

**UNIVERSITATEA TEHNICĂ "GHEORGHE ASACHI" DIN IAȘI
FACULTATEA DE INGINERIE CHIMICĂ ȘI PROTECȚIA MEDIULUI "CRISTOFOR SIMIONESCU"
DEPARTAMENTUL DE INGINERIE ORGANICĂ, BIOCHIMICĂ ȘI ALIMENTARĂ**

Examen de promovare pentru ocuparea postului de conferențiar, poz. 11

Disciplinele postului: Metaboliți Primari și Secundari

Procedee Moderne de Separare

**FIȘA DE VERIFICARE
a îndeplinirii standardelor minimele naționale de prezentare la examenul de promovare pe postul de
conferențiar universitar**

Candidat: **dr. bioing. Lenuța KLOETZER** / Data nașterii: [REDACTED], Funcția actuală: șef lucrări/ Data numirii în funcția actuală: 30.09.2013,
Instituția: Universitatea Tehnică "Gheorghe Asachi" din Iași, Facultatea de Inginerie Chimică și Protecția Mediului "Cristofor Simionescu"

Indicatori	Cerințe standard minimele pentru poziția de Conferențiar universitar	Modul de îndeplinire a standardelor minimele
NTOP	NTOP ≥ 2	4
NP	NP ≥ 10	16
FIC	FIC ≥ 15	59,68
NC	NC ≥ 50	438
NCO	NCO ≥ 1	2

NTOP = număr total de articole în reviste ISI situate în top 25% (zona roșie) în calitate de autor principal. Situația revistelor în top 25% se judecă pe cazul cel mai favorabil pentru candidat, fie la momentul publicării, fie la data înscrierii la concurs.

FIC = factor de impact cumulat (suma factorilor de impact ai revistelor la momentul înscrierii la concursul pentru ocuparea unei poziții didactice)

NP = număr articole în reviste ISI la care candidatul este autor principal (prim autor sau autor de corespondență)

NC = număr total de citări (din baza SCOPUS) (se exclud autocitările candidatului)

NCO = număr contracte de cercetare-dezvoltare-inovare obținute prin competiție la nivel național sau internațional ori contracte de cercetare-dezvoltare-inovare cu terți în valoare minimă echivalentă cu 10.000 Euro

Articolele pentru calculul NTOP, FIC, NP, NC se vor lua în considerare numai dacă la data publicării revistei era indexată ISI, iar la data înscrierii la concurs a candidatului articolele sunt vizibile în WoS sau dacă se prezintă ca reprinturi (inclusiv cu paginația revistei)

a) Verificarea îndeplinirii indicatorului NTOP

Referința bibliografică	
Nr. crt.	
1	L. Kloetzer, A.C. Blaga, D. Cașcaval, A.I. Galaction, Selective pertraction of dicarboxylic acids from simulated <i>Rhizopus oryzae</i> fermentation broths , Scientific Reports, vol.13, nr.1, 7170, 2023, http://doi.org/10.1038/s41598-023-34100-3 .
2	L. Kloetzer, A. Tucaliuc, A.I. Galaction, D. Cașcaval, Fractionation of dicarboxylic acids produced by <i>Rhizopus oryzae</i> using reactive extraction , Scientific Reports, vol.12, nr.1, 1-10, 2022, https://doi.org/10.1038/s41598-022-06069-y .
3	D. Cașcaval, A.I. Galaction, A. Tucaliuc, L. Kloetzer, Direct extraction of fumaric acid from <i>Rhizopus oryzae</i> suspensions- Interfacial mass transfer , Biomolecules, vol. 11, nr. 11, 1563, 2021, https://doi.org/10.3390/biom11111563 / autor corespondent.
4	L. Kloetzer, R. Ilica, A.I. Galaction, D. Cașcaval, Separation of fumaric acid by amine extraction without and with 1-octanol as phase modifier , Separation and Purification Technology, vol. 227, 115724, 2019, https://doi.org/10.1016/j.seppur.2019.115724 .
Total NTOP = 4	

b) Verificarea îndeplinirii standardului NP (numărul de articole în reviste ISI la care candidatul este autor principal): NP = 16

Referința bibliografică	
Nr. crt.	
1	A.C. Blaga, L. Kloetzer, D. Cașcaval, A.I. Galaction, A. Tucaliuc, Studies on reactive extraction of itaconic acid from fermentation broths , Processes, vol.12, nr. 4, 2024, https://doi.org/10.3390/pr12040725 (autor corespondent).
2	L. Kloetzer, A.C. Blaga, D. Cașcaval, A.-I. Galaction, Selective pertraction of dicarboxylic acids from simulated <i>Rhizopus oryzae</i> fermentation broths , Scientific Reports, vol.13, nr.1, 7170, 2023, http://doi.org/10.1038/s41598-023-34100-3 .
3	L. Kloetzer, A. Tucaliuc, A.-I. Galaction, D. Cașcaval, Fractionation of dicarboxylic acids produced by <i>Rhizopus oryzae</i> using reactive extraction , Scientific Reports, vol.12, nr.1, 1-10, 2022, https://doi.org/10.1038/s41598-022-06069-y .
4	L. Kloetzer, A. Tucaliuc, D. Cașcaval, A.I. Galaction, Influence of solvent polarity on reactive extraction of fumaric acid with Amberlite LA-2 from viscous solutions , Separation Science and Technology, vol. 57, nr. 5, pp. 698-706, 2022, https://doi.org/10.1080/01496395.2021.1931327 .
5	A.C. Blaga, A. Tucaliuc, L. Kloetzer, Applications of ionic liquids in carboxylic acids separation , Membranes, vol. 8, nr. 12, 19, 2022, https://doi.org/10.3390/membranes12080771 (autor corespondent).
6	D. Cașcaval, A.I. Galaction, A. Tucaliuc, L. Kloetzer, Direct extraction of fumaric acid from <i>Rhizopus oryzae</i> suspensions- interfacial mass transfer , Biomolecules, vol. 11, nr. 11, 1563, 2021, https://doi.org/10.3390/biom11111563 (autor corespondent).

7	L. Kloetzer, R.A. Ilica, A.I. Galaction, D. Cascaval, Separation of fumaric acid by amine extraction without and with 1-octanol as phase modifier, Separation and Purification Technology, vol. 227, 115724, 2019, https://doi.org/10.1016/j.seppur.2019.115724.
8	R.A. Ilica, L. Kloetzer, A.I. Galaction, D. Cascaval, Fumaric acid: production and separation, Biotechnology Letters, vol. 41, pp. 47–57, 2019, https://doi.org/10.1007/s10529-018-2628-y (autor corespondent).
9	L. Kloetzer, A.S. Bompă, A.C. Blaga, A.I. Galaction, D. Cașcaval, Study on rosmarinic acid separation by synergic extraction, Separation Science and Technology, vol. 53, nr. 4, pp. 645–654, 2018, https://doi.org/10.1080/01496395.2017.1398760.
10	L. Kloetzer, I.B. Petrila-Cocuz, A.I. Galaction, N. Szita, A.C. Blaga, D. Cascaval, Eco-friendly production of chemicals 1. Improvement of enzymatic production of acetophenone by direct extraction, Environmental Engineering and Management Journal, vol. 15, nr. 8, pp. 1849-1854, 2016.
11	L. Kloetzer, M. Poștaru, C. Cheptea, D. Cașcaval, A.I. Galaction, Nonconventional techniques for separation of biosynthetic amino acids, Medical-Surgical Journal – Revista Medico-Chirurgicală, vol. 118, nr. 1, pp. 250-258, 2014.
12	L. Kloetzer, M. Postaru, A.I. Galaction, A.C. Blaga, D. Cascaval, Comparative study on rosmarinic acid separation by reactive extraction with Amberlite LA-2 and D2EHPA. 1. Interfacial reaction mechanism and influencing factors, Industrial & Engineering Chemistry Research, vol. 52, nr. 38, 13785, 2013.
13	L. Kloetzer, D. Cașcaval, A.I. Galaction, Influence of solvent polarity on interfacial mechanism and efficiency of succinic acid reactive extraction with tri-n-octylamine, Chemical Engineering Communications, vol. 200, nr. 5, pp. 701–717, 2013.
14	L. Kloetzer, S.S.C. Rao, B. Kuo, Ambulatory capsule tests for assessment of GI transit and pressure, GI Motility Testing: A Laboratory and Office Handbook, pp. 121-130, 2011.
15	L. Kloetzer, W.D. Chey, R. W. McCallum et al., Motility of the antroduodenum in healthy and gastroparetics characterized by wireless motility capsule, Neurogastroenterology and Motility, vol. 22, nr. 5, pp. 527-533, 2010.
16	L. Kloetzer, A.I. Galaction, D. Cascaval, Facilitated pertraction of p-aminobenzoic acid with Amberlite LA-2 in presence of 1-octanol, Separation Science and Technology, vol. 45, nr. 10, pp. 1440–1447, 2010.
Total NP = 16	

c) Verificarea îndeplinirii standardului FIC

Nr. crt.	Referința bibliografică	FI (2024)	n _a	FI/n _a
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1.	A.C. Blaga, L. Kloetzer (autor corespondent), D. Cascaval, A.I. Galaction, A. Tucaliuc, <i>Studies on reactive extraction of itaconic acid from fermentation broths</i> , Processes, vol. 12, nr. 4, 725, 2024. https://doi.org/10.3390/pr12040725	2,8	-	2,8
2.	A.C. Blaga, E.N. Dragoi, A. Tucaliuc, L. Kloetzer , A.C. Puitel, D. Cascaval, A.I. Galaction, <i>Reactive extraction of muconic acid by hydrophobic phosphonium ionic liquids - Experimental, modelling and optimisation with Artificial Neural Networks</i> , Heliyon, vol.10, nr. 16, e36113, 2024. https://doi.org/10.1016/j.heliyon.2024.e36113	3,6	7	0,51
3.	A.C. Blaga, E.N. Dragoi, D. Gal, A.C. Puitel, A. Tucaliuc, L. Kloetzer , D. Cascaval, A.I. Galaction, <i>Selective separation of vitamin C by reactive extraction using ionic liquid: Experimental and modelling</i> , Journal of Industrial and Engineering Chemistry, vol. 133, pp. 183-194, 2024. https://doi.org/10.1016/j.jiec.2023.11.057	5,8	8	0,73
4.	L. Kloetzer , A.C. Blaga, D. Cașcaval, A.I. Galaction, <i>Selective pertraction of dicarboxylic acids from simulated Rhizopus oryzae fermentation broths</i> , Scientific Reports, vol.13, nr.1, 7170, 2023. http://doi.org/10.1038/s41598-023-34100-3	3,9	-	3,9
5.	A.C. Blaga, E.N. Dragoi, A. Tucaliuc, L. Kloetzer , D. Cascaval, <i>Folic acid ionic-liquids-based separation: Extraction and Modelling</i> , Molecules, vol. 28, nr. 8, 3339, 2023. http://doi.org/10.3390/molecules28083339	4,6	5	0,92
6.	A.C. Blaga, A. Tucaliuc, L. Kloetzer (autor corespondent), <i>Applications of ionic liquids in carboxylic acids separation</i> , Membranes, vol. 12, nr. 8, 771, 2022. https://doi.org/10.3390/membranes12080771	3,6	-	3,6
7.	A. Tucaliuc, A. Cislaru, L. Kloetzer , A.C. Blaga, <i>Strain development, substrate utilization, and downstream purification of vitamin C</i> , Processes, vol. 10, nr. 8, 1595, 2022. https://doi.org/10.3390/pr10081595	2,8	4	0,7
8.	L. Kloetzer , A. Tucaliuc, A.I. Galaction, D. Cașcaval, <i>Fractionation of dicarboxylic acids produced by Rhizopus oryzae using reactive extraction</i> , Scientific Reports, vol.12, nr.1, 1-10, 2022. https://doi.org/10.1038/s41598-022-06069-y	3,9	-	3,9
9.	L. Kloetzer , A. Tucaliuc, D. Cașcaval, A.I. Galaction, <i>Influence of solvent polarity on reactive extraction of fumaric acid with Amberlite LA-2 from viscous solutions</i> , Separation Science and Technology, vol. 57, nr. 5, pp. 698-706, 2022. https://doi.org/10.1080/01496395.2021.1931327	2,8	-	2,8
10.	D. Cașcaval, A.I. Galaction, A. Tucaliuc, L. Kloetzer (autor corespondent), <i>Direct extraction of fumaric acid from Rhizopus oryzae suspensions-interfacial mass transfer</i> , Biomolecules, vol. 11, nr. 11, 1563, 2021. https://doi.org/10.3390/biom11111563	4,8	-	4,8
11.	A.I. Galaction, A.C. Blaga, A. Tucaliuc, L. Kloetzer , D. Cascaval, <i>Modelling of ergosterol production by S. cerevisiae in presence of n-dodecane as oxygen-vector</i> , Romanian Biotechnological Letters, vol. 26, nr. 2, pp. 2464-2470, 2021. https://doi.org/10.25083/rbl/26.2/2464.2470	0,77	5	0,15
12.	L. Kloetzer , R.A. Ilica, A.I. Galaction, D. Cascaval, <i>Separation of fumaric acid by amine extraction without and with 1-octanol as phase modifier</i> , Separation and Purification Technology, vol. 227, 115724, 2019. https://doi.org/10.1016/j.seppur.2019.115724	9	-	9

13.	R.A. Ilica, L. Kloetzer (autor corespondent), A.I. Galaction, D. Cascaval, <i>Fumaric acid: production and separation</i> , Biotechnology Letters, 41, 47–57, 2019. https://doi.org/10.1007/s10529-018-2628-y	2,1	-	2,1
14.	L. Kloetzer , A.S. Bompă, A.C. Blaga, A.I. Galaction, D. Cașcaval, <i>Study on rosmarinic acid separation by synergic extraction</i> , Separation Science and Technology, vol. 53, nr. 4, pp. 645–654, 2018. https://doi.org/10.1080/01496395.2017.1398760	2,3	-	2,3
15.	A.C. Blaga, D. Cascaval, L. Kloetzer , A. Tucaliuc, A.I. Galaction, <i>Valorization of microalgal biomass</i> , Environmental Engineering and Management Journal, vol. 17, nr. 4, pp. 841–854, 2018.	0,9	5	0,18
16.	L. Kloetzer , I.B. Petrila-Cocuz, A.I. Galaction, N. Szita, A.C. Blaga, D. Cascaval, <i>Eco-friendly production of chemicals 1. Improvement of enzymatic production of acetophenone by direct extraction</i> , Environmental Engineering and Management Journal, vol. 15, nr. 8, pp. 1849–1854, 2016.	0,9	-	0,9
17.	A. I. Galaction, L. Kloetzer , B. Mihasan, A. C. Blaga, M. Turnea, D. Cascaval, <i>Improvement of enzymatic conversion of methylbenzylamine by direct extraction of acetophenone</i> , Separation Science and Technology, vol. 51, nr. 8, pp.1427-1435, 2016.	2,3	6	0,38
18.	A.I. Galaction, A.S. Bompă, L. Kloetzer , M.A. Turnea, D. Cașcaval, <i>Synergic extraction and transport of folic acid through liquid membranes</i> , Solvent Extraction and Ion Exchange, vol. 33, nr. 3, pp. 313–328, 2015.	2,1	5	0,42
19.	A.I. Galaction, M. Poștaru, L. Kloetzer , A.C. Blaga, D. Cașcaval, <i>Separation of rosmarinic acid by facilitated pertraction</i> , Food and Bioproducts Processing, vol. 94, pp. 621–628, 2015.	3,4	5	0,68
20.	M. Poștaru, L. Kloetzer , A.I. Galaction, A.C. Blaga, D. Cașcaval, <i>Comparative study on rosmarinic acid separation by reactive extraction with Amberlite LA-2 and D2EHPA 2. Kinetics of the interfacial reactions</i> , Environmental Engineering and Management Journal, vol. 13, nr. 6, pp.1473-1482, 2014.	0,9	5	0,18
21.	L. Kloetzer , M. Poștaru, C. Cheptea, D. Cașcaval, A.I. Galaction, <i>Nonconventional techniques for separation of biosynthetic amino acids</i> , Medical-Surgical Journal, vol. 118, nr. 1, pp. 250–258, 2014.	0,2	-	0,2
22.	L. Kloetzer , M. Poștaru, A.I. Galaction, A.C. Blaga, D. Cașcaval, <i>Comparative Study on Rosmarinic Acid Separation by Reactive Extraction with Amberlite LA-2 and D2EHPA. 1. Interfacial Reaction Mechanism and Influencing Factors</i> , Industrial & Engineering Chemistry Research, vol. 52, nr. 38, pp. 13785–13794, 2013.	3,9	-	3,9
23.	D. Cașcaval, M. Poștaru, A. I. Galaction, L. Kloetzer , <i>Comparative study on facilitated pertraction of succinic acid using tri-n-octylamine without and with 1-octanol</i> , Canadian Journal of chemical Engineering, vol. 91 pp. 936-943, 2013.	1,9	4	0,48
24.	D. Cașcaval, M. Poștaru, A.I. Galaction, L. Kloetzer , A.C. Blaga, <i>Fractionation of carboxylic acids mixture obtained by P. acidipropionici fermentation using pertraction with tri-n-octylamine and 1-octanol</i> , Industrial & Engineering Chemistry Research, vol. 52, nr. 7, pp. 2685-2692, 2013.	3,9	5	0,78
25.	A.I. Galaction, M. Poștaru, D. Cascaval, L. Kloetzer , <i>Selective separation of carboxylic acids obtained by succinic acid fermentation using facilitated pertraction</i> , Solvent Extraction and Ion Exchange, vol. 31, pp. 171-173, 2013.	2,1	4	0,52

26.	D. Cascaval, L. Kloetzer , A.I. Galaction, A. Vlysidis, C. Webb, <i>Fractionation of carboxylic acids mixture obtained by succinic fermentation using reactive extraction</i> , Separation Science and Technology, vol. 48, pp. 634–643, 2013.	2,3	5	0,46
27.	L. Kloetzer , D. Cascaval, A.I. Galaction, <i>Influence of solvent polarity on interfacial mechanism and efficiency of succinic acid reactive extraction with tri-n-octylamine</i> , Chemical Engineering Communications, vol. 200, nr. 5, pp. 701-717, 2013.	2	-	2
28.	M. Poștaru, M. Turnea, A.I. Galaction, L. Kloetzer , A.C. Blaga, A. Vlysidis, C. Webb, A. Cârlescu, D. Cașcaval, <i>Modeling of selective pertraction of carboxylic acids produced by Actinobacillus succinogenes fermentation</i> , Environmental Engineering and Management Journal, vol. 11, nr. 11, pp. 1901-1907, 2012.	0,9	9	0,10
29.	A.I. Galaction, L. Kloetzer , M. Turnea, C. Webb, A. Vlysidis, D. Cașcaval, <i>Succinic acid fermentation in stationary basket bioreactor with packed bed of immobilized Actinobacillus succinogenes 1. Influence of internal diffusion on substrate mass transfer and consumption rate</i> , Journal of Industrial Microbiology and Biotechnology, vol. 39, nr. 6, pp. 877-888, 2012.	3,2	6	0,53
30.	D. Cascaval, A. I. Galaction, L. Kloetzer , <i>Synergic extraction of folic acid with di(2-ethylhexyl) phosphoric acid and Amberlite LA-2</i> , Separation Science and Technology, vol. 47, nr. 6, pp. 834-841, 2012.	2,3	3	0,77
31.	A.I. Galaction, R. Rotaru, L. Kloetzer , A. Vlysidis, C. Webb, M. Turnea, D. Cascaval, <i>External and internal glucose mass transfers in succinic acid fermentation with stirred bed of immobilized Actinobacillus succinogenes under substrate and product Inhibitions</i> , Journal of Microbiology and Biotechnology, vol. 12, pp. 1257–1263, 2011.	3,1	7	0,44
32.	A.I. Galaction, L. Kloetzer , D. Cascaval, <i>Influence of solvent polarity on mechanism and efficiency of formic acid reactive extraction with tri-n-octylamine</i> , Chemical Engineering and Technology, vol. 34, nr. 8, pp. 1341-1346, 2011.	1,6	3	0,53
33.	D. Cascaval, A.I. Galaction, L. Kloetzer , <i>Influence of organic phase polarity on interfacial mechanism and efficiency of acetic acid reactive extraction with tri-n-octylamine</i> , Journal of Chemical Engineering & Data, vol. 56, pp. 2521-2526, 2011.	2,1	3	0,7
34.	R. Rotaru, L. Kloetzer , A.I. Galaction, D. Cașcaval, <i>Succinic acid production using mobile bed of immobilized actinobacillus succinogenes in alginate</i> , Medical-Surgical Journal – Revista Medico-Chirurgicală, vol. 115, nr. 1, pp. 264-268, 2011.	0,2	4	0,05
35.	A.I. Galaction, L. Kloetzer , D. Cascaval, <i>Separation of p-aminobenzoic acid by reactive extraction in presence of 1-octanol as phase modifier</i> , Chemical and Biochemical Engineering Quarterly, vol. 24, nr. 2, pp. 149–157, 2010.	0,9	3	0,3
36.	D. Cascaval, A.I. Galaction, L. Kloetzer , <i>Mathematical modeling of p-aminobenzoic acid reactive extraction without and with phase modifier</i> , Romanian Biotechnological Letters, vol.15, nr. 2, pp. 5146- 5153, 2010.	0,76	3	0,25
37.	L. Kloetzer , A. I. Galaction, D. Cascaval, <i>Facilitated pertraction of p-aminobenzoic acid with Amberlit LA-2 in presence of 1-octanol</i> , Separation Science and Technology, vol. 45, pp. 1440–1447, 2010.	2,3	-	2,3

38.	L. Kloetzer , W. D. Chey, R. W. McCallum et al., Motility of the antroduodenum in healthy and gastroparetics characterized by wireless motility capsule, Neurogastroenterology & Motility, vol. 22, nr. 5, pp. 527–533, 2010.	3,35	-	3,35
39.	L. Kloetzer , A. I. Galaction, D. Cașcaval, <i>Improvement of the efficiency of synergic facilitated pertraction of p-aminobenzoic acid by increasing the reextraction rate from the liquid membrane</i> , Medical-Surgical Journal – Revista Medico-Chirurgicală, 114 (1), pp. 293-308, 2010.	0,2	3	0,066
40.	D. Cașcaval, A.I. Galaction, L. Kloetzer , A.C. Blaga, Procedeu de separare a benzilmetilaminei, OSIM, RO 130964, 2020.	1	-	1
Total FIC = 59,68				

d) Verificarea îndeplinirii standardului NC - Citari pe SCOPUS

NC = 438 (fără autocitări) din baza Scopus (decembrie 2025)

e) Verificarea îndeplinirii standardului NCO, contracte de cercetare

Nr. crt.	Titlu proiect	Tip contract	Valoare	An	Funcția în proiect
1.	„Crearea unei game inovative de biscuiți pentru PALIBO CREME SRL”,	Programul Regional Nord-Est 2021-2027, Apel proiecte PR/NE/2024/P1/RSO1.1_RSO1.3/1 - Proiecte de CDI și investiții în IMM, Cod proiect: 338021, nr. contract finanțare 742/30.07.2025	343933 lei (68786 Euro)	2025	Responsabil partener TUIASI
2.	“Valorisation of biomass and safe productions”	Competiție INGENIUM Joint Research Group 2024 (https://ingenium-university.eu/results-of-the-first-call-for-ingenium-research-groups-2024/)	32000 lei (6400 euro)	2024	Director grant TUIASI
NCO = 2					

Data: 17 decembrie 2025

Candidat: Șef lucr. Dr. Bioing. Lenuța KLOETZER

