

# Thomas Echterhof

## List of Publications by Year in descending order

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33  
papers

375  
citations

759233

12  
h-index

839539

18  
g-index

34  
all docs

34  
docs citations

34  
times ranked

290  
citing authors

#	ARTICLE	IF	CITATIONS
1	Review on the Use of Alternative Carbon Sources in EAF Steelmaking. <i>Metals</i> , 2021, 11, 222.	2.3	50
2	Zeolite based trace humidity sensor for high temperature applications in hydrogen atmosphere. <i>Sensors and Actuators B: Chemical</i> , 2008, 134, 171-174.	7.8	40
3	Towards CO <sub>2</sub> -neutral process heat generation for continuous reheating furnaces in steel hot rolling mills – A case study. <i>Energy</i> , 2021, 224, 120155.	8.8	23
4	Investigation on the Influence of the Arc Region on Heat and Mass Transport in an EAF Freeboard using Numerical Modeling. <i>Steel Research International</i> , 2016, 87, 15-28.	1.8	22
5	A Review of Mathematical Process Models for the Electric Arc Furnace Process. <i>Steel Research International</i> , 2021, 92, 2000395.	1.8	22
6	Increasing the sustainability of steel production in the electric arc furnace by substituting fossil coal with biochar agglomerates. <i>Ironmaking and Steelmaking</i> , 2016, 43, 564-570.	2.1	21
7	Application of fast pyrolysis char in an electric arc furnace. <i>Fuel Processing Technology</i> , 2018, 174, 61-68.	7.2	19
8	Process Improvements for Direct Reduced Iron Melting in the Electric Arc Furnace with Emphasis on Slag Operation. <i>Processes</i> , 2021, 9, 402.	2.8	17
9	Process Modeling and Simulation of Biochar Usage in an Electric Arc Furnace as a Substitute for Fossil Coal. <i>Steel Research International</i> , 2017, 88, 1600458.	1.8	16
10	Sustainable Electric Arc Furnace Steel Production: GREENEAF. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , 2013, 158, 17-23.	1.0	15
11	Heat recovery from EAF off-gas for steam generation: analytical exergy study of a sample EAF batch. <i>Ironmaking and Steelmaking</i> , 2016, 43, 581-587.	2.1	14
12	Process Modeling and Simulation of the Radiation in the Electric Arc Furnace. <i>Steel Research International</i> , 2018, 89, 1700487.	1.8	13
13	Development of an Electric Arc Furnace Simulator Based on a Comprehensive Dynamic Process Model. <i>Processes</i> , 2019, 7, 852.	2.8	12
14	Improving the Modeling of Slag and Steel Bath Chemistry in an Electric Arc Furnace Process Model. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2019, 50, 2377-2388.	2.1	10
15	Pilot-scale AC electric arc furnace plasma characterization. <i>Plasma Research Express</i> , 2019, 1, 035007.	0.9	10
16	Application and Evaluation of Mathematical Models for Prediction of the Electric Energy Demand Using Plant Data of Five Industrial-Size EAFs. <i>Metals</i> , 2021, 11, 1348.	2.3	9
17	Modelling and Simulation of the Melting Process in Electric Arc Furnaces – Influence of Numerical Solution Methods. <i>Steel Research International</i> , 2016, 87, 581-588.	1.8	8
18	Modeling and Simulation of the Off-gas in an Electric Arc Furnace. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2017, 48, 3329-3344.	2.1	8

#	ARTICLE	IF	CITATIONS
19	Investigation on the Chemical and Thermal Behavior of Recycling Agglomerates from EAF by-Products. Applied Sciences (Switzerland), 2020, 10, 8309.	2.5	8
20	On-line Analysis of Cr&lt;sub&gt;2&lt;/sub&gt;&O&lt;sub&gt;3&lt;/sub&gt; Content of the Slag in Pilot Scale EAF by Measuring Optical Emission Spectrum of Electric Arc. ISIJ International, 2017, 57, 478-486.	1.4	7
21	Fabrication of Agglomerates from Secondary Raw Materials Reinforced with Paper Fibres by Stamp Pressing Process. Applied Sciences (Switzerland), 2019, 9, 3946.	2.5	5
22	Electric Arc Length-Voltage and Conductivity Characteristics in a Pilot-Scale AC Electric Arc Furnace. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2020, 51, 1646-1655.	2.1	5
23	Application of an Off-Gas Analysing System to Control Oxidation during Stainless Steelmaking in an EAF. Steel Research International, 2010, 81, 778-783.	1.8	4
24	Nitrogen Oxide Formation in the Electric Arc Furnace&quot; Measurement and Modeling. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2012, 43, 163-172.	2.1	3
25	Calculation of View Factors in Electric Arc Furnace Process Modeling. Steel Research International, 2021, 92, 2000341.	1.8	3
26	Modeling of the Off-Gas Cooling System for an Electric Arc Furnace and Evaluation of the Heat Recovery Potential. Chemie-Ingenieur-Technik, 2016, 88, 1463-1473.	0.8	2
27	Cyanide recombination in electric arc furnace plasma. Plasma Research Express, 2021, 3, 025008.	0.9	2
28	Development of a Fast Modeling Approach for the Prediction of Scrap Preheating in Continuously Charged Metallurgical Recycling Processes. Metals, 2021, 11, 1280.	2.3	2
29	Verwendung von Biomassekarbonisaten. , 2016, , 213-346.		2
30	Measurement and Control of NOx Emissions at Two AC Electric Arc Furnaces. ISIJ International, 2011, 51, 1631-1636.	1.4	2
31	Suitability of Self&quot;Reducing and Slag&quot;Forming Briquettes for EAF Use based on Laboratory Tests. Steel Research International, 0, , 2100472.	1.8	1
32	Application of genetic algorithm to improve an electric arc furnace freeboard model based on practical data. International Journal of Engineering Systems Modelling and Simulation, 2015, 7, 244.	0.2	0
33	Modeling and Simulation of Metallurgical Processes in Ironmaking and Steelmaking. Metals, 2022, 12, 1185.	2.3	0