Shanmugan Sengottaiyan

List of Publications by Year in descending order

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133	2,143 citations	236925 25 h-index	276875 41 g-index
papers	Citations	II-IIIQEX	g-muex
138 all docs	138 docs citations	138 times ranked	1335 citing authors

#	Article	IF	CITATIONS
1	Improvement of Thermal Performance of a Solar Box Type Cooker Using SiO2/TiO2 Nanolayer. Silicon, 2022, 14, 557-565.	3.3	25
2	The influence of Cu2ZnSnS4 thin films with characteristics of treatment conditions on spray pyrolysis technique for solar cells applications. Indian Journal of Physics, 2022, 96, 707-716.	1.8	1
3	Experimental Investigation on the Performance of a Solar Still Using SiO2 Nanoparticles /Jatropha curcas L. Silicon, 2022, 14, 3501-3514.	3.3	8
4	A concise review on Solar still with parabolic trough collector. International Journal of Ambient Energy, 2022, 43, 4812-4819.	2.5	8
5	Performance of single slope solar still for socio-economic development in coast locations in India. International Journal of Ambient Energy, 2022, 43, 5175-5183.	2.5	5
6	Solar cells absorption viewpoint of Mie theory: Experimental analysis of TiO2 doping V/Ce. Materials Today: Proceedings, 2022, 51, 1124-1128.	1.8	1
7	Biogenic silver nanoparticles of antibacterial activities for poly-herbal extracts in novel medicine. Materials Today: Proceedings, 2022, 51, 1107-1114.	1.8	1
8	Ground water treatment using solar radiation-vaporization & amp; condensation-techniques by solar desalination system. International Journal of Ambient Energy, 2022, 43, 2868-2874.	2.5	11
9	Microcontroller PIC 16F877A standard based on solar cooker using PVâ€"evacuated tubes with an extension of heat integrated energy system. Environmental Science and Pollution Research, 2022, 29, 15863-15875.	5.3	10
10	Low-cost bilayered structure for improving the performance of solar stills: Performance/cost analysis and water yield prediction using machine learning. Sustainable Energy Technologies and Assessments, 2022, 49, 101783.	2.7	19
11	Fabrication techniques of polymeric nanocomposites: A comprehensive review. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2022, 236, 4843-4861.	2.1	37
12	Experimental enhancement of tubular solar still performance using rotating cylinder, nanoparticles' coating, parabolic solar concentrator, and phase change material. Case Studies in Thermal Engineering, 2022, 29, 101705.	5.7	75
13	SiO2/TiO2 nanolayer synergistically trigger thermal absorption inflammatory responses materials for performance improvement of stepped basin solar still natural distiller. Sustainable Energy Technologies and Assessments, 2022, 52, 101974.	2.7	12
14	Performance assessment of a novel solar distiller with a double slope basin covered by coated wick with lanthanum cobalt oxide nanoparticles. Case Studies in Thermal Engineering, 2022, 32, 101859.	5.7	64
15	Applications of Heat Exchanger in Solar Desalination: Current Issues and Future Challenges. Water (Switzerland), 2022, 14, 852.	2.7	22
16	Laplacian tactic for the prediction of the temperature components of solar cooker with logical prediction by fuzzy rules. Solar Energy, 2022, 236, 369-382.	6.1	7
17	Revealing prediction of perched cum off-centered wick solar still performance using network based on optimizer algorithm. Chemical Engineering Research and Design, 2022, 161, 188-200.	5.6	26
18	Testing and Analysis of Ar Plasma Processed LED at Different Ar Gas Flow Rate and Process Time: Thermal and Surface Verification. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2022, 12, 1007-1014.	2.5	0

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19	Solar cooking thermal image processing applied to time series analysis of fuzzy stage and inconsiderable Fourier transform method. Materials Today: Proceedings, 2021, 34, 460-468.	1.8	8
20	Melt compounded polylactic acid-hexagonal boron nitride-aluminum oxide hybrid composites for electronic applications: impact of hybrid fillers on thermophysical, dielectric, optical, and hardness properties. Polymer-Plastics Technology and Materials, 2021, 60, 147-164.	1.3	4
21	Performance analysis of waste brick magnesia as a storage material in a solar still. Heat Transfer, 2021, 50, 1799-1811.	3.0	9
22	Efficient artificial intelligence forecasting models for COVID-19 outbreak in Russia and Brazil. Chemical Engineering Research and Design, 2021, 149, 399-409.	5.6	60
23	Investigation into the effects of SiO ₂ /TiO ₂ nanolayer on the thermal performance of solar box type cooker. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2021, 43, 2724-2737.	2.3	54
24	Influence of I-Lysine-doped Tartaric Acid–Potassium Bromide single crystals: growth and characterization of photonic applications. Indian Journal of Physics, 2021, 95, 1325-1331.	1.8	0
25	Synergetic effect of micro-hBN and nano-Al2O3 fillers on structural, surface, thermal, and mechanical properties of PLA/hBN/Al ₂ O ₃ hybrid composites: experimental and theoretical investigation. Polymer-Plastics Technology and Materials, 2021, 60, 917-936.	1.3	О
26	High thermal conductivity, UV-stabilized poly(3-hydroxybutyrate-co-3-hydroxyvalerate) hybrid composites for electronic applications: effect of different hybrid fillers on structural, thermal, optical, and mechanical properties. Polymer-Plastics Technology and Materials, 2021, 60, 1273-1291.	1.3	4
27	Performance enhancement of stepped basin solar still based on OSELM with traversal tree for higher energy adaptive control. Desalination, 2021, 502, 114926.	8.2	45
28	Revealing an OSELM based on traversal tree for higher energy adaptive control using an efficient solar box cooker. Solar Energy, 2021, 218, 320-336.	6.1	12
29	Simulation study on thermal performance of a Solar box Cooker using nanocomposite for natural Food invention. Environmental Science and Pollution Research, 2021, 28, 50649-50667.	5.3	9
30	Synthesis and characterization of L-threonine ammonium bromide: grown on single crystal with experimental studies on NLO. Bulletin of Materials Science, 2021, 44, 1.	1.7	2
31	Thermal investigation of a solar box-type cooker with nanocomposite phase change materials using flexible thermography. Renewable Energy, 2021, 178, 260-282.	8.9	39
32	Graphite powder mixed with black paint on the absorber plate of the solar still to enhance yield: An experimental investigation. Desalination, 2021, 520, 115349.	8.2	42
33	A new class single crystal l-lysine hydrogen chloride (LLHC) for optoelectronic applications. Journal of Materials Science: Materials in Electronics, 2021, 32, 26351-26358.	2.2	3
34	Fine-tuned artificial intelligence model using pigeon optimizer for prediction of residual stresses during turning of Inconel 718. Journal of Materials Research and Technology, 2021, 15, 3622-3634.	5.8	67
35	Synthesis and enhanced antibacterial using plant extracts with silver nanoparticles: Therapeutic application. Inorganic Chemistry Communication, 2021, 134, 109045.	3.9	12
36	Artificial Intelligence for Forecasting the Prevalence of COVID-19 Pandemic: An Overview. Healthcare (Switzerland), 2021, 9, 1614.	2.0	33

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37	Polysiloxane-graphite composites as thermal interface material for light emitting diode application: a study on impact of graphite nanopowder on thermal and surface properties. Polymer-Plastics Technology and Materials, 2020, 59, 106-115.	1.3	4
38	Improving the tribological properties of AISI M50 steel using Sns/Zno solid lubricants. Journal of Alloys and Compounds, 2020, 821, 153494.	5.5	50
39	Synthesis, characterization of Ta2O5 nanoparticles with doping SnO2– Ag on solar absorber material and designs analysis of energy production for solar cooker. Materials Today: Proceedings, 2020, 30, 190-196.	1.8	2
40	Investigation on single crystal by tartaric acid–barium chloride: growth and characterization of novel NLO materials. Bulletin of Materials Science, 2020, 43, 1.	1.7	22
41	Trans membranous fetal movement and pressure sensing. Materials Today: Proceedings, 2020, 30, 62-68.	1.8	O
42	Wall-suspended trays inside stepped distiller with Al2O3/paraffin wax mixture and vapor suction: Experimental implementation. Journal of Energy Storage, 2020, 32, 102008.	8.1	80
43	Growth and characterization study of pure and C4H6O5/C2H2O4/Li2SO4 doped L-Lysine single crystal for NLO applications. Materials Today: Proceedings, 2020, 30, 69-77.	1.8	O
44	Experimental study on single slope single basin solar still using TiO2 nano layer for natural clean water invention. Journal of Energy Storage, 2020, 30, 101522.	8.1	87
45	A review on various CMOS circuit styles. Materials Today: Proceedings, 2020, 30, 104-114.	1.8	1
46	Achievements in mid and high-temperature selective absorber coatings by physical vapor deposition (PVD) for solar thermal Application-A review. Journal of Alloys and Compounds, 2020, 839, 155510.	5.5	50
47	Strategies in Absorbing Materials Productivity (H2O) of Renewable Energy Utilization by a Solar Still to Enhancement of Water Flowing over Glass Cover with the Influence of PCM and Nanoparticles. , 2020, , .		O
48	Investigation of third-order nonlinear optical semi organic potassium bromide malate single crystals for optoelectronic applications. Materials Today: Proceedings, 2020, 30, 115-122.	1.8	3
49	Enhancing the use of coal-fly ash in coarse aggregates concrete. Materials Today: Proceedings, 2020, 30, 174-182.	1.8	13
50	Synthesis and characterization of crystalline perfection on l-Lysine co-doping glycine barium chloride/C6H14N2O2 (L-LGBCAC) single crystal for NLO materials. Materials Today: Proceedings, 2020, 30, 57-61.	1.8	2
51	Impact of aluminum oxide nanopowder on thermal, optical and surface properties of polysiloxane-aluminum oxide composites as elastomeric thermal pad for light emitting diode application. Polymer-Plastics Technology and Materials, 2020, 59, 1124-1137.	1.3	1
52	Heat transfer enhancement in lightâ€emitting diode packaging employing different molar concentration of magnesium oxide thin films as a heat spreader. International Journal of Energy Research, 2020, 44, 9527-9537.	4.5	7
53	Extracting water content from the ambient air in a double-slope half-cylindrical basin solar still using silica gel under Egyptian conditions. Sustainable Energy Technologies and Assessments, 2020, 39, 100712.	2.7	52
54	Growth and investigation on novel single crystal of \hat{l}^2 -cyclodextrin 2, 4-dinitrophenylhydrazine for optical sensors applications. Materials Today: Proceedings, 2020, 30, 45-51.	1.8	0

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55	Experimental and water quality analysis of solar stills with vertical and inclined fins. Groundwater for Sustainable Development, 2020, 11, 100410.	4.6	83
56	Evaluation of fuzzy inference in box type solar cooking food image of thermal effect. Environmental and Sustainability Indicators, 2019, 1-2, 100002.	3.3	14
57	Growth and Characterization of L-Lysine Monohydrochloride Dihydrate (LMHCl) Single Crystals by Slow Evaporation Technique. Materials Today: Proceedings, 2019, 18, 1256-1262.	1.8	5
58	Influence of Molar Concentration: Sol-Gel Synthesized Magnesium Oxide Thin Films for High Power Light Emitting Diode Thermal Management. IOP Conference Series: Earth and Environmental Science, 2019, 268, 012118.	0.3	8
59	Impact of ZnO Nanoparticles on Thermal Properties of Poly(3-hydroxybutyrate-co-10 mol %) Tj ETQq1 1 0.784314	rgBT /Ove	rjock 10 Tf
60	Fuzzy Interference Treatment applied to Energy Control with effect of Box type Affordable Solar Cooker. Materials Today: Proceedings, 2019, 18, 1280-1290.	1.8	12
61	Energy and Environment control to Box type Solar Cooker and Nanoparticles mixed bar plate coating with Effect of Thermal Image cooking pot. Materials Today: Proceedings, 2019, 18, 1243-1255.	1.8	18
62	Experimental analysis of Energy and Environment redeemable in solar Nano-basin still to improve Sullage Water Natural Treatment of Fuzzy Application. Materials Today: Proceedings, 2019, 18, 1263-1271.	1.8	8
63	Titanium oxide nanoparticles as additives in engine oil. Journal of King Saud University, Engineering Sciences, 2018, 30, 116-122.	2.0	72
64	Productivity enhancement of solar still by PCM and Nanoparticles miscellaneous basin absorbing materials. Desalination, 2018, 433, 186-198.	8.2	88
65	Performance of Chemical Vapor Deposited Boron-Doped AlN Thin Film as Thermal Interface Materials for 3-W LED: Thermal and Optical Analysis. Acta Metallurgica Sinica (English Letters), 2018, 31, 97-104.	2.9	6
66	EVALUATION ON THE THERMAL AND STRUCTURAL PROPERTIES OF COPPER ALUMINUM OXIDE (Cu-Al2O3) THIN FILM ON AL SUBSTRATE: EFFECT OF ANNEALING TEMPERATURE. Surface Review and Letters, 2018, 25, 1950017.	1.1	1
67	High Performance of Solar Cooker by Heat Transfer Mode Condition System Using Fuzzy Logic Controller Applications. International Journal of Engineering and Technology(UAE), 2018, 7, 278.	0.3	4
68	Performance analysis of IC engine with ceramic-coated piston. Environmental Science and Pollution Research, 2018, 25, 35210-35220.	5.3	15
69	Formation and speciation of Sullage Water Natural Conduct analysis of Fuzzy logic Application by Solar Distillation. International Journal of Engineering and Technology(UAE), 2018, 7, 444.	0.3	6
70	Stability Analysis of Self-propelled Aerial Man Lift Vehicles. International Journal of Vehicle Structures and Systems, 2018, 9, .	0.2	4
71	Finite Element Modelling of Bi-Material Interface for Crack Growth Evaluation: Technical Note. International Journal of Vehicle Structures and Systems, 2018, 9, .	0.2	0
72	Poly (3-hydroxybutyrate- <i>co</i> -15 mol% 3hydroxyhexanoate)/ZnO nanocomposites by solvent casting method: a study of optical, surface, and thermal properties. Materials Research Express, 2017, 4, 015301.	1.6	10

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73	Experimental and numerical investigation of pressure drop and heat transfer coefficient in converging–diverging microchannel heat sink. Heat and Mass Transfer, 2017, 53, 2265-2277.	2.1	18
74	Structural and thermal performance of Ag, Ni, and Ag/Ni thin films as thermal interface material for light-emitting diode application. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	2.3	6
7 5	Structural Analysis of ZnO Nanoparticles Reinforced P(3HB-co-15Âmol% 3HHx) Bioplastic Composite. Journal of Polymers and the Environment, 2017, 25, 1251-1261.	5.0	9
76	Heat transfer enhancement in MOSFET mounted on different FR4 substrates by thermal transient measurement. Chinese Physics B, 2017, 26, 098901.	1.4	1
77	Sullage treatment of full solar energy process high way service of H <inf>2</inf> O in nano particles — Solar still waste water. , 2017, , .		O
78	Experimental analysis of a multi-sponge liner basins techniques of solar distillation. , 2017, , .		0
79	Extraction and characterization of silica from agro-waste for energy applications. , 2017, , .		8
80	Structural and Optical Properties of Ultra-high Pure Hot Water Processed Ga2O3 Thin Film. Medziagotyra, 2016, 22, .	0.2	1
81	Thermal substrates for efficient heat dissipation in LED packaging application. , 2016, , .		1
82	Properties of inductively coupled N2plasma processed AlInN thin film prepared by post annealing of rf sputtered Al/InN stack. Materials Research Express, 2016, 3, 126301.	1.6	1
83	GROWTH OF SPUTTERED-ALUMINUM OXIDE THIN FILMS ON Si (100) AND Si (111) SUBSTRATES WITH Al2O3 BUFFER LAYER. Surface Review and Letters, 2016, 23, 1650016.	1.1	O
84	Analysis of ZnO Thin Film as Thermal Interface Material for High Power Light Emitting Diode Application. Journal of Electronic Packaging, Transactions of the ASME, 2016, 138, .	1.8	2
85	Influence of annealed Cu–Al2O3 thin film on the performance of high power LED: thermal and optical analysis. Optical and Quantum Electronics, 2016, 48, 1.	3.3	9
86	Thermal transient analysis of LED using carbon doped AlN film deposited on metal substrate as heat sink. Optical and Quantum Electronics, 2015, 47, 1245-1253.	3.3	4
87	Antibacterial Activity and Electrical Properties of Gold Nanoparticle Doped Ceria-Rice Husk Silica (Au/Ce-Silica) Nanocomposites Derived From Biomass. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 2015, 45, 304-308.	0.6	7
88	Thermal asymmetry model of single slope single basin solar still with sponge liner. Thermal Science, 2014, 18, 439-450.	1.1	9
89	Thermal Resistance Analysis of High Power Light Emitting Diode Using Aluminum Nitride Thin Film-Coated Copper Substrates as Heat Sink. Journal of Electronic Packaging, Transactions of the ASME, 2014, 136, .	1.8	18
90	Synthesis and Properties of Nano Structured SnO2 Thin Films Prepared by Hot Water Oxidation of Metallic Sn Thin Film. Materials Focus, 2014, 3, 48-54.	0.4	5

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91	Energy, exergy and entropy analysis of a single-slope floating-cum-tilted wick-type solar still. International Journal of Ambient Energy, 2014, 35, 2-12.	2.5	15
92	Study on thermal performance of high power LED employing aluminum filled epoxy composite as thermal interface material. Microelectronics Journal, 2014, 45, 1726-1733.	2.0	48
93	Performance evaluation of an acrylic mirror booster solar still for neera concentration in jaggery-making industry. International Journal of Sustainable Energy, 2014, 33, 261-272.	2.4	3
94	Thermal resistance of CNTs-based thermal interface material for high power solid state device packages. Applied Physics A: Materials Science and Processing, 2014, 114, 1145-1152.	2.3	18
95	BN thin film as thermal interface mateiral for high power LED: thermal resistance and optical analysis. Optical and Quantum Electronics, 2014, 46, 337-344.	3.3	9
96	Surface and electrical properties of plasma processed RF sputtered GaN thin films. EPJ Applied Physics, 2014, 68, 30303.	0.7	1
97	Performance and Thermal Analysis of Aluminium Oxide Filled Epoxy Composite as TIM for LEDs. Material Science Research India, 2014, 11, 35-41.	0.7	10
98	Wick type solar stills: A review. Renewable and Sustainable Energy Reviews, 2013, 20, 322-335.	16.4	88
99	Thermal modeling of double slope wick-type solar still with different thickness insulation absorption of wick surface. , 2013, , .		0
100	Thermal analysis of single slope single basin solar still with fin wick material in the basin. , 2013, , .		2
101	Study on thermal performance of high power LED employing aluminium filled epoxy composite as thermal interface material. , 2013, , .		2
102	Modeling and performance analysis of honeycomb double exposure solar still., 2013,,.		2
103	Heat transfer in high-power LED with thermally conductive particle-filled epoxy composite as thermal interface material for system-level analysis. , 2013, , .		3
104	Thermal performance of box-type solar cooker with inbuilt paraboloid reflector., 2013,,.		0
105	Thermal resistance of high power LED on surface modified heat sink. Frontiers of Optoelectronics, 2013, 6, 160-166.	3.7	1
106	Performance Testing of 3-W LED Mounted on ZnO Thin Film Coated Al as Heat Sink Using Dual Interface Method. IEEE Transactions on Electron Devices, 2013, 60, 2290-2295.	3.0	12
107	Thermal modeling of double slope wick-type solar still with different thickness insulation absorption of wick surface. , 2013 , , .		1
108	Performance of single-slope single-basin solar still with sensible heat storage materials. Desalination and Water Treatment, 2012, 41, 195-203.	1.0	54

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109	Optical properties of amorphous ZnO thin film prepared from boiled Zn thin film in ultra high pure water. EPJ Applied Physics, 2012, 58, 30301.	0.7	4
110	Electrical and morphological analysis of oxygen plasma treated Zn metal thin films. EPJ Applied Physics, 2012, 58, 10802.	0.7	1
111	Formation of Copper oxide thin films from RF sputtered Cu thin film by ultra high pure boiled water. , 2012, , .		1
112	Parametric optimization of a box-type solar cooker with an inbuilt paraboloid reflector using Cramer's rule. International Journal of Sustainable Energy, 2012, 31, 213-227.	2.4	5
113	Energy and exergy analysis of single slope single basin solar still. International Journal of Ambient Energy, 2012, 33, 142-151.	2.5	27
114	Optical Properties and Surface Morphology of Zinc Telluride Thin Films Prepared by Stacked Elemental Layer Method. Medziagotyra, 2012, 18, .	0.2	2
115	An effect of N+ ion bombardment on the properties of CdTe thin films. Radiation Physics and Chemistry, 2012, 81, 201-207.	2.8	41
116	Synthesis of In2O3 Thin Films from Indium Thin Film by Hot-Water Oxidation Method. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 6-9.	2.2	5
117	Performance of Light Emitting Diode on Surface Machined Heat Sink. International Journal of Power Electronics and Drive Systems, 2012, 2, .	0.6	1
118	Review on passive solar distillation. Desalination and Water Treatment, 2011, 28, 217-238.	1.0	24
119	Studies on morphological change and optical properties for various Zn concentrations in CdTe thin film prepared by stacked elemental layer method. Journal of Alloys and Compounds, 2011, 509, 2143-2148.	5.5	16
120	Synthesis and properties of 10% Zn layered CdTe thin films by SEL method. EPJ Applied Physics, 2011, 56, 10301.	0.7	1
121	Thermal analysis of power LED employing dual interface method and water flow as a cooling system. Thermochimica Acta, 2011, 523, 237-244.	2.7	38
122	Influence of Sm3+ ion in structural, morphological, and electrochemical properties of LiMn2O4 synthesized by microwave calcination. Ionics, 2010, 16, 351-360.	2.4	29
123	Effect of Ar+ ion irradiation on structural and optical properties of e-beam evaporated cadmium telluride thin films. Materials Science in Semiconductor Processing, 2010, 13, 298-302.	4.0	17
124	Morphological Studies on Ag Doped CdTe Thin Films Prepared By Stacked Elemental Layer (SEL) Method. , 2010, , .		0
125	Studies on Structural Properties of CdTe (Doped Ag) Thin Films on Glass Substrates-Solar Cell Applications. , 2010, , .		O
126	Synthesis of Nano-Structured Sb ₂ Te ₃ Thin Films by Stacked Elemental Layer Method. Journal of Nanoelectronics and Optoelectronics, 2010, 5, 304-309.	0.5	0

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127	Synthesis and characterization of 10% Sb doped CdTe thin films by stacked elemental layer (SEL) method. Materials Letters, 2009, 63, 1189-1191.	2.6	23
128	Performance study on an acrylic mirror boosted solar distillation unit utilizing seawater. Desalination, 2008, 230, 281-287.	8.2	39
129	Structural and Optical Properties of Zn Doped CdTe Thin Films by Stacked Elemental Layer Method. Advanced Materials Research, 0, 383-390, 3279-3285.	0.3	O
130	A Study on the Effect of Process Parameters on Surface Topography of Al Thin Films on Various Substrates Using AFM. Advanced Materials Research, 0, 383-390, 903-908.	0.3	0
131	Comparative Study between SiC Reinforced Al 64430 Metal Matrix Composites and RHA Reinforced Al 64430 Metal Matrix Composites. Advanced Materials Research, 0, 1119, 234-238.	0.3	10
132	Effect of water flow in a solar still using novel materials. Journal of Thermal Analysis and Calorimetry, 0 , 1 .	3.6	18
133	Synthesis and Characterization of Powder Silica: A Judicious Recycling of the Natural Ceramic Rice Husk Ash. Silicon, 0, , 1.	3.3	4