

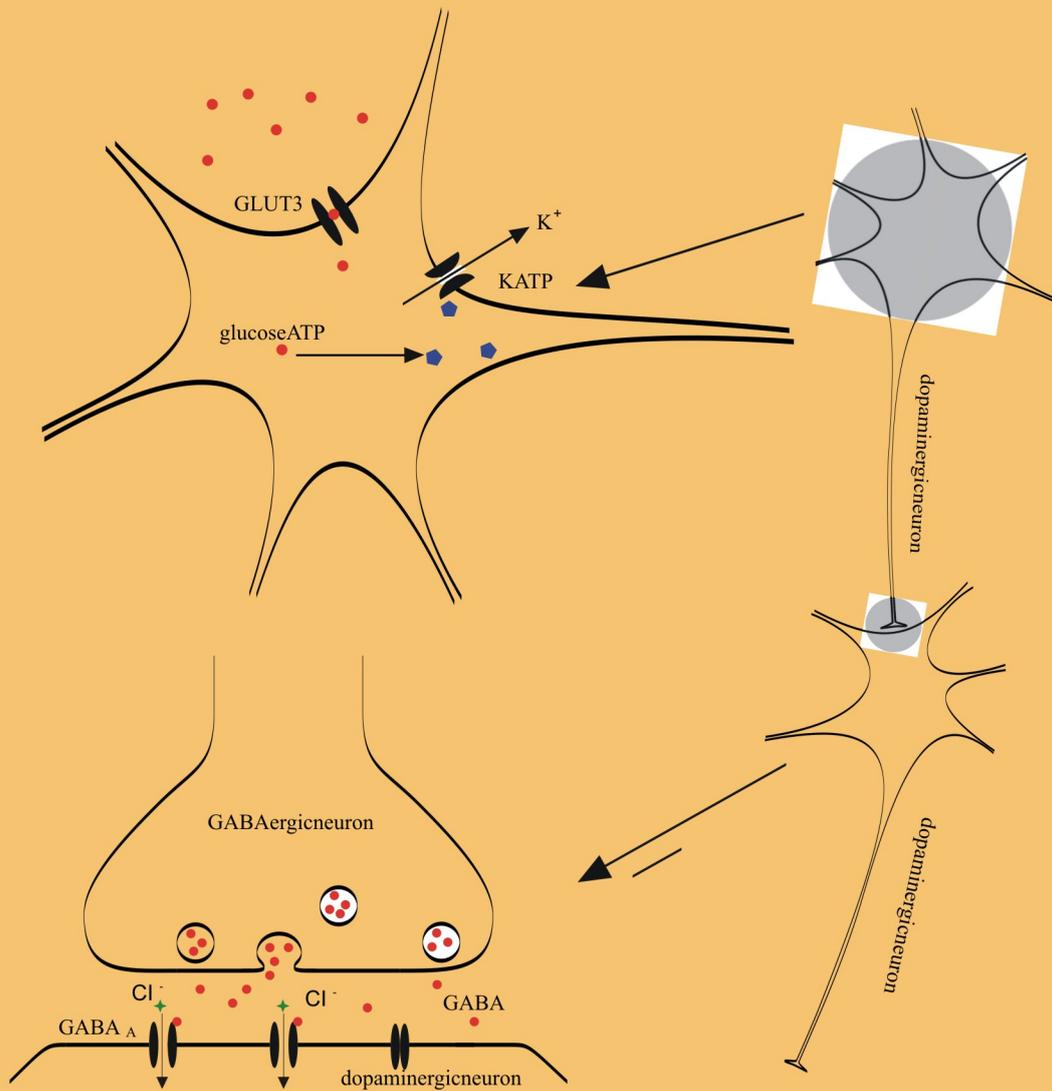


# JBiSE

ISSN: 1937-6871

Volume 4 Number 2 February 2011

Journal of Biomedical Science and Engineering



ISSN: 1937-6871



Editor-in-Chief  
Kuo-Chen Chou

## TABLE OF CONTENTS

Volume 4, Number 2, February 2011

### Simultaneous measurements of aeroacoustic sounds and wall vibration for exploring the contribution of tooth vibration in the production of sibilant sounds/s/

M. Nakamura, K. Nozaki, H. Takimoto, K. Nagamune, M. Fujigaki, S. Wada.....83

### PHYLIP-GUI-Tool (PHYGUI): adapting the functions of the graphical user interface for the PHYLIP package

Y. Eguchi.....90

### Thermal stability of proteins in the presence of aprotic ionic liquids

H. Noritomi, K. Minamisawa, R. Kamiya, S. Kato.....94

### Automatic segmentation of brain tissue based on improved fuzzy c means clustering algorithm

Z. Miao, X. M. Lin, C. C. Liu.....100

### Medical ultrasound image segmentation using genetic active contour

M. Talebi, A. Ayatollahi, A. Kermani.....105

### High resolution nuclear magnetic resonance investigation of metabolic disturbances induced by focal traumatic brain injury in a rat model: a pilot study

L. Lemaire, F. Seguin, F. Franconi, D. Bon, A. Pasco, N. Boildieu, J.-J. L. Jeune.....110

### Computer aided modeling and analysis of a new biomedical and surgical instrument

Z. Li.....119

### Development of forearm impedance plethysmography for the minimally invasive monitoring of cardiac pumping function

J. J. Wang, W. C. Hu, T. Kao, C. P. Liu, S.-K. Lin.....122

### Effects of oxygen enriched tent by a new oxygen concentration machine on blood oxygen saturation and heart rate in tibet

G. H. Shen, K. Wang, L. H. Lu, K. N. Xie, Q. L. Xu, X. M. Wu, C. Tang, E.-P. Luo.....130

### Mathematical modeling of the biphasic dopaminergic response to glucose

M. Chung, B. Göbel, A. Peters, K. M. Oltmanns, A. Moser.....136

---

The figure on the front cover is from the article published in *J. Biomedical Science and Engineering*, 2011, Vol. 4, No. 2, pp.136-145 by Matthias Chung, Britta Göbel, Achim Peters, Kerstin M. Oltmanns and Andreas Moser.

# Journal of Biomedical Science and Engineering (JBiSE)

## Journal Information

### SUBSCRIPTIONS

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

#### Subscription rates:

Print: \$50 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©2010 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: [jbise@scirp.org](mailto:jbise@scirp.org)