Schyf** Northeastern Ohio Universities Colleges of Medicine and Pharmacy, USA

## Editorial Board (According to Alphabet)

<b>Prof. Bilian Chen</b>	Fujian Normal University, China
<b>Dr. Huizhong Chen</b>	National Center for Toxicological Research, USA
<b>Prof. Ismail Tuncer Degim</b>	Gazi University, Turkey
<b>Prof. Gang Jin</b>	Chinese Academy of Sciences, China
<b>Dr. Rizwan Hasan Khan</b>	Aligarh Muslim University, India
<b>Prof. Alexander A. Konstantinov</b>	Moscow State University, Russia
<b>Dr. Bouzid Menaa</b>	Fluorotronics Inc., USA
<b>Prof. Majid Monajjemi</b>	Islamic Azad University, Iran
<b>Prof. Davood Nematollahi</b>	BuAli-Sina University, Iran
<b>Prof. Kazuhisa Nishizawa</b>	Teikyo University, Japan
<b>Dr. Yoshiaki Ohashi</b>	Human Metabolome Technologies, Inc, Japan
<b>Dr. Marcela Pagano</b>	Federal University of Ceará—UFC, Brazil
<b>Prof. Andrei P. Surguchov</b>	Kansas University Medical Center, USA
<b>Dr. Eric Robert Tkaczyk</b>	University of Tartu Medical School, Estonia
<b>Prof. Armen Trchounian</b>	Yerevan State University, Armenia
<b>Dr. Izabela Tworowska</b>	RadioMedix, Inc., USA
<b>Prof. Suresh C. Tyagi</b>	University of Louisville, USA
<b>Dr. Qihui Wu</b>	La Trobe University, Australia
<b>Prof. Ling Yang</b>	Chinese Academy of Sciences, China
<b>Prof. Anyun Zhang</b>	Zhejiang University, China
<b>Prof. Hailiang Zhu</b>	Nanjing University, China
<b>Prof. Erik R.P. Zuiderweg</b>	University of Michigan, USA

## Editorial Assistant

**Jing Guo** Scientific Research Publishing Email: [jbpc@scirp.org](mailto:jbpc@scirp.org)

---

## Guest reviewers

Muhammad Irfan

Ivan Gutman

## TABLE OF CONTENTS

Volume 2, Number 2, May 2011

<b>Ionization and transfection activity of n-methyl-substituted carbamoyl-cholesterol derivatives</b> S. Acheampong, M. Savva.....	53
<b>P53 protein expression and cell viability in irradiated peripheral blood mononuclear cells as bioindicators of radiosensitivity</b> M. B. Cavalcanti, A. P. G. da Silva, R. de F. e Silva, A. Amaral.....	63
<b>Study of physisorption of volatile anesthetics on phospholipid monolayers using a highly sensitive quartz crystal microbalance (HS-QCM)</b> Y. Yamamoto, Z. Shervani, T. Shimoaki, D. Yoshida, T. Yokoyama, T. Yoshida, K. Taga, H. Kamaya, I. Ueda.....	68
<b>Analytical consideration of the selectivity of oligonucleotide hybridization</b> M. R. Kabilov, D. V. Pyshnyi.....	75
<b>New oxorhenium (V) complex with an imidazol [NN]/hydantoin [SN] mixed ligand system, and radiochemical behavior of its oxotechnetium (V) complex analog</b> N. S. Al-Hokbany, R. M. Mahfouz, I. J. Al-Jammaz.....	92
<b>Flow cytometric investigation on degradation of macro-DNA by common laboratory manipulations</b> H.-B. Yoo, H.-M. Lim, I. Yang, S.-K. Kim, S.-R. Park.....	102
<b>MetalloPred: a tool for hierarchical prediction of metal ion binding proteins using cluster of neural networks and sequence derived features</b> P. K. Naik, P. Ranjan, P. Kesari, S. Jain.....	111
<b>Unfolded annealing molecular dynamics conformers for wild-type and disease-associated variants of alpha-synuclein show no propensity for beta-sheet formation</b> D. Balesh, Z. Ramjan, W. B. Floriano.....	123
<b>The molecular mechanism for DDT detoxification in <i>Anopheles gambiae</i>: a molecular docking study</b> W. N. Setzer.....	134
<b>Monitoring the autoproteolysis of HIV-1 protease by site-directed spin-labeling and electron paramagnetic resonance spectroscopy</b> J. L. Kear, L. Galiano, A. M. Veloro, L. S. Busenlehner, G. E. Fanucci.....	136
<b>Interaction of bovine serum albumin with two alkylimidazolium-based ionic liquids investigated by microcalorimetry and circular dichroism</b> L.-Y. Zhu, G.-Q. Li, F.-Y. Zheng.....	146
<b>A model study on the stacking interaction of phenanthroline ligand with nucleic acid base pairs: an <i>ab initio</i>, MP2 and DFT studies</b> P. Hazarika, B. Bezbaruah, P. Das, O. K. Medhi, C. Medhi.....	152
<b>Hydrogen bonds of interfacial water in human breast cancer tissue compared to lipid and DNA interfaces</b> H. Abramczyk, B. Brozek-Pluska, J. Surmacki, J. Jablonska-Gajewicz, R. Kordek.....	158
<b>Molecular dynamics simulations exploring the interaction between DNA and metalated bleomycin</b> V. R. Palwai , L. A. Eriksson.....	170

The figure on the front cover is from the article published in Journal of Biophysical Chemistry (JBPC), 2011, Vol. 2, No. 2, pp. 134-135, by William N. Setzer.

# **Journal of Biophysical Chemistry**

## **Journal Information**

### **SUBSCRIPTIONS**

*Journal of Biophysical Chemistry* (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.

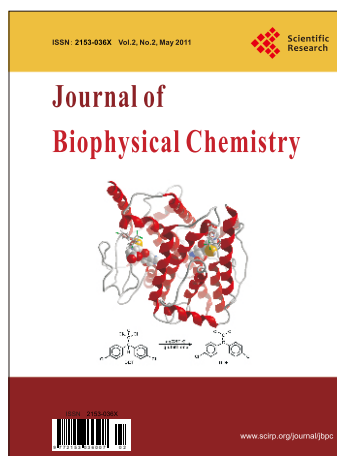
Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

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: [jbpc@scirp.org](mailto:jbpc@scirp.org)



# Journal of **Call for Papers** Biophysical Chemistry

ISSN 2153-036X (Print) ISSN 2153-0378 (Online)

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

**Journal of Biophysical Chemistry (JBPC)** is an international journal dedicated to the latest advancement in related research fields. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in different aspects of biophysical chemistry.

## Editor-in-Chief

**Prof. Cornelis J. Van der Schyf** Northeastern Ohio Universities Colleges of Medicine and Pharmacy, USA

## Editorial Board (According to Alphabet)

**Prof. Bilian Chen**  
**Dr. Huizhong Chen**  
**Prof. Ismail Tuncer Degim**  
**Prof. Gang Jin**  
**Dr. Rizwan Hasan Khan**  
**Prof. Alexander A. Konstantinov**  
**Dr. Bouzid Menaa**  
**Prof. Majid Monajjemi**  
**Prof. Davood Nematollahi**  
**Prof. Kazuhisa Nishizawa**  
**Dr. Yoshiaki Ohashi**  
**Dr. Marcela Pagano**  
**Prof. Andrei P. Surguchov**  
**Dr. Eric Robert Tkaczyk**  
**Prof. Armen Trchounian**  
**Dr. Izabela Tworowska**  
**Prof. Suresh C. Tyagi**  
**Dr. Qihui Wu**  
**Prof. Ling Yang**  
**Prof. Anyun Zhang**  
**Prof. Hailiang Zhu**  
**Prof. Erik R.P. Zuiderweg**

Fujian Normal University, China  
National Center for Toxicological Research, USA  
Gazi University, Turkey  
Chinese Academy of Sciences, China  
Aligarh Muslim University, India  
Moscow State University, Russia  
Fluorotronics Inc., USA  
Islamic Azad University, Iran  
BuAli-Sina University, Iran  
Teikyo University, Japan  
Human Metabolome Technologies, Inc, Japan  
Federal University of Ceará—UFC, Brazil  
Kansas University Medical Center, USA  
Yerevan State University, Armenia  
RadioMedix, Inc., USA  
University of Louisville, USA  
La Trobe University, Australia  
Chinese Academy of Sciences, China  
Zhejiang University, China  
Nanjing University, China  
University of Michigan, USA

## Subject Coverage

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

Biomolecular and Drug Databases  
Biomolecular Free Energy  
Biomolecular Modeling  
Biomolecular Structure  
Computational Biology  
Computational Chemistry  
Covering Dynamics  
Gene Regulation  
Graph/Network Theory  
Medicine and Neuroscience  
Molecular Docking  
Molecular Dynamics Simulation  
Molecular Evolutionary Genetics

Neural Networks  
Nucleic Acid Structure  
Patch Clamping  
Pharmacology and Physiology  
Quantum Chemistry  
Sequence Alignment  
Single Protein Dynamics  
siRNA  
Soft Matter Physics  
Stochastic Processes  
Structural Alignment  
Structural Biology  
Structure-Activity Relationships

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 **JBPC**.

## 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/jbpc>

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