Moni Datta

List of Publications by Year in descending order

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		172457	206112
49	2,845	29	48
papers	citations	h-index	g-index

52	52	52	4442
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Rechargeable magnesium battery: Current status and key challenges for the future. Progress in Materials Science, 2014, 66, 1-86.	32.8	538
2	Tin and graphite based nanocomposites: Potential anode for sodium ion batteries. Journal of Power Sources, 2013, 225, 316-322.	7.8	242
3	Amorphous siliconâ€“carbon based nano-scale thin film anode materials for lithium ion batteries. Electrochimica Acta, 2011, 56, 4717-4723.	5.2	122
4	In situ electrochemical synthesis of lithiated siliconâ€“carbon based composites anode materials for lithium ion batteries. Journal of Power Sources, 2009, 194, 1043-1052.	7.8	114
5	Noble metal-free bifunctional oxygen evolution and oxygen reduction acidic media electro-catalysts. Scientific Reports, 2016, 6, 28367.	3.3	94
6	Silicon and carbon based composite anodes for lithium ion batteries. Journal of Power Sources, 2006, 158, 557-563.	7.8	89
7	High performance and durable nanostructured TiN supported Pt50â€“Ru50 anode catalyst for direct methanol fuel cell (DMFC). Journal of Power Sources, 2015, 293, 437-446.	7.8	88
8	Guar gum: Structural and electrochemical characterization of natural polymer based binder for siliconâ€“carbon composite rechargeable Li-ion battery anodes. Journal of Power Sources, 2015, 298, 331-340.	7.8	87
9	A Scientific Study of Current Collectors for Mg Batteries in Mg(AlCl₂EtBu)₂/THF Electrolyte. Journal of the Electrochemical Society, 2013, 160, A351-A355.	2.9	80
10	Silicon-based composite anodes for Li-ion rechargeable batteries. Journal of Materials Chemistry, 2007, 17, 3229.	6.7	76
11	A Convenient Approach to Mo₆S₈Chevrel Phase Cathode for Rechargeable Magnesium Battery. Journal of the Electrochemical Society, 2014, 161, A593-A598.	2.9	76
12	Silicon, graphite and resin based hard carbon nanocomposite anodes for lithium ion batteries. Journal of Power Sources, 2007, 165, 368-378.	7.8	73
13	Nitrogen and cobalt co-doped zinc oxide nanowires â€“ Viable photoanodes for hydrogen generation via photoelectrochemical water splitting. Journal of Power Sources, 2015, 299, 11-24.	7.8	72
14	In situ Raman microscopy during discharge of a high capacity siliconâ€“carbon composite Li-ion battery negative electrode. Electrochemistry Communications, 2009, 11, 235-237.	4.7	71
15	High performance robust F-doped tin oxide based oxygen evolution electro-catalysts for PEM based water electrolysis. Journal of Materials Chemistry A, 2013, 1, 4026.	10.3	66
16	Effects of grain refinement on the biocorrosion and in vitro bioactivity of magnesium. Materials Science and Engineering C, 2015, 57, 294-303.	7.3	66
17	Novel (Ir,Sn,Nb)O2 anode electrocatalysts with reduced noble metal content for PEM based water electrolysis. International Journal of Hydrogen Energy, 2012, 37, 3001-3013.	7.1	64
18	Vanadium nitride supercapacitors: Effect of Processing Parameters on electrochemical charge storage behavior. Electrochimica Acta, 2016, 207, 37-47.	5.2	62

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19	Structure and thermal stability of biodegradable Mgâ€“Znâ€“Ca based amorphous alloys synthesized by mechanical alloying. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1637-1643.	3.5	57
20	A Simple Low Temperature Synthesis of Nanostructured Vanadium Nitride for Supercapacitor Applications. Journal of the Electrochemical Society, 2013, 160, A2195-A2206.	2.9	55
21	Fluorine substituted (Mn,Ir)O₂:F high performance solid solution oxygen evolution reaction electro-catalysts for PEM water electrolysis. RSC Advances, 2017, 7, 17311-17324.	3.6	53
22	Novel F-doped IrO2 oxygen evolution electrocatalyst for PEM based water electrolysis. Journal of Power Sources, 2013, 222, 313-317.	7.8	50
23	Novel solâ€“gel derived calcium phosphate coatings on Mg4Y alloy. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1679-1689.	3.5	47
24	Fluorine doped (Ir,Sn,Nb)O2 anode electro-catalyst for oxygen evolution via PEM based water electrolysis. International Journal of Hydrogen Energy, 2014, 39, 664-674.	7.1	47
25	Nanostructured F doped IrO2 electro-catalyst powders for PEM based water electrolysis. Journal of Power Sources, 2014, 269, 855-865.	7.8	43
26	High performance fluorine doped (Sn,Ru)O2 oxygen evolution reactionÂelectro-catalysts for proton exchange membrane based water electrolysis. Journal of Power Sources, 2014, 245, 362-370.	7.8	42
27	Electrochemically active and robust cobalt doped copper phosphosulfide electro-catalysts for hydrogen evolution reaction in electrolytic and photoelectrochemical water splitting. International Journal of Hydrogen Energy, 2018, 43, 7855-7871.	7.1	37
28	Cobalt based nanostructured alloys: Versatile high performance robust hydrogen evolution reaction electro-catalysts for electrolytic and photo-electrochemical water splitting. International Journal of Hydrogen Energy, 2017, 42, 17049-17062.	7.1	35
29	Siliconâ€“Carbon Coreâ€“Shell Hollow Nanotubular Configuration High-Performance Lithium-Ion Anodes. Journal of Physical Chemistry C, 2017, 121, 9662-9671.	3.1	29
30	WO₃ based solid solution oxide â€“ promising proton exchange membrane fuel cell anode electro-catalyst. Journal of Materials Chemistry A, 2015, 3, 18296-18309.	10.3	28
31	Nanostructured robust cobalt metal alloy based anode electro-catalysts exhibiting remarkably high performance and durability for proton exchange membrane fuel cells. Journal of Materials Chemistry A, 2015, 3, 14015-14032.	10.3	27
32	Vertically aligned nitrogen doped (Sn,Nb)O2 nanotubes â€“ Robust photoanodes for hydrogen generation by photoelectrochemical water splitting. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2016, 208, 1-14.	3.5	25
33	Active and robust novel bilayer photoanode architectures for hydrogen generation via direct non-electric bias induced photo-electrochemical water splitting. International Journal of Hydrogen Energy, 2018, 43, 13158-13176.	7.1	22
34	Solâ€“gel synthesis of Pt-Ru-Os-Ir based anode electro-catalysts for direct methanol fuel cells. Journal of Alloys and Compounds, 2010, 506, 698-702.	5.5	20
35	Nanostructured (Ir,Sn)O₂:F â€“ Oxygen Evolution Reaction Anode Electro-Catalyst Powders for PEM Based Water Electrolysis. Journal of the Electrochemical Society, 2014, 161, F868-F875.	2.9	20
36	Electrochemical properties of a new nanocrystalline NaMn2O4 cathode for rechargeable sodium ion batteries. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2014, 188, 1-7.	3.5	20

#	Article	IF	Citations
37	Study of fluorine doped (Nb,Ir)O2 solid solution electro-catalyst powders for proton exchange membrane based oxygen evolution reaction. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2016, 212, 101-108.	3.5	18
38	Highly active robust oxide solid solution electro-catalysts for oxygen reduction reaction for proton exchange membrane fuel cell and direct methanol fuel cell cathodes. International Journal of Hydrogen Energy, 2017, 42, 24079-24089.	7.1	14
39	Complexed solâ€“gel synthesis of improved Ptâ€“Ruâ€“Os-based anode electro-catalysts for direct methanol fuel cells. Journal of Physics and Chemistry of Solids, 2009, 70, 1019-1023.	4.0	12
40	Flexible sulfur wires (Flex-SWs)â€”A new versatile platform for lithium-sulfur batteries. Electrochimica Acta, 2016, 212, 286-293.	5.2	12
41	Pulsed Current Electrodeposition of Silicon Thin Films Anodes for Lithium Ion Battery Applications. Inorganics, 2017, 5, 27.	2.7	11
42	Synthesis and electrochemical study of Mg1.5MnO3: A defect spinel cathode for rechargeable magnesium battery. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2015, 202, 8-14.	3.5	9
43	Heterostructures for Improved Stability of Lithium Sulfur Batteries. Journal of the Electrochemical Society, 2014, 161, A1173-A1180.	2.9	8
44	High energy mechano-chemical milling: Convenient approach to synthesis of LiMn1.5Ni0.5O4 high voltage cathode for lithium ion batteries. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2014, 190, 119-125.	3.5	7
45	Water-soluble-template-derived nanoscale silicon nanoflake and nano-rod morphologies: Stable architectures for lithium-ion battery anodes. Nano Research, 2017, 10, 4284-4297.	10.4	7
46	Constitutional under-potential plating (CUP) â€“ New insights for predicting the morphological stability of deposited lithium anodes in lithium metal batteries. Journal of Power Sources, 2020, 467, 228243.	7.8	7
47	A Complexed Sol-Gel (CSG) Approach to High Surface Area (HSA) Durable Ultra Active Platinum-Ruthenium Electro-Catalysts for Direct Methanol Fuel Cells. Journal of the Electrochemical Society, 2014, 161, F1053-F1060.	2.9	2
48	Alloy Design for Long Term Cyclability of Si Based Anode Materials for Lithium Ion Batteries. SAE International Journal of Materials and Manufacturing, 2008, 1, 285-290.	0.3	0
49	Biocompatible Solâ€“Gel Based Nanostructured Hydroxyapatite Coatings on Nano-porous SiC. , 2012, , 333-349.		0