

# M Teresa Izquierdo

## List of Publications by Year in descending order

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132  
papers

4,161  
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76326  
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149698  
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docs citations

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times ranked

3422  
citing authors

#	ARTICLE	IF	CITATIONS
1	Qualification of operating conditions to extend oxygen carrier utilization in the scaling up of chemical looping processes. Chemical Engineering Journal, 2022, 430, 132602.	12.7	13
2	Effect of the Fe content on the behavior of synthetic oxygen carriers in a 1.5 kW biomass chemical looping gasification unit. Fuel, 2022, 309, 122193.	6.4	16
3	Iron-based oxygen carrier particles produced from micronized size minerals or industrial wastes. Powder Technology, 2022, 396, 637-647.	4.2	5
4	Coal and biomass combustion with CO <sub>2</sub> capture by CLOU process using a magnetic Fe-Mn-supported CuO oxygen carrier. Fuel, 2022, 314, 122742.	6.4	10
5	Roles of Surface Chemistry and Texture of Nanoporous Activated Carbons in CO <sub>2</sub> Capture. ACS Applied Nano Materials, 2022, 5, 3843-3854.	5.0	12
6	Novel magnetic manganese-iron materials for separation of solids used in high-temperature processes: Application to oxygen carriers for chemical looping combustion. Fuel, 2022, 320, 123901.	6.4	10
7	Production of hydrogen by chemical looping reforming of methane and biogas using a reactive and durable Cu-based oxygen carrier. Fuel, 2022, 322, 124250.	6.4	26
8	Influence of an Oxygen Carrier on the CH <sub>4</sub> Reforming Reaction Linked to the Biomass Chemical Looping Gasification Process. Energy & Fuels, 2022, 36, 9460-9469.	5.1	10
9	CO <sub>2</sub> outperforms KOH as an activator for high-rate supercapacitors in aqueous electrolyte. Renewable and Sustainable Energy Reviews, 2022, 167, 112716.	16.4	12
10	Biomass chemical looping gasification for syngas production using ilmenite as oxygen carrier in a 1.5 kWth unit. Chemical Engineering Journal, 2021, 405, 126679.	12.7	84
11	Influence of activation conditions on textural properties and performance of activated biochars for pyrolysis vapors upgrading. Fuel, 2021, 289, 119759.	6.4	22
12	Evaluation of the redox capability of manganese-titanium mixed oxides for thermochemical energy storage and chemical looping processes. Fuel Processing Technology, 2021, 211, 106579.	7.2	15
13	On the optimization of physical and chemical stability of a Cu/Al <sub>2</sub> O <sub>3</sub> impregnated oxygen carrier for chemical looping combustion. Fuel Processing Technology, 2021, 215, 106740.	7.2	28
14	Behavior of a manganese-iron mixed oxide doped with titanium in reducing the oxygen demand for CLC of biomass. Fuel, 2021, 292, 120381.	6.4	10
15	Cu-Mn oxygen carrier with improved mechanical resistance: Analyzing performance under CLC and CLOU environments. Fuel Processing Technology, 2021, 217, 106819.	7.2	13
16	Optimization of synthesis gas production in the biomass chemical looping gasification process operating under auto-thermal conditions. Energy, 2021, 226, 120317.	8.8	30
17	Development of a magnetic Cu-based oxygen carrier for the chemical looping with oxygen uncoupling (CLOU) process. Fuel Processing Technology, 2021, 218, 106836.	7.2	23
18	Syngas Production in a 1.5 kW <sub>th</sub> Biomass Chemical Looping Gasification Unit Using Fe and Mn Ores as the Oxygen Carrier. Energy & Fuels, 2021, 35, 17182-17196.	5.1	30

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19	Effect of the Presence of Siloxanes in Biogas Chemical Looping Combustion. Energy & Fuels, 2021, 35, 14984-14994.	5.1	6
20	Model carbon materials derived from tannin to assess the importance of pore connectivity in supercapacitors. Renewable and Sustainable Energy Reviews, 2021, 151, 111600.	16.4	14
21	Biomass chemical looping gasification for syngas production using LD Slag as oxygen carrier in a 1.5 kWth unit. Fuel Processing Technology, 2021, 222, 106963.	7.2	39
22	Upgrading of pine tannin biochars as electrochemical capacitor electrodes. Journal of Colloid and Interface Science, 2021, 601, 863-876.	9.4	21
23	Synthesis of bio-based xerogels from lignin precipitated from the black liquor of the paper industry for supercapacitors electrodes. Biomass and Bioenergy, 2021, 155, 106296.	5.7	2
24	Nanostructured tin oxide materials for the sub-ppm detection of indoor formaldehyde pollution. Talanta, 2020, 208, 120396.	5.5	9
25	Coal combustion via Chemical Looping assisted by Oxygen Uncoupling with a manganese-iron mixed oxide doped with titanium. Fuel Processing Technology, 2020, 197, 106184.	7.2	33
26	Structure and electrochemical properties of carbon nanostructures derived from nickel(II) and iron(II) phthalocyanines. Journal of Advanced Research, 2020, 22, 85-97.	9.5	14
27	Oxygen-promoted hydrogen adsorption on activated and hybrid carbon materials. International Journal of Hydrogen Energy, 2020, 45, 30767-30782.	7.1	25
28	Biomass Chemical Looping Gasification of pine wood using a synthetic Fe <sub>2</sub> O <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> oxygen carrier in a continuous unit. Bioresource Technology, 2020, 316, 123908.	9.6	65
29	Synthesis and properties of carbon microspheres based on tannin-sucrose mixtures treated in hydrothermal conditions. Industrial Crops and Products, 2020, 154, 112564.	5.2	16
30	Activated carbon xerogels derived from phenolic oil: Basic catalysis synthesis and electrochemical performances. Fuel Processing Technology, 2020, 205, 106427.	7.2	7
31	Improving the oxygen demand in biomass CLC using manganese ores. Fuel, 2020, 274, 117803.	6.4	17
32	Evaluation of different strategies to improve the efficiency of coal conversion in a 50 kWth Chemical Looping combustion unit. Fuel, 2020, 271, 117514.	6.4	18
33	High-Rate Capability of Supercapacitors Based on Tannin-Derived Ordered Mesoporous Carbons. ACS Sustainable Chemistry and Engineering, 2019, 7, 17627-17635.	6.7	46
34	Thermochemical assessment of chemical looping assisted by oxygen uncoupling with a MnFe-based oxygen carrier. Applied Energy, 2019, 251, 113340.	10.1	20
35	Evaluation of Mn-Fe mixed oxide doped with TiO <sub>2</sub> for the combustion with CO <sub>2</sub> capture by Chemical Looping assisted by Oxygen Uncoupling. Applied Energy, 2019, 237, 822-835.	10.1	37
36	Comparative study of fuel-N and tar evolution in chemical looping combustion of biomass under both iG-CLC and CLOU modes. Fuel, 2019, 236, 598-607.	6.4	31

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37	Chemical Looping Combustion of gaseous and solid fuels with manganese-iron mixed oxide as oxygen carrier. <i>Energy Conversion and Management</i> , 2018, 159, 221-231.	9.2	61
38	Optimization of $\text{Li}_4\text{SiO}_4$ synthesis conditions by a solid state method for maximum $\text{CO}_2$ capture at high temperature. <i>Journal of Materials Chemistry A</i> , 2018, 6, 3249-3257.	10.3	53
39	Chemical looping combustion of biomass: CLOU experiments with a Cu-Mn mixed oxide. <i>Fuel Processing Technology</i> , 2018, 172, 179-186.	7.2	61
40	Chemical Looping Combustion of different types of biomass in a 0.5 kWth unit. <i>Fuel</i> , 2018, 211, 868-875.	6.4	72
41	High-Temperature $\text{CO}_2$ Capture by $\text{Li}_4\text{SiO}_4$ Sorbents: Effect of $\text{CO}_2$ Concentration and Cyclic Performance under Representative Conditions. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 13802-13810.	3.7	16
42	Negative $\text{CO}_2$ emissions through the use of biofuels in chemical looping technology: A review. <i>Applied Energy</i> , 2018, 232, 657-684.	10.1	166
43	Ordered mesoporous carbons obtained by soft-templating of tannin in mild conditions. <i>Microporous and Mesoporous Materials</i> , 2018, 270, 127-139.	4.4	54
44	Lithium-based sorbents for high temperature $\text{CO}_2$ capture: Effect of precursor materials and synthesis method. <i>Fuel</i> , 2018, 230, 45-51.	6.4	40
45	Excellent electrochemical performances of nanocast ordered mesoporous carbons based on tannin-related polyphenols as supercapacitor electrodes. <i>Journal of Power Sources</i> , 2017, 344, 15-24.	7.8	57
46	Titanium substituted manganese-ferrite as an oxygen carrier with permanent magnetic properties for chemical looping combustion of solid fuels. <i>Fuel</i> , 2017, 195, 38-48.	6.4	56
47	Rice straw-based activated carbons doped with SiC for enhanced hydrogen adsorption. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 11534-11540.	7.1	30
48	Outstanding electrochemical performance of highly N- and O-doped carbons derived from pine tannin. <i>Green Chemistry</i> , 2017, 19, 2653-2665.	9.0	63
49	Mercury emissions from coal combustion in fluidized beds under oxy-fuel and air conditions: Influence of coal characteristics and $\text{O}_2$ concentration. <i>Fuel Processing Technology</i> , 2017, 167, 695-701.	7.2	6
50	Spray granulated Cu-Mn oxygen carrier for chemical looping with oxygen uncoupling (CLOU) process. <i>International Journal of Greenhouse Gas Control</i> , 2017, 65, 76-85.	4.6	24
51	Chemical Looping Combustion of Biomass: An Approach to BECCS. <i>Energy Procedia</i> , 2017, 114, 6021-6029.	1.8	22
52	Easy Preparation of Tannin-Based Ag Catalysts for Ethylene Epoxidation. <i>ChemistrySelect</i> , 2017, 2, 8509-8516.	1.5	3
53	Evaluation of $(\text{Mn}_x\text{Fe}_{1-x})_2\text{TiO}_z$ Particles as Oxygen Carrier for Chemical Looping Combustion. <i>Energy Procedia</i> , 2017, 114, 302-308.	1.8	6
54	Influence of crystal/particle size and gold content of a structured Au/C based sorbent on mercury capture. <i>Journal of Physics and Chemistry of Solids</i> , 2017, 110, 173-179.	4.0	7

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55	Mercury capture by a structured Au/C regenerable sorbent under oxycoal combustion representative and real conditions. <i>Fuel</i> , 2017, 207, 821-829.	6.4	16
56	No removal in the selective catalytic reduction process over Cu and Fe exchanged type Y zeolites synthesized from coal fly ash. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2016, 38, 1183-1188.	2.3	6
57	Long-lasting Cu-based oxygen carrier material for industrial scale in Chemical Looping Combustion. <i>International Journal of Greenhouse Gas Control</i> , 2016, 52, 120-129.	4.6	60
58	Physisorption, chemisorption and spill-over contributions to hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 17442-17452.	7.1	41
59	Sugarcane molasses as a pseudocapacitive material for supercapacitors. <i>RSC Advances</i> , 2016, 6, 88826-88836.	3.6	18
60	Assessment of hydrogen storage in activated carbons produced from hydrothermally treated organic materials. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 12146-12156.	7.1	53
61	Functionalized, hierarchical and ordered mesoporous carbons for high-performance supercapacitors. <i>Journal of Materials Chemistry A</i> , 2016, 4, 6140-6148.	10.3	32
62	Sulphur, nitrogen and mercury emissions from coal combustion with CO <sub>2</sub> capture in chemical looping with oxygen uncoupling (CLOU). <i>International Journal of Greenhouse Gas Control</i> , 2016, 46, 28-38.	4.6	55
63	The fate of mercury in fluidized beds under oxy-fuel combustion conditions. <i>Fuel</i> , 2016, 167, 75-81.	6.4	18
64	High surface area Highly N-doped carbons from hydrothermally treated tannin. <i>Industrial Crops and Products</i> , 2015, 66, 282-290.	5.2	44
65	A Critical Short Review of Equilibrium and Kinetic Adsorption Models for VOCs Breakthrough Curves Modelling. <i>Adsorption Science and Technology</i> , 2015, 33, 851-869.	3.2	21
66	Effect of thermal treatments on the morphology, chemical state and lattice structure of gold nanoparticles deposited onto carbon structured monoliths. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2015, 468, 140-150.	4.7	12
67	Mercury capture by a regenerable sorbent under oxycoal combustion conditions: Effect of SO <sub>2</sub> and O <sub>2</sub> on capture efficiency. <i>Chemical Engineering Science</i> , 2015, 122, 232-239.	3.8	20
68	Novel methodology for gold nanoparticles deposition on carbon monolith supports. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2014, 441, 91-100.	4.7	7
69	Influence of activation atmosphere used in the chemical activation of almond shell on the characteristics and adsorption performance of activated carbons. <i>Fuel Processing Technology</i> , 2014, 119, 74-80.	7.2	76
70	Kinetics of the hydrothermal treatment of tannin for producing carbonaceous microspheres. <i>Bioresource Technology</i> , 2014, 151, 271-277.	9.6	55
71	Mercury Release and Speciation in Chemical Looping Combustion of Coal. <i>Energy &amp; Fuels</i> , 2014, 28, 2786-2794.	5.1	34
72	Activated carbons obtained from sewage sludge by chemical activation: Gas-phase environmental applications. <i>Journal of Environmental Management</i> , 2014, 140, 145-151.	7.8	37

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73	Hydrogen storage in activated carbons produced from coals of different ranks: Effect of oxygen content. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 4996-5002.	7.1	54
74	Release of pollutant components in CLC of lignite. <i>International Journal of Greenhouse Gas Control</i> , 2014, 22, 15-24.	4.6	65
75	Relevance of the catalytic activity on the performance of a NiO/CaAl <sub>2</sub> O <sub>4</sub> oxygen carrier in a CLC process. <i>Applied Catalysis B: Environmental</i> , 2014, 147, 980-987.	20.2	35
76	Hydrogen uptake of high surface area-activated carbons doped with nitrogen. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 10453-10460.	7.1	48
77	High-performances carbonaceous adsorbents for hydrogen storage. <i>Journal of Physics: Conference Series</i> , 2013, 416, 012024.	0.4	2
78	Adsorption of toluene and toluene-water vapor mixture on almond shell based activated carbons. <i>Adsorption</i> , 2013, 19, 1137-1148.	3.0	31
79	Toluene and n-hexane adsorption and recovery behavior on activated carbons derived from almond shell wastes. <i>Fuel Processing Technology</i> , 2013, 110, 1-7.	7.2	35
80	Influence of temperature and regeneration cycles on Hg capture and efficiency by structured Au/C regenerable sorbents. <i>Journal of Hazardous Materials</i> , 2013, 260, 247-254.	12.4	42
81	Impact of synthesis conditions of KOH activated carbons on their hydrogen storage capacities. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 14278-14284.	7.1	46
82	Nitrogen-doped carbon materials produced from hydrothermally treated tannin. <i>Carbon</i> , 2012, 50, 5411-5420.	10.3	127
83	Pyrrhotite deposition through thermal projection to simulate iron sulphide slagging in oxyfuel combustion. <i>Fuel</i> , 2012, 101, 197-204.	6.4	12
84	Effect of H <sub>2</sub> S on the behaviour of an impregnated NiO-based oxygen-carrier for chemical-looping combustion (CLC). <i>Applied Catalysis B: Environmental</i> , 2012, 126, 186-199.	20.2	50
85	Activated carbons doped with Pd nanoparticles for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 5072-5080.	7.1	73
86	Tail-end Hg capture on Au/carbon-monolith regenerable sorbents. <i>Journal of Hazardous Materials</i> , 2011, 193, 304-310.	12.4	24
87	Optimization of activated carbons for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 11746-11751.	7.1	72
88	Conversion of almond shell to activated carbons: Methodical study of the chemical activation based on an experimental design and relationship with their characteristics. <i>Biomass and Bioenergy</i> , 2011, 35, 1235-1244.	5.7	38
89	Enhancement of nitric oxide removal by ammonia on a low-rank coal based carbon by sulphuric acid treatment. <i>Fuel Processing Technology</i> , 2011, 92, 1362-1367.	7.2	21
90	Activated carbons with appropriate micropore size distribution for hydrogen adsorption. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 5431-5434.	7.1	54

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91	Adsorption and compression contributions to hydrogen storage in activated anthracites. International Journal of Hydrogen Energy, 2010, 35, 9038-9045.	7.1	67
92	Coal fly ash based carbons for SO <sub>2</sub> removal from flue gases. Waste Management, 2010, 30, 1341-1347.	7.4	32
93	Experimental evidence of an upper limit for hydrogen storage at 77 K on activated carbons. Carbon, 2010, 48, 1902-1911.	10.3	79
94	Preparation and characterization of carbon-enriched coal fly ash. Journal of Environmental Management, 2008, 88, 1562-1570.	7.8	35
95	Carbon-enriched coal fly ash as a precursor of activated carbons for SO <sub>2</sub> removal. Journal of Hazardous Materials, 2008, 155, 199-205.	12.4	51
96	Novel carbon based catalysts for the reduction of NO: Influence of support precursors and active phase loading. Catalysis Today, 2008, 137, 215-221.	4.4	15
97	Denitrification of Stack Gases in the Presence of Low-Rank Coal-Based Carbons Activated with Steam. Energy & Fuels, 2007, 21, 2033-2037.	5.1	9
98	Low-cost carbon-based briquettes for the reduction of NO emissions from medium- and small stationary sources. Catalysis Today, 2007, 119, 175-180.	4.4	15
99	Unburnt carbon from coal fly ashes as a precursor of activated carbon for nitric oxide removal. Journal of Hazardous Materials, 2007, 143, 561-566.	12.4	48
100	Hydrogen adsorption studies on single wall carbon nanotubes. Carbon, 2004, 42, 1243-1248.	10.3	154
101	Title is missing!. Oxidation of Metals, 2003, 59, 395-407.	2.1	3
102	Curing temperature effect on mechanical strength of smokeless fuel briquettes prepared with molasses†. Fuel, 2003, 82, 943-947.	6.4	41
103	Curing temperature effect on smokeless fuel briquettes prepared with molasses and H <sub>3</sub> PO <sub>4</sub> †. Fuel, 2003, 82, 1669-1673.	6.4	11
104	Low-temperature co-pyrolysis of a low-rank coal and biomass to prepare smokeless fuel briquettes. Journal of Analytical and Applied Pyrolysis, 2003, 70, 665-677.	5.5	89
105	Curing time effect on mechanical strength of smokeless fuel briquettes. Fuel Processing Technology, 2003, 80, 155-167.	7.2	22
106	Study of the curing temperature effect on binders for smokeless briquettes by Fourier transform infrared spectroscopy. Vibrational Spectroscopy, 2003, 31, 81-87.	2.2	10
107	Curing Temperature Effect on Mechanical Strength of Smokeless Fuel Briquettes Prepared with Humates. Energy & Fuels, 2003, 17, 419-423.	5.1	5
108	A novel approach for characterising carbon catalysts by TAP experiments. Studies in Surface Science and Catalysis, 2002, 144, 255-260.	1.5	2

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109	Mechanism of interaction of pyrite with hematite as simulation of slagging and fireside tube wastage in coal combustion. <i>Thermochimica Acta</i> , 2002, 390, 103-111.	2.7	17
110	DSC study of curing in smokeless briquetting. <i>Thermochimica Acta</i> , 2001, 371, 41-44.	2.7	9
111	Different approaches to proximate analysis by thermogravimetry analysis. <i>Thermochimica Acta</i> , 2001, 370, 91-97.	2.7	104
112	Aluminosilicates transformations in combustion followed by DSC. <i>Thermochimica Acta</i> , 2001, 373, 173-180.	2.7	41
113	Modifications to the surface chemistry of low-rank coal-based carbon catalysts to improve flue gas nitric oxide removal. <i>Applied Catalysis B: Environmental</i> , 2001, 33, 315-324.	20.2	42
114	Influence of the Activation Temperature on the SO <sub>2</sub> Removal Capacity and Mechanical Performance of Pelletized Activated Chars. <i>Environmental Technology (United Kingdom)</i> , 2001, 22, 1081-1089.	2.2	4
115	Effect of binder addition on the mechanical and physicochemical properties of low rank coal char briquettes. <i>Carbon</i> , 1999, 37, 1833-1841.	10.3	40
116	Influence of low-rank coal char properties on their SO <sub>2</sub> removal capacity from flue gases. 2. Activated chars. <i>Carbon</i> , 1998, 36, 263-268.	10.3	43
117	Influence of Char Physicochemical Features on the Flue Gas Nitric Oxide Reduction with Chars. <i>Environmental Science &amp; Technology</i> , 1998, 32, 4017-4022.	10.0	36
118	Influence of low-rank coal char properties on their SO <sub>2</sub> removal capacity from flue gases: I. Non-activated chars. <i>Carbon</i> , 1997, 35, 1005-1011.	10.3	53
119	Iron from two different catalytic precursors in coal hydrogenation. <i>Coal Science and Technology</i> , 1995, , 1335-1338.	0.0	0
120	Role of Iron in Dry Coal Hydroconversion. <i>Energy &amp; Fuels</i> , 1995, 9, 753-759.	5.1	8
121	Relation between release of conversion products in coal liquefaction and cross-linking. <i>Fuel</i> , 1994, 73, 925-928.	6.4	2
122	Char formation and release of liquids in catalysed hydrolysis. <i>Fuel Processing Technology</i> , 1994, 37, 87-97.	7.2	1
123	Iron catalyzed hydrogenation of high sulphur content coals. <i>Fuel Processing Technology</i> , 1993, 36, 177-184.	7.2	13
124	From coal to char. <i>Carbon</i> , 1992, 30, 375-378.	10.3	8
125	Segregation of straw/sand mixtures in fluidized beds in non-steady state. <i>Powder Technology</i> , 1991, 68, 31-35.	4.2	14
126	COAL BEHAVIOUR IN DRY RAPID CATALYTIC HYDROGENATION. , 1991, , 814-817.		1



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127	Comparative study of residues from dry hydrogenation and low temperature pyrolysis. Fuel Processing Technology, 1990, 25, 241-250.	7.2	1
128	Evaluation of coal conversion by swelling measurement. Fuel Processing Technology, 1990, 24, 171-178.	7.2	3
129	Network swelling of coals. Fuel, 1990, 69, 892-895.	6.4	13
130	Operational Experience of Biomass Combustion Using Chemical Looping Processes. , 0, , .		0
131	Chemical Looping Combustion of Biomass: Clou Experiments with a Cu-Mn Mixed Oxide. , 0, , .		0
132	In-Situ Co2 Capture in Magnesium Production Industrial Processes. SSRN Electronic Journal, 0, , .	0.4	0