## Pasquale Cavaliere

List of Publications by Year in descending order

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139 papers 4,592 citations

35 h-index 60 g-index

142 all docs 142 docs citations

times ranked

142

2689 citing authors

#	Article	IF	CITATIONS
1	Cold spray additive manufacturing and repair: Fundamentals and applications. Additive Manufacturing, 2018, 21, 628-650.	1.7	269
2	Influence of shoulder geometry on microstructure and mechanical properties of friction stir welded 6082 aluminium alloy. Materials & Design, 2007, 28, 1124-1129.	5.1	248
3	Mechanical and microstructural behaviour of 2024–7075 aluminium alloy sheets joined by friction stir welding. International Journal of Machine Tools and Manufacture, 2006, 46, 588-594.	6.2	225
4	Effect of welding parameters on mechanical and microstructural properties of dissimilar AA6082–AA2024 joints produced by friction stir welding. Materials & Design, 2009, 30, 609-616.	5.1	198
5	Effect of welding parameters on mechanical and microstructural properties of AA6056 joints produced by Friction Stir Welding. Journal of Materials Processing Technology, 2006, 180, 263-270.	3.1	168
6	Effect of welding parameters on mechanical and microstructural properties of AA6082 joints produced by friction stir welding. Journal of Materials Processing Technology, 2008, 200, 364-372.	3.1	157
7	Fatigue properties and crack behavior of ultra-fine and nanocrystalline pure metals. International Journal of Fatigue, 2009, 31, 1476-1489.	2.8	147
8	2198 Al–Li plates joined by Friction Stir Welding: Mechanical and microstructural behavior. Materials & Design, 2009, 30, 3622-3631.	5.1	139
9	Superplastic behaviour of friction stir processed AZ91 magnesium alloy produced by high pressure die cast. Journal of Materials Processing Technology, 2007, 184, 77-83.	3.1	114
10	Effect of tool position on the fatigue properties of dissimilar 2024-7075 sheets joined by friction stir welding. Journal of Materials Processing Technology, 2008, 206, 249-255.	3.1	94
11	Mechanical properties of Friction Stir Processed 2618/Al2O3/20p metal matrix composite. Composites Part A: Applied Science and Manufacturing, 2005, 36, 1657-1665.	3.8	92
12	Mechanical response of 2024-7075 aluminium alloys joined by Friction Stir Welding. Journal of Materials Science, 2005, 40, 3669-3676.	1.7	82
13	Friction stir processing of AM60B magnesium alloy sheets. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 462, 393-397.	2.6	81
14	Effects of thermal treatments on microstructure and mechanical properties in a thixocast 319 aluminum alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 284, 254-260.	2.6	76
15	Carbon nanotube reinforced aluminum matrix composites produced by spark plasma sintering. Journal of Materials Science, 2017, 52, 8618-8629.	1.7	73
16	High temperature deformation of friction stir processed 7075 aluminium alloy. Materials Characterization, 2005, 55, 136-142.	1.9	69
17	Friction Stir Welding of Ceramic Particle Reinforced Aluminium Based Metal Matrix Composites. Applied Composite Materials, 2004, 11, 247-258.	1.3	68
18	An analysis of hot formability of the 6061+20% Al2O3 composite by means of different stability criteria. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 327, 144-154.	2.6	66

#	Article	IF	CITATIONS
19	Hot deformation and processing maps of a particulate-reinforced 6061+20% Al2O3 composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 324, 157-161.	2.6	65
20	Fatigue behaviour of friction stir processed AZ91 magnesium alloy produced by high pressure die casting. Materials Characterization, 2007, 58, 226-232.	1.9	59
21	Modeling of the carburizing and nitriding processes. Computational Materials Science, 2009, 46, 26-35.	1.4	55
22	Clean Ironmaking and Steelmaking Processes. , 2019, , .		55
23	Isothermal forging of metal matrix composites: Recrystallization behaviour by means of deformation efficiency. Composites Science and Technology, 2006, 66, 357-362.	3 <b>.</b> 8	54
24	Crack Repair in Aerospace Aluminum Alloy Panels by Cold Spray. Journal of Thermal Spray Technology, 2017, 26, 661-670.	1.6	52
25	Microstructural and fatigue behavior of cold sprayed Ni-based superalloys coatings. Surface and Coatings Technology, 2017, 324, 390-402.	2.2	51
26	Influence of SiO2 nanoparticles on the microstructure and mechanical properties of Al matrix nanocomposites fabricated by spark plasma sintering. Composites Part B: Engineering, 2018, 146, 60-68.	<b>5.</b> 9	51
27	Effect of cold-rolling on microstructure, texture and mechanical properties of an equiatomic FeCrCuMnNi high entropy alloy. Materialia, 2018, 1, 175-184.	1.3	49
28	Isothermal forging of AA2618 reinforced with 20% of alumina particles. Composites Part A: Applied Science and Manufacturing, 2004, 35, 619-629.	3.8	48
29	Hot deformation and processing maps of a particulate reinforced 2618/Al2O3/20p metal matrix composite. Composites Science and Technology, 2004, 64, 1287-1291.	3.8	46
30	Effect of anisotropy on fatigue properties of 2198 Al–Li plates joined by friction stir welding. Engineering Failure Analysis, 2009, 16, 1856-1865.	1.8	45
31	Friction Stir Welding of Al Alloys: Analysis of Processing Parameters Affecting Mechanical Behavior. Procedia CIRP, 2013, 11, 139-144.	1.0	44
32	Effect of heat treatments on mechanical properties and damage evolution of thixoformed aluminium alloys. Materials Characterization, 2005, 55, 35-42.	1.9	41
33	Effect of Sc and Zr additions on the microstructure and fatigue properties of AA6106 produced by equal-channel-angular-pressing. Materials Characterization, 2008, 59, 197-203.	1.9	40
34	Hot and warm forming of 2618 aluminium alloy. Journal of Light Metals, 2002, 2, 247-252.	0.8	39
35	Spark Plasma Sintering: Process Fundamentals. , 2019, , 3-20.		38
36	Friction stir processing of spark plasma sintered aluminum matrix composites with bimodal microand nano-sized reinforcing Al2O3 particles. Journal of Manufacturing Processes, 2018, 32, 412-424.	2.8	37

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37	Processing conditions affecting residual stresses and fatigue properties of cold spray deposits. International Journal of Advanced Manufacturing Technology, 2015, 81, 1857-1862.	1.5	36
38	Fatigue behaviour of cold sprayed metals and alloys: critical review. Surface Engineering, 2016, 32, 631-640.	1.1	36
39	Thermoelasticity for the evaluation of fatigue behavior of 7005/Al2O3/10p metal matrix composite sheets joined by FSW. International Journal of Fatigue, 2008, 30, 198-206.	2.8	33
40	Processing parameters affecting cold spay coatings performances. International Journal of Advanced Manufacturing Technology, 2014, 71, 263-277.	1.5	33
41	Effect of Iron content on the microstructure evolution, mechanical properties and wear resistance of FeXCoCrNi high-entropy alloy ‎system produced via MA-SPS. Journal of Alloys and Compounds, 2021, 870, 159410.	2.8	32
42	Effect of friction stir processing on the fatigue properties of a Zr-modified 2014 aluminium alloy. Materials Characterization, 2006, 57, 100-104.	1.9	31
43	Thermoelasticity and CCD analysis of crack propagation in AA6082 friction stir welded joints. International Journal of Fatigue, 2009, 31, 385-392.	2.8	31
44	Hot rolling of MWCNTs reinforced Al matrix composites produced via spark plasma sintering. Advanced Composites and Hybrid Materials, 2019, 2, 549-570.	9.9	31
45	Influence of Al2O3 Nanoparticles on Microstructure and Strengthening Mechanism of Al-Based Nanocomposites Produced via Spark Plasma Sintering. Journal of Materials Engineering and Performance, 2017, 26, 2928-2936.	1.2	29
46	Mechanical and microstructural behavior of nanocomposites produced via cold spray. Composites Part B: Engineering, 2014, 67, 326-331.	5.9	28
47	Friction stir processing of a Zr-modified 2014 aluminium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 462, 206-210.	2.6	27
48	Microstructural behaviour of spark plasma sintered composites containing bimodal micro- and nano-sized Al <sub>2</sub> O <sub>3</sub> particles. Powder Metallurgy, 2018, 61, 50-63.	0.9	26
49	Modelling of strain rate dependent dislocation behavior of CNT/Al composites based on grain interior/grain boundary affected zone (GI/GBAZ). Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 820, 141547.	2.6	26
50	Microstructural, Mechanical and Wear Behavior of HVOF and Cold-Sprayed High-Entropy Alloys (HEAs) Coatings. Journal of Thermal Spray Technology, 2022, 31, 1184-1206.	1.6	26
51	Crack tip plasticity in plastically graded Ni–W electrodeposited nanocrystalline alloys. Computational Materials Science, 2008, 41, 440-449.	1.4	25
52	Microstructure dependent dislocation density evolution in micro-macro rolled Al2O3/Al laminated composite. Materials Science & Description A: Structural Materials: Properties, Microstructure and Processing, 2022, 830, 142317.	2.6	25
53	Microstructural and mechanical behavior of bimodal reinforced Al-based composites produced by spark plasma sintering and FSP. International Journal of Advanced Manufacturing Technology, 2018, 94, 3903-3916.	1.5	23
54	Effects of Process Control Agent Amount, Milling Time, and Annealing Heat Treatment on the Microstructure of AlCrCuFeNi High-Entropy Alloy Synthesized through Mechanical Alloying. Metals, 2021, 11, 1493.	1.0	23

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55	Strain rate sensitivity of ultra-fine and nanocrystaline metals and alloys. Physica B: Condensed Matter, 2008, 403, 569-575.	1.3	22
56	Hot rolling of spark-plasma-sintered pure aluminium. Powder Metallurgy, 2018, 61, 285-292.	0.9	22
57	Fatigue Bending Behavior of Cold-Sprayed Nickel-Based Superalloy Coatings. Journal of Thermal Spray Technology, 2019, 28, 930-938.	1.6	22
58	Investigation of hardness, wear and magnetic properties of NiCoCrFeZrx HEA prepared through mechanical alloying and spark plasma sintering. Journal of Alloys and Compounds, 2022, 892, 161924.	2.8	22
59	Water Electrolysis for the Production of Hydrogen to Be Employed in the Ironmaking and Steelmaking Industry. Metals, 2021, 11, 1816.	1.0	22
60	Fatigue behaviour of Inconel 625 cold spray coatings. Surface Engineering, 2018, 34, 380-391.	1.1	21
61	Compressive plastic deformation of an AS21X magnesium alloy produced by high pressure die casting at elevated temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 367, 9-16.	2.6	20
62	Isothermal forging modelling of 2618 + 20% Al2O3p metal matrix composite. Journal of Alloys and Compounds, 2004, 378, 117-122.	2.8	20
63	Reducing emissions of PCDD/F in sintering plant: numerical and experimental analysis. Ironmaking and Steelmaking, 2011, 38, 422-431.	1.1	19
64	Progress of Flake Powder Metallurgy Research. Metals, 2021, 11, 931.	1.0	19
65	Mechanical properties of nanocrystalline metals and alloys studied via multi-step nanoindentation and finite element calculations. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 512, 1-9.	2.6	18
66	Effect of Al <sub>2</sub> O <sub>3</sub> , SiO <sub>2</sub> and carbon nanotubes on the microstructural and mechanical behavior of spark plasma sintered aluminum based nanocomposites. Particulate Science and Technology, 2020, 38, 7-14.	1.1	18
67	Analysis of dangerous emissions and plant productivity during sintering ore operations. Ironmaking and Steelmaking, 2013, 40, 9-24.	1.1	17
68	Crystallization Evolution of Cold-Sprayed Pure Ni Coatings. Journal of Thermal Spray Technology, 2016, 25, 1158-1167.	1.6	17
69	Microstructural evolution and mechanical properties of AlCrFeNiCoC high entropy alloy produced via spark plasma sintering. Powder Metallurgy, 2019, 62, 61-70.	0.9	17
70	Effect of friction stir processing on mechanical and microstructural properties of AM60B Magnesium alloy. Journal of Materials Science, 2006, 41, 3459-3464.	1.7	16
71	Cyclic deformation of ultra-fine and nanocrystalline metals through nanoindentation: similarities with crack propagation. Procedia Engineering, 2010, 2, 213-222.	1.2	16
72	Powder Properties and Processing Conditions Affecting Cold Spray Deposition. Coatings, 2020, 10, 91.	1.2	16

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73	Hot deformation behaviour of bimodal sized Al <sub>2</sub> O <sub>3</sub> /Al nanocomposites fabricated by spark plasma sintering. Journal of Microscopy, 2021, 281, 28-45.	0.8	16
74	Flow curve prediction of an Al-MMC under hot working conditions using neural networks. Computational Materials Science, 2007, 38, 722-726.	1.4	15
75	Optimization of Blast Furnace Productivity Coupled with <scp>CO</scp> <sub>2</sub> Emissions Reduction. Steel Research International, 2014, 85, 89-98.	1.0	15
76	Processing Conditions Affecting Grain Size and Mechanical Properties in Nanocomposites Produced via Cold Spray. Journal of Thermal Spray Technology, 2014, 23, 1089-1096.	1.6	14
77	Finite element analyses of pure Ni cold spray particles impact related to coating crack behaviour. Surface Engineering, 2018, 34, 361-368.	1.1	14
78	Influence of zirconium addition on the microstructure, thermodynamic stability, thermal stability and mechanical properties of mechanical alloyed spark plasma sintered (MA-SPS) FeCoCrNi high entropy alloy. Powder Metallurgy, 2018, 61, 405-416.	0.9	14
79	Integration of Open Slag Bath Furnace with Direct Reduction Reactors for New-Generation Steelmaking. Metals, 2022, 12, 203.	1.0	14
80	Architectural design of advanced aluminum matrix composites: a review of recent developments. Critical Reviews in Solid State and Materials Sciences, 2024, 49, 1-71.	6.8	14
81	FEM and multi-objective optimization of steel case hardening. Journal of Manufacturing Processes, 2015, 17, 9-27.	2.8	13
82	Multi-objective optimization of steel nitriding. Engineering Science and Technology, an International Journal, 2016, 19, 292-312.	2.0	13
83	Effect of processing parameters on the microstructural and mechanical properties of aluminum–carbon nanotube composites produced by spark plasma sintering. International Journal of Materials Research, 2018, 109, 900-909.	0.1	13
84	Effect of lead on the crack propagation and the mechanical properties of Brass processed by ECAP at different temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 728, 231-238.	2.6	13
85	CNTs reinforced Al-based composites produced via modified flake powder metallurgy. Journal of Materials Science, 2022, 57, 2550-2566.	1.7	13
86	Friction stir spot welding of TiO2 nanoparticle-reinforced interstitial free steel. Journal of Materials Science, 2020, 55, 12458-12475.	1.7	12
87	Effect of minor Sc and Zr addition on the mechanical properties of Friction Stir Processed 2024 Aluminium alloy. Journal of Materials Science, 2006, 41, 4299-4302.	1.7	11
88	Numerical analysis of multipoint CDW welding process on stainless AISI304 steel bars. Computational Materials Science, 2009, 46, 1109-1118.	1.4	11
89	Nanoindentation and scratch behaviour of Ni–P electroless coatings. Tribology - Materials, Surfaces and Interfaces, 2020, 14, 22-32.	0.6	11
90	Friction Stir Welding of Ceramic Particle Reinforced Aluminium Based Metal Matrix Composites. Applied Composite Materials, 2004, 11, 399.	1.3	10

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91	FSW of bimodal reinforced Al-based composites produced via spark plasma sintering. International Journal of Materials Research, 2017, 108, 1045-1054.	0.1	10
92	Electron backscattered diffraction analysis of friction stir processed nanocomposites produced via spark plasma sintering. Journal of Microscopy, 2018, 271, 145-163.	0.8	10
93	Effect of processing parameters on microstructural and mechanical properties of aluminum–SiO2 nanocomposites produced by spark plasma sintering. International Journal of Materials Research, 2018, 109, 422-430.	0.1	10
94	Direct Reduced Iron: Most Efficient Technologies for Greenhouse Emissions Abatement. , 2019, , 419-484.		10
95	Phase evolution in mechanical alloying and spark plasma sintering of Al <i>&gt;<sub>x</sub></i> CoCrCuFeNi HEAs. Materials Science and Technology, 2020, 36, 604-614.	0.8	10
96	Hydrogen Production as a Clean Energy Carrier through Heterojunction Semiconductors for Environmental Remediation. Energies, 2022, 15, 3222.	1.6	10
97	Hot forming behaviour of Ti–Al–Zr–Si "in situ―metal matrix composite by means of hot torsion tests. Composites Part A: Applied Science and Manufacturing, 2006, 37, 1514-1520.	3.8	9
98	Tribomechanisms of pure electrodeposited Ni at ultra-fine and nanoscale level. Wear, 2010, 268, 1490-1503.	1.5	9
99	Clean Ironmaking and Steelmaking Processes: Efficient Technologies for Greenhouse Emissions Abatement., 2019, , 1-37.		9
100	Effect of Bimodal Grain Structure on the Microstructural and Mechanical Evolution of Al-Mg/CNTs Composite. Metals, 2021, 11, 1524.	1.0	8
101	Architecture dependent strengthening mechanisms in graphene/Al heterogeneous lamellar composites. Materials Characterization, 2022, 188, 111913.	1.9	8
102	Mechanical and Microstructural Behavior of Cold-Sprayed Titanium- and Nickel-Based Coatings. Journal of Thermal Spray Technology, 2015, 24, 1506-1512.	1.6	7
103	Mechanical properties of cold sprayed titanium and nickel based coatings. Surface Engineering, 2016, 32, 670-676.	1.1	7
104	Steel nitriding optimization through multi-objective and FEM analysis. Journal of Computational Design and Engineering, 2016, 3, 71-90.	1.5	7
105	Effect of the equal channel angular pressing route on the microstructural and mechanical behavior of Al-5086 alloy. Materialia, 2018, 4, 310-322.	1.3	7
106	Wear and Fretting Behavior of Cold Sprayed IN625 Superalloy. Metals, 2021, 11, 49.	1.0	7
107	Mechanical and microstructural behaviour of CMSX-4 Ni-based superalloy joined by capacitor discharge welding. Journal of Materials Processing Technology, 2007, 183, 297-300.	3.1	6
108	Nanoindentation characterization of Al-matrix nanocomposites produced via spark plasma sintering. International Journal of Materials Research, 2018, 109, 50-62.	0.1	6

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109	Corrosion behavior of friction stir processed AISI 430 ferritic stainless steel. Materials Research Express, 2019, 6, 086532.	0.8	6
110	Al-Based Nanocomposites Produced via Spark Plasma Sintering: Effect of Processing Route and Reinforcing Phases., 2019, , 161-190.		6
111	Microstructure and Mechanical Properties of Nanostructured CoCrFeMoTi High-Entropy Alloy Fabricated by Mechanical Alloying and Spark Plasma Sintering. Journal of Materials Engineering and Performance, 2019, 28, 7710-7725.	1.2	6
112	A Quantitative Investigation of Dislocation Density in an Al Matrix Composite Produced by a Combination of Micro-/Macro-Rolling. Journal of Composites Science, 2022, 6, 199.	1.4	6
113	Strengthening of a commercial Al-5754 alloy using equal-channel angular pressing. Journal of Materials Science Letters, 2001, 20, 1601-1603.	0.5	5
114	Cold-Sprayed Nanostructured Pure Cobalt Coatings. Journal of Thermal Spray Technology, 2016, 25, 1168-1176.	1.6	5
115	Crack Initiation and Growth Behavior of Cold-Sprayed Ni Particles on IN718 Alloy. Journal of Materials Engineering and Performance, 2017, 26, 1929-1937.	1.2	5
116	The microstructure and wear behaviour of friction stir processed AISI 430 ferritic stainless steel. Tribology - Materials, Surfaces and Interfaces, 2019, 13, 172-181.	0.6	5
117	Fatigue and Fracture of Nanostructured Materials. , 2021, , .		5
118	Increasing shear strength of Au–Sn bonded joint through nano-grained interfacial reaction products. Journal of Materials Science, 2021, 56, 7050-7062.	1.7	5
119	Characterization of Tribological and Mechanical Properties of the Si3N4 Coating Fabricated by Duplex Surface Treatment of Pack Siliconizing and Plasma Nitriding on AISI D2 Tool Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 4753-4766.	1.1	5
120	Effect of Processing Parameters on Strength and Corrosion Resistance of Friction Stir-Welded AA6082. Metals, 2022, 12, 192.	1.0	5
121	Pack Siliconizing Optimization of AISI D2 Tool Steel. Silicon, 2022, 14, 10669-10679.	1.8	5
122	Strain Rate Sensitivity and Fatigue Properties of an Al-fe Nanocrystalline Alloy Produced by Cryogenic Ball Milling. Multidiscipline Modeling in Materials and Structures, 2007, 3, 225-234.	0.6	4
123	Cold Spray Coating Technology for Metallic Components Repairing. Decision Engineering, 2015, , 175-184.	1.5	4
124	Fretting Wear and Scratch Resistance of Cold-Sprayed Pure Cu and Ti. Metallography, Microstructure, and Analysis, 2021, 10, 496.	0.5	4
125	Wear Behavior of Al-Based Nanocomposites Reinforced with Bimodal Micro- and Nano-Sized Al2O3 Particles Produced by Spark Plasma Sintering. Materials Performance and Characterization, 2018, 7, 327-350.	0.2	4
126	Photocatalytic Materials Obtained from E-Waste Recycling: Review, Techniques, Critique, and Update. Journal of Manufacturing and Materials Processing, 2022, 6, 69.	1.0	4

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127	Sintering: Most Efficient Technologies for Greenhouse Emissions Abatement. , 2019, , 111-165.		3
128	Crystal structure evolution in mehcanical alloying and spark plasma sintering of AlxCoCrCuFeNi HEAs. Powder Metallurgy, 2021, 64, 54-63.	0.9	3
129	Growth Mechanism and Kinetics of Siliconizing of AISI D2 Tool Steel. Silicon, 2022, 14, 11395-11403.	1.8	3
130	Fatigue Bending of V-Notched Cold-Sprayed FeCoCrNiMn Coatings. Metals, 2022, 12, 780.	1.0	2
131	Fatigue Properties and Crack Behavior of Cold Spray Coatings. , 2018, , 503-530.		1
132	Evaluation of aluminium/alumina/titanium composites produced by continual annealing and roll-bonding process. Materials Science and Technology, 2019, 35, 1614-1623.	0.8	1
133	Dioxin Emission Reduction in Electric Arc Furnaces for Steel Production. , 2016, , 215-222.		1
134	CO2 Emission Reduction in Blast Furnaces. , 2016, , 151-171.		1
135	Crack Initiation and Growth Behavior of HVOF Stellite-6 Coatings under Bending Loading. , 2022, 1, 62-74.		1
136	Friction Stir Welding of Al Alloys: Analysis through a Multi-Objective Optimization Tool. Materials Science Forum, 0, 783-786, 1729-1734.	0.3	0
137	Mechanical properties of cold sprayed Titanium and Nickel based coatings. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 153-154.	0.2	0
138	Optimization of Processing Conditions Leading to Dangerous Emissions in Steelmaking Plants. , 2015, , 93-102.		0
139	Dangerous Emissions Control and Reduction in Sinter Plants. , 2016, , 39-58.		O