Mathieu PÃ©trissans

List of Publications by Year
in descending order

29 papers	2,468 citations	279798 23 h-index	477307 29 g-index
29 all docs	29 docs citations	29 times ranked	1898 citing authors

#	Article	IF	Citations
1	Progress in biomass torrefaction: Principles, applications and challenges. Progress in Energy and Combustion Science, 2021, 82, 100887.	31.2	429
2	Investigation of wood wettability changes during heat treatment on the basis of chemical analysis. Polymer Degradation and Stability, 2005, 89, 1-5.	5.8	285
3	Investigations of the reasons for fungal durability of heat-treated beech wood. Polymer Degradation and Stability, 2006, 91, 393-397.	5.8	252
4	Using Local Climate Zone scheme for UHI assessment: Evaluation of the method using mobile measurements. Building and Environment, 2015, 83, 39-49.	6.9	208
5	Catalytic effects of potassium on biomass pyrolysis, combustion and torrefaction. Applied Energy, 2019, 235, 346-355.	10.1	170
6	Control of wood thermal treatment and its effects on decay resistance: a review. Annals of Forest Science, 2016, 73, 571-583.	2.0	145
7	Investigation of the chemical modifications of beech wood lignin during heat treatment. Polymer Degradation and Stability, 2010, 95, 1721-1726.	5.8	131
8	Hygroscopic transformation of woody biomass torrefaction for carbon storage. Applied Energy, 2018, 231, 768-776.	10.1	111
9	Use of wood elemental composition to predict heat treatment intensity and decay resistance of different softwood and hardwood species. Polymer Degradation and Stability, 2010, 95, 2255-2259.	5.8	90
10	Variation of lignocellulosic biomass structure from torrefaction: A critical review. Renewable and Sustainable Energy Reviews, 2021, 152, 111698.	16.4	86
11	Comparison of chemical composition and decay durability of heat treated wood cured under different inert atmospheres: Nitrogen or vacuum. Polymer Degradation and Stability, 2013, 98, 677-681.	5.8	56
12	Utilization of thermodesorption coupled to GCâ€“MS to study stability of different wood species to thermodegradation. Journal of Analytical and Applied Pyrolysis, 2011, 92, 376-383.	5.5	54
13	Thermal degradation and compositional changes of wood treated in a semi-industrial scale reactor in vacuum. Journal of Analytical and Applied Pyrolysis, 2018, 130, 8-18.	5.5	51
14	Effect of heat treatment intensity on some conferred properties of different European softwood and hardwood species. Wood Science and Technology, 2013, 47, 663-673.	3.2	48
15	Influence of potassium carbonate addition on the condensable species released during wood torrefaction. Fuel Processing Technology, 2018, 169, 248-257.	7.2	44
16	Elemental composition of wood as a potential marker to evaluate heat treatment intensity. Polymer Degradation and Stability, 2009, 94, 365-368.	5.8	42
17	Prediction of the decay resistance of heat treated wood on the basis of its elemental composition. Polymer Degradation and Stability, 2010, 95, 94-97.	5.8	37
18	Comparison of mechanical properties of heat treated beech wood cured under nitrogen or vacuum. Polymer Degradation and Stability, 2013, 98, 1762-1765.	5.8	36

#	Article	IF	Citations
19	Effect of heat treatment intensity on wood chemical composition and decay durability of Pinus patula. European Journal of Wood and Wood Products, 2012, 70, 519-524.	2.9	32
20	Heat treatment kinetics using three-stage approach for sustainable wood material production. Industrial Crops and Products, 2018, 124, 563-571.	5.2	28
21	Effect of torrefaction on the structure and reactivity of rice straw as well as life cycle assessment of torrefaction process. Energy, 2022, 240, 122470.	8.8	27
22	Modeling and prediction of devolatilization and elemental composition of wood during mild pyrolysis in a pilot-scale reactor. Industrial Crops and Products, 2019, 131, 357-370.	5.2	26
23	Thermodegradation characterization of hardwoods and softwoods in torrefaction and transition zone between torrefaction and pyrolysis. Fuel, 2022, 310, 122281.	6.4	25
24	Thermodesorption coupled to GCâ€“MS to characterize volatiles formation kinetic during wood thermodegradation. Journal of Analytical and Applied Pyrolysis, 2013, 101, 96-102.	5.5	20
25	Resistance of thermally modified ash (Fraxinus excelsior L.) wood under steam pressure against rot fungi, soil-inhabiting micro-organisms and termites. European Journal of Wood and Wood Products, 2017, 75, 249-262.	2.9	16
26	Pyrolysis kinetics of potassium-impregnated rubberwood analyzed by evolutionary computation. Bioresource Technology, 2021, 319, 124145.	9.6	8
27	Experimental Comparative Study between Conventional and Green Parking Lots: Analysis of Subsurface Thermal Behavior under Warm and Dry Summer Conditions. Atmosphere, 2021, 12, 994.	2.3	8
28	Influence of the heating rate on the thermodegradation during the mild pyrolysis of the wood. Wood Material Science and Engineering, 2023, 18, 412-421.	2.3	2
29	Behavior of wood during the thermal transition between torrefaction and pyrolysis: chemical and physical modifications.. Wood Material Science and Engineering, 2023, 18, 244-253.	2.3	1