

**UNIVERSITATEA „POLITEHNICA” BUCUREȘTI  
FACULTATEA DE INGINERIE CHIMICA SI BIOTEHNOLOGII  
DEPARTAMENTUL DE INGINERIE CHIMICĂ ȘI BIOCHIMICĂ**



**Aplicarea unor tehnici de inginerie chimica la modelarea unor etape  
esențiale din metabolismul central al carbonului în culturile celulare  
cu aplicatie la optimizarea funcționării bioreactoarelor**

Application of chemical engineering concepts and tools to model some  
essential pathways of the central carbon metabolism in living cells with  
application to optimizaton of industrial bioreactors

**Conducător de doctorat  
Prof. Dr. Ing. Gheorghe MARIA**

**Doctorand  
Ing. Marina MIHALACHI (casatorită MUSCALU)**

## LISTĂ DE LUCRĂRI

**IF= factorul de impact al revistei (UEFISCDI)**

**SRI= scorul relativ de influență al revistei (UEFISCDI)**

No.	articol	IF	SRI
<u>1</u>	Maria, G., Gijiu, C.L., Maria, C., Tociu, C., <b>Mihalachi, M.</b> , Importance of considering the isotonic system hypothesis when modelling the self-control of gene expression regulatory modules in living cells, <i>Current Trends in Biomedical Engineering &amp; Biosciences</i> , 12(2), CTBEB.MS.ID.555833 (2018), <b>DOI : 10.19080/CTBEB.2018.12.555833.</b> <a href="https://juniperpublishers.com/ctbeb/">https://juniperpublishers.com/ctbeb/</a>	<b>0.822</b>	<b>0</b>
<u>2</u>	Maria, G., <b>Mihalachi, M.</b> , Gijiu, C.L., Model-based identification of some conditions leading to glycolytic oscillations in <i>E. coli</i> cells, <i>Chemical and Biochemical Engineering Quarterly</i> . IF = 1.383. ISSN= 0352-9568, 32(4), 523-533, 2018, <b>doi: 10.15255/CABEQ.2018.1300.</b> WOS:000455636700012	<b>1.383</b>	<b>0.6</b>
<u>3</u>	Maria, G., <b>Mihalachi, M.</b> , Gijiu, C.L., Chemical engineering tools applied to simulate some conditions producing glycolytic oscillations in <i>e. coli</i> cells, <i>U.P.B. Sci. Bull., Series B - Chimie</i> , 80(2), 27-38, 2018, <a href="http://www.scientificbulletin.upb.ro/">http://www.scientificbulletin.upb.ro/</a> . ISSN= 1454-2331	<b>0</b>	<b>0</b>
<u>4</u>	Maria, G., <b>Mihalachi, M.</b> , Gijiu, C.L., <i>In silico</i> optimization of a bioreactor with an <i>E. coli</i> culture for tryptophan production by using a structured model coupling the oscillating glycolysis and tryptophan synthesis, <i>Chemical Eng. Res. and Design</i> , 135, 207-221, 2018, if= 2.8,	<b>3.08</b>	<b>1.615</b>
<u>5</u>	<b>Mihalachi, M.</b> , Maria, G., Influence of pep glycolytic precursor on tryptophan synthesis dynamics in <i>e. coli</i> cells, <i>U.P.B. Sci. Bull., Series B - Chimie</i> , 81(2), 29-36, 2019, <a href="http://www.scientificbulletin.upb.ro/">http://www.scientificbulletin.upb.ro/</a> . issn= 1454-2331. wos:000487213500003	<b>0</b>	<b>0</b>

## PARTICIPĂRI LA MANIFESTĂRI ȘTIINȚIFICE

1. Mihalachi, M., **Maria, G.**, Gijiu, C.L., *In-silico* modulate glycolytic oscillator in modified *E. coli* to control bioprocesses of industrial interest, 21-th Romanian International Conference on Chemistry and Chemical Engineering RICCCCE-21, Constanta-Mamaia (Romania), 4-7 Sept. 2019.  
<http://riccce21.chimie.upb.ro>