

# Indranil Chatteraj

## List of Publications by Year in descending order

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63  
papers

632  
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759233

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22  
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all docs

64  
docs citations

64  
times ranked

464  
citing authors

#	ARTICLE	IF	CITATIONS
1	The effects of cold working on sensitization and intergranular corrosion behavior of AISI 304 stainless steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2003, 34, 2441-2447.	2.2	62
2	An investigation of the failure of low pressure steam turbine blades. Engineering Failure Analysis, 1998, 5, 181-193.	4.0	60
3	The importance of grain size relative to grain boundary character on the sensitization of metastable austenitic stainless steel. Scripta Materialia, 2007, 57, 185-188.	5.2	58
4	Effect of temper on the distribution of pits in AA7075 alloys. Corrosion Science, 2008, 50, 2895-2901.	6.6	42
5	Hydrogen entry into pipeline steel under freely corroding conditions in two corroding media. Corrosion Science, 2006, 48, 2676-2688.	6.6	39
6	The effect of shot peening on hydrogen absorption by and hydrogen permeation through AISI 4130 steels. Scripta Metallurgica Et Materialia, 1992, 26, 627-632.	1.0	19
7	Modification of Sensitization Resistance of AISI 304L Stainless Steel through Changes in Grain Size and Grain Boundary Character Distributions. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 2504-2512.	2.2	19
8	Low-Temperature Sensitization Behavior of Base, Heat-Affected Zone, and Weld Pool in AISI 304LN. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 1219-1234.	2.2	19
9	Corrosive degradation and failure of vertical furnace wall tubes of a boiler. Engineering Failure Analysis, 1997, 4, 279-286.	4.0	17
10	The Effect of Pitting on Fatigue Lives of Peak-Aged and Overaged 7075 Aluminum Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 3297-3307.	2.2	15
11	The effect of hydrogen induced cracking on the integrity of steel components. Sadhana - Academy Proceedings in Engineering Sciences, 1995, 20, 199-211.	1.3	14
12	The influence of palladium on the resistance of low alloy steels to hydrogen embrittlement. Scripta Metallurgica, 1987, 21, 1369-1373.	1.2	13
13	The association of potentiokinetic reactivation and electrochemical pitting tests on a nitrogen bearing 19 Cr-17 Mn steel with its thermal history. Corrosion Science, 1996, 38, 957-969.	6.6	12
14	Electrochemical response of AlNiLa amorphous and devitrified alloys. Corrosion Science, 2007, 49, 2486-2496.	6.6	12
15	Studies on low-energy nitrogen plasma immersion ion implantation on austenitic stainless steel and Cu-strengthened HSLA-100 steel. Surface and Coatings Technology, 2004, 186, 282-286.	4.8	11
16	Stress corrosion cracking (SCC) and hydrogen-assisted cracking in titanium alloys. , 2011, , 381-408.		11
17	Crystallization and magnetic behaviour of Fe-Nb-Cu-Si-B alloys. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1998, 77, 1681-1691.	0.6	10
18	Anodic reactions of amorphous and devitrified Fe-Nb-Cu alloys in buffered chloride and fluoride. Corrosion Science, 1999, 41, 1-16.	6.6	10

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19	Structural and soft magnetic properties of Fe <sub>73.5</sub> Nb <sub>3</sub> M <sub>1</sub> Si <sub>13.5</sub> B <sub>9</sub> (M=Cu,Mn,Pt). Journal of Magnetism and Magnetic Materials, 2000, 222, 263-270.	2.3	10
20	Effect of quenching rate on the properties of melt-spun FeNbCuSiB ribbons. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 304-306, 457-461.	5.6	10
21	Influence of hydrogen on the magnetic properties of amorphous Fe <sub>1-x</sub> Si <sub>y</sub> B fibres. Journal of Magnetism and Magnetic Materials, 1997, 166, 186-192.	2.3	9
22	Effects of Cold Deformation Prior to Sensitization on Intergranular Stress Corrosion Cracking of Stainless Steel. Corrosion, 2005, 61, 907-916.	1.1	9
23	Electron transport properties of Co <sub>71-x</sub> Fe <sub>x</sub> Cr <sub>7</sub> Si <sub>8</sub> B <sub>14</sub> (x=0, 2, 3.2, 4, 6,8 and 12at%) amorphous alloys during devitrification. Journal of Magnetism and Magnetic Materials, 2007, 308, 65-70.	2.3	9
24	Failure analysis of air pre-heater tubes of a petrochemicals plant. Engineering Failure Analysis, 2009, 16, 2371-2381.	4.0	9
25	Effect of Fe addition on the crystallization behaviour and Curie temperature of CoCrSiB-based amorphous alloys. Philosophical Magazine, 2005, 85, 1835-1845.	1.6	8
26	Reversible magnetic and mechanical response in hydrogenated amorphous Fe <sub>73.5</sub> Nb <sub>3</sub> Cu <sub>1</sub> Si <sub>13.5</sub> B <sub>9</sub> alloys. Journal of Magnetism and Magnetic Materials, 2003, 266, 296-301.	2.3	7
27	Hydrogen induced brittle crack growth in Cu-strengthened HSLA-100 steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 339, 136-149.	5.6	7
28	Quantification of pitting in two tempers of 7075 aluminium alloy by non-destructive evaluation. Corrosion Science, 2010, 52, 1818-1823.	6.6	7
29	Anomalies in hydrogen enhanced fatigue of a high strength steel. International Journal of Fatigue, 2014, 59, 14-22.	5.7	7
30	Study of Electrochemical Behavior, Hydrogen Permeation and Diffusion in Pipeline Steel. Materials Science Forum, 0, 1019, 145-156.	0.3	7
31	Changes in electrochemical responses of some Fe-B-Si-Cu-Nb alloys before and after devitrification. Scripta Materialia, 1998, 39, 755-761.	5.2	6
32	The effect of corrosion on the magnetic properties of rapidly solidified Fe-Si-B amorphous fibres. Scripta Metallurgica Et Materialia, 1992, 26, 1013-1017.	1.0	5
33	Stress corrosion cracking in an Al-bronze chlorine gas regulating valve. Engineering Failure Analysis, 2000, 7, 229-237.	4.0	5
34	Effect of plasma ion implantation on the hydrogen embrittlement of Cu strengthened HSLA-100 steel. Journal of Materials Science, 2003, 38, 2667-2671.	3.7	5
35	Fatigue crack growth retardation in an HSLA steel in benign environments. International Journal of Fatigue, 2007, 29, 254-260.	5.7	5
36	Electrochemical response of amorphous and devitrified Al-Ni-La-X (X=Ag, Cu) alloys. Materials and Corrosion - Werkstoffe Und Korrosion, 2009, 60, 431-437.	1.5	5

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37	Self-similar and self-affine characteristics of microstructural images of HSLA steel. <i>Materials Science and Technology</i> , 2009, 25, 542-548.	1.6	5
38	Low Temperature Sensitization on the Orthogonal Surfaces of Prior Deformed AISI 304LN and Aged at 673ÅK to 873ÅK (400ÅÅ°C to 600ÅÅ°C). <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012, 43, 986-1003.	2.2	5
39	Hydrogen enhanced fatigue crack growth in an HSLA steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 588, 86-96.	5.6	5
40	Magnetic properties of hydrogenated amorphous Feâ€“Siâ€“B fiber. <i>Journal of Applied Physics</i> , 1993, 73, 2443-2446.	2.5	4
41	Passivity breakdown due to discontinuous precipitation during ageing of 21Cr-10Mn-5Ni stainless steel. <i>Journal of Materials Science</i> , 1995, 30, 5313-5320.	3.7	4
42	Fractal-based quantification of crack paths for determination of effective microstructural length scales and fracture toughness. <i>Scripta Materialia</i> , 2010, 62, 109-112.	5.2	4
43	Influence of Hydrogen on Fatigue Crack Growth in 7075 Aluminum Alloy. <i>Journal of Materials Engineering and Performance</i> , 2023, 32, 782-792.	2.5	4
44	Crystallization and magnetic properties of rapidly solidified Fe-Nb-M-Si-B (M=Cu, Mn, Pt). <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001, 304-306, 950-953.	5.6	3
45	Alteration in hydrogen absorption by and hydrogen permeation through a high-strength low-alloy steel due to plasma source ion implantation of nitrogen. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2004, 35, 1123-1128.	2.1	3
46	Effect of Fe addition on the magnetic and giant magneto-impedance behaviour of CoCrSiB rapidly solidified alloys. <i>Journal Physics D: Applied Physics</i> , 2006, 39, 2001-2006.	2.8	3
47	The effect of shot peening on calculated hydrogen surface coverage of AISI 4130 steels. <i>Scripta Metallurgica Et Materialia</i> , 1992, 26, 89-94.	1.0	2
48	Fractal Analysis to Determine Self-Similar Characteristics in the Microstructure of HSLA Steel. <i>Materials and Manufacturing Processes</i> , 2009, 24, 145-149.	4.7	2
49	Pitting Enhanced Fatigue in 7075 Aluminium Alloy. <i>Advanced Materials Research</i> , 0, 117, 43-48.	0.3	2
50	Investigations on high temperature corrosion of wire enameling oven. <i>Engineering Failure Analysis</i> , 2011, 18, 1375-1387.	4.0	2
51	Stress Corrosion Cracking of Duplex Stainless Steels. <i>Advanced Materials Research</i> , 2013, 794, 552-563.	0.3	2
52	Crevice attack of a boiler steam drum. <i>Canadian Metallurgical Quarterly</i> , 1997, 36, 143-148.	1.2	2
53	Identification of the corrosion mechanism in a boiler drum by corrosion product analysis. <i>Anti-Corrosion Methods and Materials</i> , 1995, 42, 4-6.	1.5	1
54	Effect of structural evolution and surface morphological changes on the electrochemical response of an FeNbAlMnCuSiB alloy. <i>Journal of Materials Science</i> , 2005, 40, 4579-4584.	3.7	1

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55	Study of Giant Magneto-Impedance Behavior in Co-Fe Based Amorphous/Nanocrystalline Materials. <i>Materials and Manufacturing Processes</i> , 2006, 21, 683-686.	4.7	1
56	Magnetic characterization of HSLA steel by power-law decay exponents of Barkhausen emission signal. <i>Journal of Magnetism and Magnetic Materials</i> , 2009, 321, 1034-1038.	2.3	1
57	Hydrogen interactions with overload in modifying fatigue crack growth rate recovery in an HSLA steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 579, 9-17.	5.6	1
58	Intergranular Corrosion Behavior of 304LN Stainless Steel Heat Treated at 623 K (350°C). <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 173-187.	2.2	1
59	The effect of near-crystallization temperature annealing on the electrochemical behavior of amorphous Fe <sub>77.5</sub> B <sub>15</sub> Si <sub>7.5</sub> fibres in borate buffer. <i>Scripta Metallurgica Et Materialia</i> , 1993, 29, 611-616.	1.0	0
60	The generation of magnetic bistability in annealed Fe-Si-B fibre by hydrogenation. <i>Journal Physics D: Applied Physics</i> , 1999, 32, 541-545.	2.8	0
61	Effect of hydrogen on the magnetic behavior of CoFeCrSiB amorphous alloys. <i>Journal of Materials Science</i> , 2006, 41, 5510-5513.	3.7	0
62	HYDROGEN EMBRITTLEMENT: RECENT INDIAN RESEARCH AND PERSPECTIVES. <i>Corrosion Reviews</i> , 2009, 27, 181-211.	2.0	0
63	Study on Sensitization Susceptibility and Texture of Cold Rolled AISI 304LN Stainless Steel. <i>Materials Science Forum</i> , 0, 702-703, 677-680.	0.3	0