

Professor Ioanis Katakis
Institute of Chemistry
Chemical Engineering School
University Rovira i Virgili
Campus Sescelades, Av. Paisos Catalans 26
43007 Tarragona, Spain
Tel +34 977 55 9655
Fax +34 977 55 9667
E-mail: ioanis.katakis@urv.net

January 15, 2005

Dear Prof. Murray,

We resubmit the full article "New Reagentless Glutamate Biosensors Based on Mesophilic and Thermophilic Glutamate Dehydrogenases" to Analytical Chemistry after changing its length.

The paper describes two general new methods for the fabrication of reagentless biosensors. These methods yielded glutamate biosensors based on NAD(P)(+) dependent mesophilic bovine glutamate dehydrogenase and thermophilic glutamate dehydrogenases from *Pyrococcus furiosus*. These biosensors were fully characterized and a mathematical kinetic model was developed and applied to determine the rate limiting step in their response to glutamate. Comparative operational stability studies of the biosensors based on mesophilic and thermophilic enzymes demonstrated the advantage of the thermophilic enzyme over the mesophilic one at elevated temperatures. The comparative shelf stability study also demonstrated the advantage of the usage of the thermophilic enzyme for the fabrication of biosensors.

A list of potential reviewers for the paper is enclosed.
Thank you in advance for your cooperation.

With best wishes,

Sincerely yours,

Ioanis Katakis

The list of potential reviewers:

List of potential reviewers

Professor Elisabeth Csoregi
Biotechnology and Analytical Chemistry
Lund University
S-221 00 Lund, Sweden
Tel: 46-46-222 4274
Fax: 46-46-222 4713
E-mail: Elisabeth.Csoregi@biotek.lu.se
E.Csoregi@biotek.lu.se

Name: Richard

Family name: Luxton
Faculty of Applied Sciences Frenchay Campus
University of the West of England
Coldharbour Lane Bristol BS16 1QY
United Kingdom
Tel: 0117 328 2472
Fax: 0117 328 2904
E-Mail: richard.luxton@uwe.ac.uk

Professor Paulino Tunon Blanco
Departamento de Quimica Fisica y Analitica,
Universidad de Oviedo
Oviedo, Asturias, Spain 33006
Phone: +34-985103480, 985103482 & 985103487.
Fax: +34-985103125.
E-mail: ptb@fluor.quimica.uniovi.es