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	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
2	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
3	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
4	Thermodegradation characterization of hardwoods and softwoods in torrefaction and transition zone between torrefaction and pyrolysis. Fuel, 2022, 310, 122281.	6.4	25
5	Pyrolysis kinetics of potassium-impregnated rubberwood analyzed by evolutionary computation. Bioresource Technology, 2021, 319, 124145.	9.6	8
6	Progress in biomass torrefaction: Principles, applications and challenges. Progress in Energy and Combustion Science, 2021, 82, 100887.	31.2	429
7	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
8	Variation of lignocellulosic biomass structure from torrefaction: A critical review. Renewable and Sustainable Energy Reviews, 2021, 152, 111698.	16.4	86
9	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
10	Catalytic effects of potassium on biomass pyrolysis, combustion and torrefaction. Applied Energy, 2019, 235, 346-355.	10.1	170
11	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
12	Influence of potassium carbonate addition on the condensable species released during wood torrefaction. Fuel Processing Technology, 2018, 169, 248-257.	7.2	44
13	Hygroscopic transformation of woody biomass torrefaction for carbon storage. Applied Energy, 2018, 231, 768-776.	10.1	111
14	Heat treatment kinetics using three-stage approach for sustainable wood material production. Industrial Crops and Products, 2018, 124, 563-571.	5.2	28
15	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
16	Control of wood thermal treatment and its effects on decay resistance: a review. Annals of Forest Science, 2016, 73, 571-583.	2.0	145
17	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
18	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

#	Article	IF	Citations
19	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
20	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
21	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
22	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
23	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
24	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
25	Investigation of the chemical modifications of beech wood lignin during heat treatment. Polymer Degradation and Stability, 2010, 95, 1721-1726.	5.8	131
26	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
27	Elemental composition of wood as a potential marker to evaluate heat treatment intensity. Polymer Degradation and Stability, 2009, 94, 365-368.	5.8	42
28	Investigations of the reasons for fungal durability of heat-treated beech wood. Polymer Degradation and Stability, 2006, 91, 393-397.	5.8	252
29	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