

# MarÃ-a BegoÃ±a PeÃ±a Pellicer

## List of Publications by Year in descending order

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Version: 2024-02-01

48  
papers

671  
citations

567281

15  
h-index

552781

26  
g-index

50  
all docs

50  
docs citations

50  
times ranked

546  
citing authors

#	ARTICLE	IF	CITATIONS
1	Stability of Turing patterns in the Brusselator model. <i>Physical Review E</i> , 2001, 64, 056213.	2.1	97
2	A review on CO <sub>2</sub> mitigation in the Iron and Steel industry through Power to X processes. <i>Journal of CO<sub>2</sub> Utilization</i> , 2021, 46, 101456.	6.8	83
3	Coal flame characterization by means of digital image processing in a semi-industrial scale PF swirl burner. <i>Applied Energy</i> , 2012, 94, 375-384.	10.1	61
4	Monitoring of drilling for burr detection using spindle torque. <i>International Journal of Machine Tools and Manufacture</i> , 2005, 45, 1614-1621.	13.4	48
5	Soft-computing models for soot-blowing optimization in coal-fired utility boilers. <i>Applied Soft Computing Journal</i> , 2011, 11, 1657-1668.	7.2	45
6	Decision-making methodology for managing photovoltaic surplus electricity through Power to Gas: Combined heat and power in urban buildings. <i>Applied Energy</i> , 2018, 228, 1032-1045.	10.1	39
7	Selection and competition of Turing patterns. <i>Europhysics Letters</i> , 2000, 51, 300-306.	2.0	31
8	Transverse instabilities in chemical Turing patterns of stripes. <i>Physical Review E</i> , 2003, 68, 056206.	2.1	27
9	Characterization of PF flames under different swirl conditions based on visualization systems. <i>Fuel</i> , 2013, 113, 798-809.	6.4	27
10	Experimental analysis of biomass co-firing flames in a pulverized fuel swirl burner using a CCD based visualization system. <i>Fuel Processing Technology</i> , 2015, 130, 299-310.	7.2	27
11	Investigation on co-firing of coal mine waste residues in pulverized coal combustion systems. <i>Energy</i> , 2017, 140, 58-68.	8.8	26
12	Towards soot-blowing optimization in superheaters. <i>Applied Thermal Engineering</i> , 2013, 61, 737-746.	6.0	24
13	Non-stoichiometric methanation as strategy to overcome the limitations of green hydrogen injection into the natural gas grid. <i>Applied Energy</i> , 2022, 309, 118462.	10.1	24
14	CO <sub>2</sub> Recycling in the Iron and Steel Industry via Power-to-Gas and Oxy-Fuel Combustion. <i>Energies</i> , 2021, 14, 7090.	3.1	18
15	Renewable energy sources and power-to-gas aided cogeneration for non-residential buildings. <i>Energy</i> , 2019, 181, 226-238.	8.8	17
16	Analysis of thermal resistance evolution of ash deposits during co-firing of coal with biomass and coal mine waste residues. <i>Fuel</i> , 2017, 194, 357-367.	6.4	16
17	Lab-scale experimental tests of power to gas-oxycombustion hybridization: System design and preliminary results. <i>Energy</i> , 2021, 226, 120375.	8.8	11
18	Reducing cycling costs in coal fired power plants through power to hydrogen. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 25838-25850.	7.1	10

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19	Experimental study on the effects of co-firing coal mine waste residues with coal in PF swirl burners. Energy, 2018, 157, 45-53.	8.8	8
20	Two-dimensional wave patterns near a Hopf-Wave interaction in a chemical model. European Physical Journal: Special Topics, 2007, 146, 301-311.	2.6	6
21	Improved Flexibility and Economics of Combined Cycles by Power to Gas. Frontiers in Energy Research, 2020, 8, .	2.3	6
22	Synthetic natural gas production in a 1kW reactor using Ni-Ce/Al <sub>2</sub> O <sub>3</sub> and Ru-Ce/Al <sub>2</sub> O <sub>3</sub> : Kinetics, catalyst degradation and process design. Energy, 2022, 256, 124720.	8.8	6
23	MODULATED STANDING WAVES RESULTING FROM A HOPF-WAVE INTERACTION IN A CHEMICAL MODEL. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2004, 14, 3899-3907.	1.7	3
24	IMPROVING THE TEACHING - LEARNING PROCESS USING EDUCATIONAL VIDEOS AS REUSABLE LEARNING OBJECTS (RLO) IN THE FIELD OF THERMAL ENGINEERING. EDULEARN Proceedings, 2016, , .	0.0	2
25	PHASE INSTABILITIES OF DISTORTED HEXAGONAL PATTERNS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2001, 11, 2771-2777.	1.7	1
26	Combining Flipped Classroom Model and Educational Videos for Improving Teaching-Learning Process in Thermodynamics and Thermal Engineering. Proceedings (mdpi), 2018, 2, .	0.2	1
27	Experiencia piloto de aula invertida para mejorar el proceso de enseñanza-aprendizaje en la asignatura de Termodinámica Técnica. , 0, , .		1
28	ASSESSMENT OF QUANTITATIVE AND AUTOMATED RUBRICS AS LEARNING TOOL IN ENGINEERING THERMODYNAMICS. , 2019, , .		1
29	LEARNING ANALYTICS THROUGH THE DIGITAL FOOTPRINT: RESULTS FOR ENGINEERING THERMODYNAMICS SUBJECT. EDULEARN Proceedings, 2019, , .	0.0	1
30	Use of Educational Resources and Academic Performance: Analysis and Comparison for the Degree on Engineering of Industrial Technologies. Proceedings (mdpi), 2018, 2, 1330.	0.2	0
31	EXPERIENCES IN THERMAL ENGINEERING ON SHIFTING TO ON-LINE LEARNING UNDER THE COVID-19 PANDEMIC SCENARIO. , 2021, , .		0
32	DESIGN AND DEVELOPMENT OF AN EDUCATIONAL MOBILE APPLICATION FOR ANDROID USING AUGMENTED REALITY. APPLICATION TO ENGINEERING THERMODYNAMICS. EDULEARN Proceedings, 2021, , .	0.0	0
33	PILOT EXPERIENCE FOR THE APPLICATION OF THE FLIPPED CLASSROOM IN SUBJECTS OF THE FIELD OF THERMAL ENGINEERING. , 2017, , .		0
34	DEVELOPMENT OF EDUCATIONAL VIDEOS AS REUSABLE LEARNING OBJECTS (RLO) FOR THEIR INTEGRATION INTO AN OPEN COURSEWARE (OCW) ON FUNDAMENTALS OF THERMODYNAMICS AND THERMAL ENGINEERING. , 2017, , .		0
35	Evaluación de la mejora del proceso de enseñanza-aprendizaje mediante la integración de objetos de aprendizaje reutilizables en un curso abierto OCW. , 0, , .		0
36	DEFINING QUANTITATIVE AND AUTOMATED RUBRICS FROM THE ASSESSMENT ACTIVITIES SCORES. , 2018, , .		0

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37	DEVELOPMENT OF AN OPEN COURSEWARE (OCW) WITH AUDIO-VISUAL MATERIAL TO SUPPORT THE STUDY OF THERMODYNAMICS AND THERMAL ENGINEERING. EDULEARN Proceedings, 2018, , .	0.0	0
38	LEARNING PROCESS AND SUCCESS RATES: A COMPARATIVE STUDY IN THERMAL ENGINEERING SUBJECTS. , 2018, , .		0
39	APPLICATION OF FLIPPED CLASSROOM MODEL IN THERMAL ENGINEERING: ANALYSIS AND COMPARISON OF RESULTS. , 2018, , .		0
40	IMPROVING ORAL COMMUNICATION AND TEAMWORK SKILLS IN THE FIELD OF THERMAL ENGINEERING. EDULEARN Proceedings, 2019, , .	0.0	0
41	THE FLIPPED CLASSROOM MODEL IN THE THERMAL ENGINES AND MACHINES AREA: ANALYSIS AND COMPARISON OF EXPERIENCES. EDULEARN Proceedings, 2019, , .	0.0	0
42	YOUTUBE AS A COMPLEMENTARY LEARNING TOOL TO SUPPORT THE STUDY IN THE FIELD OF THERMAL ENGINEERING. EDULEARN Proceedings, 2019, , .	0.0	0
43	Uso de YouTube como herramienta educativa de apoyo a la docencia en termodinámica e ingeniería térmica. , 0, , .		0
44	ENABLING A BETTER FLEXIBILITY DURING SELF-STUDY THROUGH YOUTUBE. , 2019, , .		0
45	ENHANCING THE ACQUISITION OF COMPETENCES THROUGH THE FLIPPED CLASSROOM MODEL. , 2019, , .		0
46	THE FLIPPED CLASSROOM MODEL IN ENGINEERING THERMODYNAMICS: COMPARISON OF EXPERIENCES IN DIFFERENT BACHELOR DEGREES. EDULEARN Proceedings, 2020, , .	0.0	0
47	RUBRIC-BASED ASSESSMENT PROCEDURE FOR MONITORING AND LEARNING PURPOSES IN ENGINEERING THERMODYNAMICS. , 2020, , .		0
48	SYSTEMATIC METHODOLOGY FOR THE DESIGN OF GAMIFICATION ACTIVITIES AND APPLICATION TO ENGINEERING DEGREES AS ACTIVE LEARNING TOOL. EDULEARN Proceedings, 2020, , .	0.0	0