S V Babu

List of Publications by Year
in descending order

46 papers	1,429 citations	279798 23 h-index	330143 37 g-index
46 all docs	46 docs citations	46 times ranked	476 citing authors

#	Article	IF	Citations
1	Hydroxyl Radical Formation in H[sub 2]O[sub 2]-Amino Acid Mixtures and Chemical Mechanical Polishing of Copper. Journal of the Electrochemical Society, 2000, 147, 3820.	2.9	111
2	Chemicalâ€"mechanical polishing of copper in alkaline media. Thin Solid Films, 1997, 311, 177-182.	1.8	83
3	Shallow Trench Isolation Chemical Mechanical Planarization: A Review. ECS Journal of Solid State Science and Technology, 2015, 4, P5029-P5039.	1.8	78
4	Cobalt Polishing with Reduced Galvanic Corrosion at Copper/Cobalt Interface Using Hydrogen Peroxide as an Oxidizer in Colloidal Silica-Based Slurries. Journal of the Electrochemical Society, 2012, 159, H582-H588.	2.9	72
5	Controlling the Galvanic Corrosion of Copper during Chemical Mechanical Planarization of Ruthenium Barrier Films. Electrochemical and Solid-State Letters, 2011, 14, H306.	2.2	66
6	Citric Acid as a Complexing Agent in Chemical Mechanical Polishing Slurries for Cobalt Films for Interconnect Applications. ECS Journal of Solid State Science and Technology, 2017, 6, P594-P602.	1.8	59
7	Almost Complete Removal of Ceria Particles Down to 10Ânm Size from Silicon Dioxide Surfaces. ECS Journal of Solid State Science and Technology, 2018, 7, P243-P252.	1.8	58
8	Role of ionic strength in chemical mechanical polishing of silicon carbide using silica slurries. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 445, 119-127.	4.7	57
9	Slurry Additive Effects on the Suppression of Silicon Nitride Removal during CMP. Electrochemical and Solid-State Letters, 2004, 7, G327.	2.2	56
10	Achievement of high planarization efficiency in CMP of copper at a reduced down pressure. Microelectronic Engineering, 2009, 86, 367-373.	2.4	52
11	Role of Different Additives on Silicon Dioxide Film Removal Rate during Chemical Mechanical Polishing Using Ceria-Based Dispersions. Journal of the Electrochemical Society, 2010, 157, H869.	2.9	51
12	Role of Amine and Carboxyl Functional Groups of Complexing Agents in Slurries for Chemical Mechanical Polishing of Copper. Journal of the Electrochemical Society, 2005, 152, G912.	2.9	45
13	Amino Acids as Complexing Agents in Chemicalâ^'Mechanical Planarization of Copper. Chemistry of Materials, 2005, 17, 2076-2080.	6.7	44
14	Ammonium Persulfate and Potassium Oleate Containing Silica Dispersions for Chemical Mechanical Polishing for Cobalt Interconnect Applications. ECS Journal of Solid State Science and Technology, 2019, 8, P3001-P3008.	1.8	44
15	Utility of dodecyl sulfate surfactants as dissolution inhibitors in chemical mechanical planarization of copper. Journal of Materials Research, 2005, 20, 3413-3424.	2.6	42
16	Potassium Oleate as a Dissolution and Corrosion Inhibitor during Chemical Mechanical Planarization of Chemical Vapor Deposited Co Films for Interconnect Applications. ECS Journal of Solid State Science and Technology, 2017, 6, P845-P852.	1.8	41
17	Chemical Mechanical Polishing of Chemical Vapor Deposited Co Films with Minimal Corrosion in the Cu/Co/Mn/SiCOH Patterned Structures. ECS Journal of Solid State Science and Technology, 2017, 6, P276-P283.	1.8	40
18	Ammonium Dodecyl Sulfate as a Potential Corrosion Inhibitor Surfactant for Electrochemical Mechanical Planarization of Copper. Electrochemical and Solid-State Letters, 2005, 8, G297.	2.2	34

#	Article	IF	Citations
19	Post-CMP Cleaning Solutions for the Removal of Organic Contaminants with Reduced Galvanic Corrosion at Copper/Cobalt Interface for Advanced Cu Interconnect Applications. ECS Journal of Solid State Science and Technology, 2019, 8, P379-P387.	1.8	34
20	Selective Chemical Mechanical Polishing of Silicon Dioxide over Silicon Nitride for Shallow Trench Isolation Using Ceria Slurries. Journal of the Electrochemical Society, 2009, 156, H936.	2.9	30
21	Role of hydrogen bonding on the adsorption of several amino acids on SiO2 and Si3N4 and selective polishing of these materials using ceria dispersions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 429, 67-73.	4.7	30
22	Formation of Cobalt-BTA Complexes and Their Removal from Various Surfaces Relevant to Cobalt Interconnect Applications. ECS Journal of Solid State Science and Technology, 2019, 8, P3009-P3017.	1.8	28
23	Selective Polishing of Polysilicon during Fabrication of Microelectromechanical Systems Devices. Journal of the Electrochemical Society, 2009, 156, H487.	2.9	27
24	Cleaning Solutions for Ultrathin Co Barriers for Advanced Technology Nodes. ECS Journal of Solid State Science and Technology, 2017, 6, P671-P680.	1.8	24
25	Role of Poly(diallyldimethylammonium chloride) in Selective Polishing of Polysilicon over Silicon Dioxide and Silicon Nitride Films. Langmuir, 2011, 27, 3502-3510.	3.5	23
26	Role of polycation adsorption in poly-Si, SiO2 and Si3N4 removal during chemical mechanical polishing: Effect of polishing pad surface chemistry. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 388, 21-28.	4.7	22
27	Cleaning Solutions for Removal of â^¼30 nm Ceria Particles from Proline and Citric Acid Containing Slurries Deposited on Silicon Dioxide and Silicon Nitride Surfaces. ECS Journal of Solid State Science and Technology, 2020, 9, 044013.	1.8	20
28	Potassium Permanganate-Based Slurry to Reduce the Galvanic Corrosion of the Cu/Ru/TiN Barrier Liner Stack during CMP in the BEOL Interconnects. ECS Journal of Solid State Science and Technology, 2016, 5, P256-P263.	1.8	18
29	Charge Density and pH Effects on Polycation Adsorption on Poly-Si, SiO₂, and Si₃N₄ Films and Impact on Removal During Chemical Mechanical Polishing. ACS Applied Materials & Interfaces, 2011, 3, 4126-4132.	8.0	17
30	Potassium Periodate-Based Solutions for Minimizing Galvanic Corrosion at the Cu-Mn Interface and for Polishing the Associated Cu Interconnect Structures. ECS Journal of Solid State Science and Technology, 2013, 2, P160-P165.	1.8	16
31	Ceria-Based Slurries for Non-Prestonian Removal of Silicon Dioxide Films. ECS Journal of Solid State Science and Technology, 2015, 4, P36-P41.	1.8	14
32	Functional Paper-Based Platform for Rapid Capture and Detection of CeO₂ Nanoparticles. ACS Applied Materials & Interfaces, 2017, 9, 12893-12905.	8.0	14
33	Role of Ce3+Ions in Achieving High Silicon Nitride Polish Rates. ECS Journal of Solid State Science and Technology, 2017, 6, P898-P903.	1.8	14
34	AFM-Based Study of the Interaction Forces between Ceria, Silicon Dioxide and Polyurethane Pad during Non-Prestonian Polishing of Silicon Dioxide Films. ECS Journal of Solid State Science and Technology, 2015, 4, P5016-P5020.	1.8	13
35	Novel Î±-amine-functionalized silica-based dispersions for selectively polishing polysilicon and Si(100) over silicon dioxide, silicon nitride or copper during chemical mechanical polishing. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2010, 371, 131-136.	4.7	11
36	Trajectories, diffusion, and interactions of single ceria particles on a glass surface observed by evanescent wave microscopy. Journal of Materials Research, 2020, 35, 321-331.	2.6	8

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37	Effect of flow velocity on fiber efficiency and particle residence time during filtration of aqueous dispersionsâ€”An experimental and simulation study. Particulate Science and Technology, 2019, 37, 161-170.	2.1	7
38	Complexing Between Additives and Ceria Abrasives Used for Polishing Silicon Dioxide and Silicon Nitride Films. Electrochemical and Solid-State Letters, 2011, 14, H128.	2.2	6
39	Reactive Liquids for Nonâ€“Prestonian Chemical Mechanical Polishing of Polysilicon Films. ECS Journal of Solid State Science and Technology, 2019, 8, P3040-P3046.	1.8	6
40	Real-Time Visualization of the Cleaning of Ceria Particles from Silicon Dioxide Films Using PVA Brush Scrubbing. ECS Journal of Solid State Science and Technology, 2021, 10, 084004.	1.8	5
41	Real time imaging of the growth of silver ribbons by evanescent wave microscopy. RSC Advances, 2015, 5, 71830-71834.	3.6	4
42	3D trajectories and diffusion of single ceria particles near a glass surface and their removal. Journal of Materials Research, 2021, 36, 258-267.	2.6	2
43	Measurement of the force required to move ceria particles from SiO2 surfaces using lateral force microscopy. Journal of Materials Research, 2022, 37, 1789-1797.	2.6	2
44	Storage Temperature Effects on the Slurry Health Parameters and SiO₂ Removal Rates during Chemical Mechanical Polishing. ECS Journal of Solid State Science and Technology, 2021, 10, 104002.	1.8	1
45	Selective Polishing of Amorphous Silicon Carbonitride (a-SiCN) Films Over Silicon Dioxide and Silicon Nitride Films for Hardmask Applications. ECS Journal of Solid State Science and Technology, 2020, 9, 034004.	1.8	0
46	3D trajectories and diffusion of single ceria particles near a glass surface and their removal. Journal of Materials Research, 2021, 36, 1-10.	2.6	0