

**UNIVERSITATEA BABEȘ - BOLYAI CLUJ-NAPOCA**  
**FACULTATEA DE CHIMIE ȘI INGINERIE CHIMICĂ**  
**DEPARTAMENTUL DE INGINERIE CHIMICĂ**

**FIȘA DE VERIFICARE**

a îndeplinirii standardelor minimale de prezentare la concurs pentru abilitare

Candidat: CORMOȘ ANA-MARIA / Data nașterii: 11.06.1973

Funcția actuală: Conferențiar universitar

Instituția: Universitatea Babeș-Bolyai, Facultatea de Chimie și Inginerie Chimică

**1. Studiile universitare**

Nr. crt.	Instituția de învățământ superior și facultatea absolvită	Domeniul	Perioada	Titlul acordat
1.	Universitatea Babeș-Bolyai, Facultatea de Chimie și Inginerie Chimică	Chimie-Fizică	1.10. 1991 – 30.06.1996	Chimist-fizician
2.	Universitatea Babeș-Bolyai, Facultatea de Chimie și Inginerie Chimică	Ingineria Proceselor de Interfață	1.10.1997 - 30.06.1998	Diplomă de studii aprofundate

**2. Studiile de doctorat**

Nr. crt.	Instituția organizatoare de doctorat	Domeniul	Perioada	Titlul științific acordat
1.	Universitatea Babeș-Bolyai, Facultatea de Chimie și Inginerie Chimică	Inginerie chimică	1.10.1998 – 11.05.2005	Doctor în Inginerie Chimică

**3. Îndeplinirea standardelor minimale specifice postului**

Indicatori de performanță	Nr. min. realizări	Nr. realizări candidat
NTOP = număr total de articole în reviste ISI situate în top 25%	<b>NTOP ≥ 4</b>	<b>18</b>
NP = număr articole în reviste ISI la care candidatul este autor principal (prim autor sau autor de corespondență)	<b>NP ≥ 20</b>	<b>28</b>
FIC = factor de impact cumulat (suma factorilor de impact ale revistelor la momentul înscrierii la concursul pentru ocuparea unei poziții didactice)	<b>FIC ≥ 30</b>	<b>140</b>
NC = număr total de citări (din baza SCOPUS, se exclud autocitările candidatului)	<b>NC ≥ 120</b>	<b>764</b>
NCO = număr de contracte de dezvoltare-cercetare-inovare (valoare minimă 10000 EUR)	<b>NCO ≥ 1</b>	<b>2</b>

NTOP - număr total de articole în reviste ISI situate în top 25%

NP - număr articole în reviste ISI la care candidatul este autor principal

FIC - factor de impact cumulat

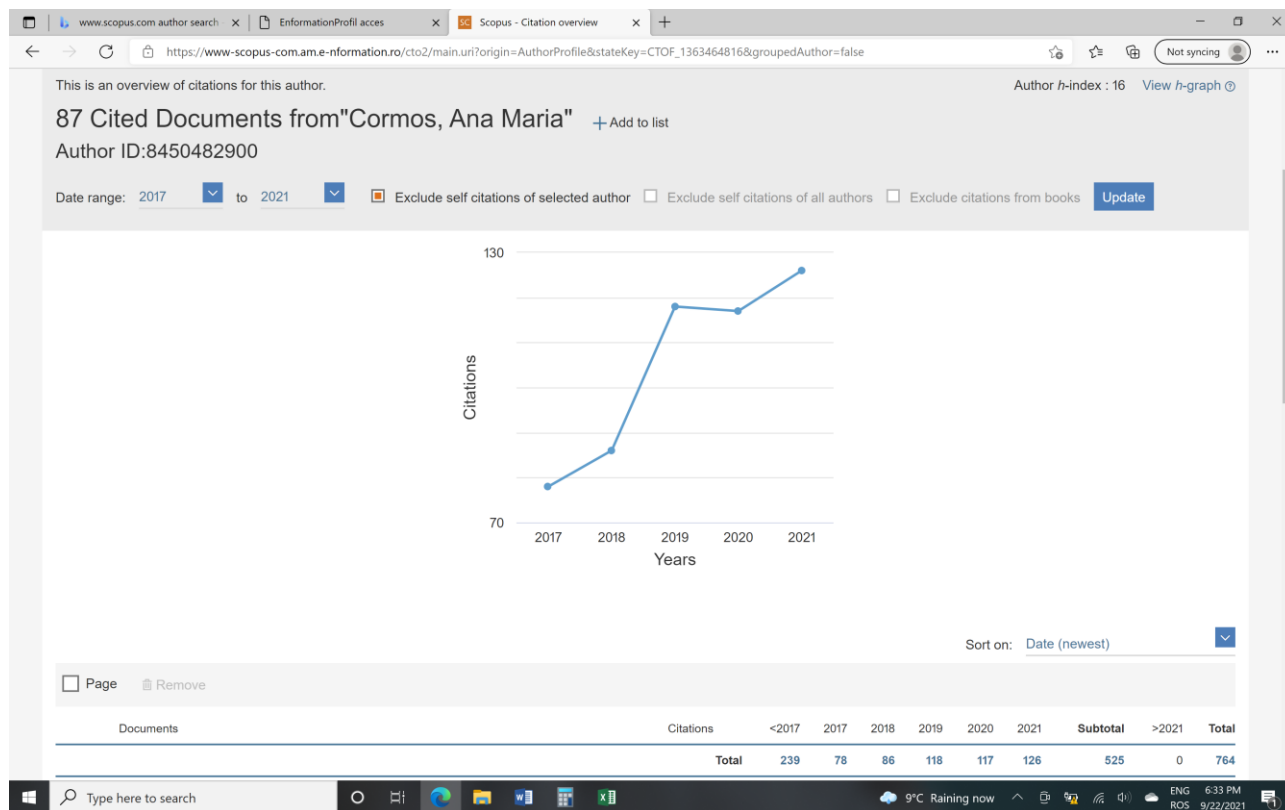
		NTOP	NP	FI (an 2020)	FIC
1	I.D. Dumbrava, C. C. Cormos, A. Imre-Lucaci, <i>A.M. Cormos</i> , CFD modelling of supercritical water reforming of glycerol for hydrogen production, International Journal of Hydrogen Energy, 2021 (in press) (autor de corespondență)	1	1	5.816	5.816
2	V.C. Sandu, <i>A.M. Cormos</i> , I.D. Dumbrava, A. Imre-Lucaci, C.C. Cormos, R. de Boer, J. Boon, S. Sluijter, Assessment of CO2 capture efficiency in packed bed versus 3D-printed monolith reactors for SEWGS using CFD modeling, International Journal of Greenhouse Gas Control, 2021, 111, 103447 (autor de corespondență)	1	1	3.738	3.738
3	C.C. Cormos, L. Petrescu, A. M. Cormos, C. Dinca. Assessment of Hybrid Solvent—Membrane Configurations for Post-Combustion CO <sub>2</sub> Capture for Super-Critical Power Plants, <i>Energies</i> 2021, 14(16), 5017			3.004	0.751
4	<i>A.M. Cormos</i> , S. Dragan, C.C. Cormos, Techno-economic and environmental assessment of flexible operation for decarbonized super-critical power plants using reactive gas—liquid absorption, Applied Thermal Engineering, 2021, 197, 117354	1	1	5.295	5.295
5	S. Szima, C. Arnaiz del Pozo, S. Cloete, P. Chiesa, A.J. Alvaro, A. M. Cormos, S. Amini., Finding synergy between renewables and coal: Flexible power and hydrogen production from advanced IGCC plants with integrated CO <sub>2</sub> capture, <i>Energy Conversion and Management</i> 2020, 231, 113866			9.709	1.387
6	F. M. Ilea, S. Dragan, <i>A. M. Cormos</i> , Assessment of mass transfer intensification potential for a CO <sub>2</sub> capture process using three-phase fluidized bed, <i>Chemical Engineering and Processing - Process Intensification</i> 2020, 157, 108115 (autor de corespondență)		1	4.237	4.237
7	<i>A.-M., Cormos</i> , I. Dumbrava, C. C. Cormos. Evaluation of techno-economic performance for decarbonized hydrogen and power generation based on glycerol thermo-chemical looping cycles, <i>Applied Thermal Engineering</i> 2020, 179, 115728.	1	1	5.295	5.295
8	V.M. Cristea, M. I. Burca, F. M. Ilea, <i>A. M. Cormos</i> . Efficient decentralized control of the post combustion CO <sub>2</sub> capture plant for flexible operation against influent flue gas disturbances, <i>Energy</i> 2020, 205,117960. (autor de corespondență)	1	1	7.147	7.147
9	<i>A. M. Cormos</i> , V. C. Sandu, C. C. Cormos. Assessment of main energy integration elements for decarbonized gasification plants based on thermo-chemical looping cycles, <i>Journal of Cleaner Production</i> 2020, 259,120834.	1	1	9.297	9.297
10	<i>A. M. Cormos</i> , S. Dragan, L. Petrescu, V. Sandu, C.C. Cormos. Techno-economic and environmental evaluations of decarbonized fossil-intensive industrial processes by reactive absorption and adsorption CO <sub>2</sub> capture systems, <i>Energies</i> 2020, 13(5),en13051268.		1	3.004	3.004

11	S. Szima, S., S.M. Nazir, S. Cloete, S., S Fagarasi, S. Amini, A.M. Cormos, C.C. Cormos, Gas switching reforming for flexible power and hydrogen production to balance variable renewables, Renewable and Sustainable Energy Reviews 2019, 110, 207-219.			14.982	2.1403
12	V. C. Sandu, C. C. Cormos, A. M. Cormos. Assessment of various water-gas-shift process configurations applied to partial oxidation energy conversion processes with carbon capture, Studia Universitatis Babes-Bolyai Chemia 2019, 64(2Tom2), 371-381. (autor de corespondență)		1	0.447	0.447
13	A.C. Soit, I. Dumbrava, I., V.C. Sandu, A. M. Cormos. Modelling and simulation of water gas shift reactor using comsol Multiphysics, Studia Universitatis Babes-Bolyai Chemia 2019, 64(4), 19-29. (autor de corespondență)		1	0.447	0.447
14	A. M. Cormos, Cormos Calin-Cristian, Techno-economic assessment of combined hydrogen & power co-generation with carbon capture: The case of coal gasification, Applied Thermal Engineering 2019, 147, 29-39.	1	1	5.295	5.295
15	D.-A., Chisalita, L. Petrescu, A.M. Cormos, C. C. Cormos, Assessing the environmental impact of an integrated steel mill with post-combustion CO <sub>2</sub> capture and storage using the LCA methodology, Journal of Cleaner Production 2019, 211, 1015-1025.			9.297	2.3243
16	A.M. Cormos, C.C. Cormos, C. Dinca Energy efficiency improvements of post-combustion CO <sub>2</sub> capture based on reactive gas-liquid absorption applied for super-critical circulating fluidized bed combustion (CFBC) power plants, Clean Technologies and Environmental Policy 2018, 20(6), 1311-1321.		1	3.636	3.636
17	D.-A Chisalita., A. M.Cormos, Dynamic simulation of fluidized bed chemical looping combustion process with iron based oxygen carrier, Fuel 2018, 214, 436-445. (autor de corespondență)	1	1	6.609	6.609
18	A.M. Cormos, C. Dinca, L. Petrescu, D. Chisalita, S. Szima, C.C. Cormos, Carbon capture and utilisation technologies applied to energy conversion systems and other energy-intensive industrial applications, Fuel 2018, 211, 883-890.	1	1	6.609	6.609
19	L. Petrescu, D. Bonalumi, G. Valenti, A.M. Cormos, C.C. Cormos, Life Cycle Assessment for supercritical pulverized coal power plants with post-combustion carbon capture and storage, Journal of Cleaner Production 2017, 157, 10-21.			9.297	1.8594
20	A.M. Cormos, C.C. Cormos, Techno-economic and environmental performances of glycerol reforming for hydrogen and power production with low carbon dioxide emissions, International Journal of Hydrogen Energy, 2017, 42 (12), 7798-7810.	1	1	7.147	7.147
21	A.M. Cormos, C.C. Cormos, Reducing the carbon footprint of cement industry by post-combustion CO <sub>2</sub> capture: Techno-economic and environmental assessment of a CCS project in Romania, Chemical Engineering Research and Design, 2017, 123, 230-239.		1	3.739	3.739
22	A.M. Cormos, C.C. Cormos, Techno-economic evaluations of post-combustion CO <sub>2</sub> capture from sub- and super-critical circulated fluidised bed combustion (CFBC) power plant, Applied Thermal Engineering, 2017, 127, 106-115.	1	1	5.295	5.295
23	A.M. Cormos, D.A. Chisalita, Contribution to modeling and simulation of iron base chemical looping combustion process, Energy Technology, 2016, 4 (10), 1179-1187.		1	3.631	3.631

24	M. Mihet, V.M. Cristea, P. S. Agachi, A.M. Cormos, M.D. Lazar, CFD simulations, experimental validation and parametric studies for the catalytic reduction of NO by hydrogen in a fixed bed reactor, 2016, RSC Advances, 6 (92), 89259-89273.			3.267	0.6534
25	R. Both, E.-H., Dulf, A. M. Cormos, Advanced control of a complex chemical process, Brazilian Journal of Chemical Engineering, 2016, 33 (1), 155-168.			1.5	0.5
26	A.M. Cormos, A.Simon, Assessment of CO <sub>2</sub> Capture by Calcium-looping Process in a Flexible Power Plant Operation Scenario, Applied Thermal Engineering, 2015, 80, 319-327.	1	1	5.295	5.295
27	A.M. Cormos, I.M. Daraban, Dynamic modeling and validation of amine-based CO <sub>2</sub> capture plant, Applied Thermal Engineering, 2015, 74, 202-209.	1	1	5.295	5.295
28	A.M. Cormos, C.C. Cormos, C. Dinca, Multi-fuel multi-product operation of IGCC power plants with carbon capture and storage (CCS), Applied Thermal Engineering, 2015, 74, 20-27.	1	1	5.295	5.295
29	A. Padurean, A. M. Cormos Economic implications of carbon capture options for power generation based on gasification, Studia Universitatis Seria Chemia, 2014, LIX (2), 113-128. (autor de corespondență)		1	0.447	0.447
30	A.M. Cormos, C.C. Cormos, Investigation of hydrogen and power co-generation based on direct coal chemical looping systems, International Journal of Hydrogen Energy, 2014, 39, 2067-2077.	1	1	5.816	5.816
31	J. Gaspar, A.M. Cormos, Dynamic modeling and absorption capacity assessment of CO <sub>2</sub> capture process, International Journal of Greenhouse Gas Control, 2012, 8, 45-55. (autor de corespondență)	1	1	3.738	3.738
32	R. Both, A.M. Cormos, P.S. Agachi, C. Festila, Dynamic modeling and validation of 2-ethyl-hexenal hydrogenation process, Computers & Chemical Engineering, 2013, 52, 100-111.			3.845	0.9613
33	C.C. Cormos, A.M. Cormos, L. Petrescu, Assessment of chemical looping-based conceptual designs for high efficient hydrogen and power co-generation applied to gasification processes, 2014, Chemical Engineering Research and Design, 92, 741-751.			3.739	1.2463
34	C.C. Cormos, A.M. Cormos, Assessment of calcium-based chemical looping options for gasification power plants, International Journal of Hydrogen Energy, 2013, 38, ( 5), 2306-2317.			5.816	2.908
35	J. Tasnadi-Asztalos, A. Imre-Lucaci, A.M. Cormos, M.D. Lazar, P.S. Agachi, Thermodynamic study and kinetic modeling of bioethanol steam reforming, Studia UBB Chemia, 2013, LVIII,4, 101-112.			0.447	0.0894
36	A.M. Cormos, J. Gaspar, Assessment of mass transfer and hydraulic aspects of CO <sub>2</sub> absorption in packed column, International Journal of Greenhouse Gas Control, 2012, 6, 201-209. (autor corespondent)	1	1	3.738	3.738
37	I. Anghel, Cormos A.M, Surrogate-based analysis with application to prediction and optimisation problems, Revista de Chimie, 2012, 63(12), 1157-1167 (IF 1,755 - an 2019).			1.755	0.8775

38	J. Gaspar, A.M. Cormos, Dynamic modeling and validation of absorber and desorber columns for post-combustion CO <sub>2</sub> capture, Computer & Chemical Engineering Journal, 2011, 35, 2044-2052. (autor de corespondență)	1	1	3.845	3.845
39	A. Padurean A., C.C. Cormos, A.M. Cormos, P.S. Agachi, Multicriterial analysis of post-combustion carbon dioxide capture using alkanolamines, Int. J. Green. Gas Control, 2011, 5, 676-685.			3.738	0.9345
40	C.C. Cormos, A.M. Cormos, S. Agachi, Power generation from coal and biomass based on Integrated Gasification Combined Cycle concept with pre- and post-combustion carbon capture methods, Asia-Pacific Journal of Chemical Engineering; 2009, 4(6), 870-877.			1.447	0.4823
41	39. A. Padurean, C.C. Cormos, A.M. Cormos, P.S. Agachi, Technical assessment of CO <sub>2</sub> capture using alkanolamines solutions, Studia Universitatis Babes-Bolyai, Seria Chemia, 2010, LV,1, 55-64.			0.447	0.1118
42	40. V. Dejeu, R. Barabas, E Bogya, A.M. Cormos, S.P. Agachi, Growth rate of hydroxyapatite obtained by precipitation, Studia Universitatis Babes-Bolyai, Seria Chemia, LV,2, 179-188, 2010.			0.447	0.0894
43	A.M. Cormos, J. Gaspar, A.M. Padurean, Modeling and Simulation of Carbon Dioxide Absorption in Monoethanolamine in Packed Absorption Columns, Studia Universitatis Babes-Bolyai, Seria Chemia, 2009, LIV(3), 37-48.		1	0.447	0.447
44	A.M. Cormos, F. Goga, J. Gaspar, D. Iridon, Software application for raw materials mixture calculation for obtain a ceramic glazes with pre-definite composition and properties, Studia Universitatis Babes-Bolyai, Seria Chemia, 2009, LIV(1), 133-144 .		1	0.447	0.447
45	C.C. Cormos, A.M. Cormos, S. Agachi, Modeling and simulation of carbonation process of ammoniacal brine solution in soda ash plant, Revista de Chimie, 2006, 57(2), 130-137.			1.755	0.585
46	C. Cormos, A.M.Cormos, S. Agachi, Modeling and simulation ammonia recovery process in soda as plant, Revista de Chimie, 2005, 56(11), pp 581-587, (IF 1,755 - an 2019).			1.755	0.585
47	Z. Nagy, A.M. Cormos, S. Agachi, Artificial Neural Network (ANN) based dynamic simulator for thermal decomposition of the limestone, on the coke consuming, Revista de Chimie, 2001, 52(6), 330-337, (IF 1,755 - an 2019).			1.755	0.585
	<b>TOTAL</b>	<b>18</b>	<b>28</b>		<b>140.118</b>

## NC – numărul total de citări



## NCO = număr de contracte de dezvoltate-cercetare-inovare

1. Integrating process intensification methods with advanced control strategies for improved performance of CO<sub>2</sub> capture systems, Project ID: PN-III-P4-ID-PCE-2020-0632, 2021-2023 (Valoarea totală a contractului: 1.198.032 lei).
2. Demonstration of Gas Switching Technology for Accelerated Scale-up of Pressurized Chemical Looping Applications (GaSTech), ERA-Net Cofound ACT, No 91/2017 (Valoarea totală a contractului: 200.000 EUR).

**Candidat,**  
Conf. Dr. Ana-Maria Cormoș