

# Narottam P Bansal, Ph D

## List of Publications by Year in descending order

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61  
papers

3,356  
citations

147801

31  
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149698

56  
g-index

76  
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76  
docs citations

76  
times ranked

1796  
citing authors

#	ARTICLE	IF	CITATIONS
1	Rare earth silicate environmental barrier coatings for SiC/SiC composites and Si <sub>3</sub> N <sub>4</sub> ceramics. Journal of the European Ceramic Society, 2005, 25, 1705-1715.	5.7	618
2	Upper Temperature Limit of Environmental Barrier Coatings Based on Mullite and BSAS. Journal of the American Ceramic Society, 2003, 86, 1299-1306.	3.8	311
3	Kinetics of Crystallization of ZrF <sub>4</sub> -Ba <sub>2</sub> -LaF <sub>3</sub> Glass by Differential Scanning Calorimetry. Journal of the American Ceramic Society, 1983, 66, 233-238.	3.8	174
4	Effects of doping on thermal conductivity of pyrochlore oxides for advanced thermal barrier coatings. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 459, 192-195.	5.6	136
5	Chemical durability of high-temperature superconductor YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> in aqueous environments. Applied Physics Letters, 1988, 52, 323-325.	3.3	117
6	Combustion synthesis of Sm <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>3-x</sub> and La <sub>0.6</sub> Sr <sub>0.4</sub> Co <sub>3-x</sub> nanopowders for solid oxide fuel cell cathodes. Journal of Power Sources, 2006, 158, 148-153.	7.8	111
7	Crystallization kinetics of a solid oxide fuel cell seal glass by differential thermal analysis. Journal of Power Sources, 2005, 147, 107-115.	7.8	110
8	Thermal properties of oxides with magnetoplumbite structure for advanced thermal barrier coatings. Surface and Coatings Technology, 2008, 202, 2698-2703.	4.8	102
9	Crystallization kinetics of BaO-Al <sub>2</sub> O <sub>3</sub> -SiO <sub>2</sub> glasses. Journal of Materials Research, 1989, 4, 1257-1265.	2.6	90
10	Boron Nitride Nanotubes-Reinforced Glass Composites. Journal of the American Ceramic Society, 2006, 89, 388-390.	3.8	88
11	Mechanical and thermal properties of calcium-magnesium aluminosilicate (CMAS) glass. Journal of the European Ceramic Society, 2015, 35, 2907-2914.	5.7	67
12	High temperature viscosity of calcium-magnesium-aluminosilicate glass from synthetic sand. Scripta Materialia, 2016, 124, 189-192.	5.2	64
13	Kinetics of Hexacelsian-to-Celsian Phase Transformation in SrAl <sub>2</sub> Si <sub>2</sub> O <sub>8</sub> . Journal of the American Ceramic Society, 1993, 76, 1321-1324.	3.8	61
14	Properties of CMAS glass from desert sand. Ceramics International, 2015, 41, 3901-3909.	4.8	56
15	Mechanical and microstructural characterization of boron nitride nanotubes-reinforced SOFC seal glass composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 460-461, 509-515.	5.6	51
16	Influence of Several Metal Ions on the Gelation Activation Energy of Silicon Tetraethoxide. Journal of the American Ceramic Society, 1990, 73, 2647-2652.	3.8	49
17	Phase transformations in xerogels of mullite composition. Journal of Materials Science, 1990, 25, 2815-2821.	3.7	48
18	High-temperature interactions of desert sand CMAS glass with yttrium disilicate environmental barrier coating material. Ceramics International, 2018, 44, 22738-22743.	4.8	48

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19	Raman Study of Hi-Nicalon-Fiber-Reinforced Celsian Composites: II, Residual Stress in Fibers. Journal of the American Ceramic Society, 2001, 84, 1136-1142.	3.8	45
20	Thermal conductivity of zirconia-alumina composites. Ceramics International, 2005, 31, 911-916.	4.8	45
21	Sol-Gel Synthesis of Magnesium Oxide-Silicon Dioxide Glass Compositions. Journal of the American Ceramic Society, 1988, 71, 666-672.	3.8	44
22	In-plane and interlaminar shear strength of a unidirectional Hi-Nicalon fiber-reinforced celsian matrix composite. Ceramics International, 2002, 28, 527-540.	4.8	44
23	Crystallization kinetics of calcium-magnesium aluminosilicate (CMAS) glass. Surface and Coatings Technology, 2014, 259, 608-615.	4.8	44
24	Crystallization and Properties of Sr-Ba Aluminosilicate Glass-Ceramic Matrices. Ceramic Engineering and Science Proceedings, 0, , 1222-1234.	0.1	43
25	Superconducting Glass-Ceramics in the Bi-Sr-Ca-Cu-O System. Journal of the American Ceramic Society, 1990, 73, 1165-1171.	3.8	40
26	Celsian formation in fiber-reinforced barium aluminosilicate glass-ceramic matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 342, 23-27.	5.6	40
27	Crystallization of fluorozirconate glasses. Materials Research Bulletin, 1984, 19, 577-590.	5.2	38
28	High T <sub>c</sub> screen-printed YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> films: Effect of the substrate material. Applied Physics Letters, 1988, 53, 603-605.	3.3	37
29	Thermochemistry of calcium rare-earth silicate oxyapatites. Journal of the American Ceramic Society, 2020, 103, 1446-1453.	3.8	36
30	Strong and Tough Hi-Nicalon-Fiber-Reinforced Celsian-Matrix Composites. Journal of the American Ceramic Society, 1997, 80, 2407-2409.	3.8	34
31	Superconducting Bi <sub>1.5</sub> Pb <sub>0.5</sub> Sr <sub>2</sub> Ca <sub>2</sub> Cu <sub>3</sub> O <sub>x</sub> ceramics by rapid melt quenching and glass crystallization. Journal of Applied Physics, 1990, 68, 1143-1150.	2.5	32
32	CVD SiC fiber-reinforced barium aluminosilicate glass-ceramic matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1996, 220, 129-139.	5.6	32
33	Effect of fluoride doping on the transition temperature of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>6.5+δ</sub> . Applied Physics Letters, 1988, 52, 838-840.	3.3	31
34	Flexure Strength, Fracture Toughness, and Slow Crack Growth of YSZ/Alumina Composites at High Temperatures. Journal of the American Ceramic Society, 2005, 88, 1474-1480.	3.8	29
35	Shear Strength as a Function of Test Rate for SiC <sub>f</sub> /BSAS Ceramic Matrix Composite at Elevated Temperature. Journal of the American Ceramic Society, 2004, 87, 1912-1918.	3.8	28
36	Mechanical and Thermal Properties of Advanced Oxide Materials for Higher-Temperature Coatings Applications. Ceramic Engineering and Science Proceedings, 0, , 11-19.	0.1	28

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37	Elevated-temperature stress rupture in interlaminar shear of a Hi-Nic SiC/SiC ceramic matrix composite. Composites Science and Technology, 2009, 69, 890-897.	7.8	28
38	Calcium-magnesium aluminosilicate (CMAS) interactions with ytterbium silicate environmental barrier coating material at elevated temperatures. Ceramics International, 2020, 46, 16733-16742.	4.8	28
39	Thermochemical interactions between CMAS and Ca <sub>2</sub> Y <sub>8</sub> (SiO <sub>4</sub> ) <sub>6</sub> O <sub>2</sub> apatite environmental barrier coating material. Journal of the European Ceramic Society, 2019, 39, 5380-5390.	5.7	27
40	Raman Study of Hi-Nicalon Fiber-Reinforced Celsian Composites: I, Distribution and Nanostructure of Different Phases. Journal of the American Ceramic Society, 2001, 84, 1129-1135.	3.8	24
41	Hi-Nicalon fiber-reinforced celsian matrix composites: Influence of interface modification. Journal of Materials Research, 1998, 13, 1530-1537.	2.6	23
42	Delayed failure of ceramic matrix composites in tension at elevated temperatures. Journal of the European Ceramic Society, 2005, 25, 1629-1636.	5.7	20
43	Characterization of Thermochemical and Thermomechanical Properties of Eyjafjallajökull Volcanic Ash Glass. Coatings, 2020, 10, 100.	2.6	18
44	Glass-derived superconducting ceramics with zero resistance at 107 K in the Bi <sub>1.5</sub> Pb <sub>0.5</sub> Sr <sub>2</sub> Ca <sub>2</sub> Cu <sub>3</sub> O <sub>x</sub> system. Applied Physics Letters, 1989, 55, 1572-1574.	3.3	15
45	Chemical vapor deposited SiC (SCS-0) fiber-reinforced strontium aluminosilicate glass-ceramic composites. Journal of Materials Research, 1997, 12, 745-753.	2.6	15
46	Mechanical behavior of silicon carbide fiber-reinforced strontium aluminosilicate glass-ceramic composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 231, 117-127.	5.6	14
47	Sol-gel synthesis of La <sub>0.6</sub> Sr <sub>0.4</sub> CoO <sub>3-x</sub> and Sm <sub>0.5</sub> Sr <sub>0.5</sub> CoO <sub>3-x</sub> cathode nanopowders for solid oxide fuel cells. Ceramics International, 2012, 38, 5535-5541.	4.8	10
48	Surface Tension of ZrF <sub>4</sub> -BaF <sub>2</sub> -LaF <sub>3</sub> Glass. Journal of the American Ceramic Society, 1984, 67, C-197-C-197.	3.8	9
49	Effect of processing parameters on the characteristics of high-T <sub>c</sub> superconductor YBa <sub>2</sub> Cu <sub>3</sub> O <sub>y</sub> . Journal of Materials Research, 1988, 3, 1304-1310.	2.6	9
50	Molten calcium-magnesium-aluminosilicate interactions with ytterbium disilicate environmental barrier coating. Journal of Materials Research, 2020, 35, 2346-2357.	2.6	9
51	Strength and Fracture Toughness of Ysz/Alumina Composites for Solid Oxide Fuel Cells. Ceramic Engineering and Science Proceedings, 0, , 741-750.	0.1	8
52	Crystallization Of Heavy Metal Fluoride Glasses. , 1984, 0484, 51.		7
53	X-ray diffraction studies of phase transformations in heavy-metal fluoride glasses. Journal of Materials Science, 1985, 20, 2794-2800.	3.7	7
54	Mechanical properties of Hi-Nicalon fiber-reinforced celsian composites after high-temperature exposures in air. Journal of the European Ceramic Society, 2009, 29, 525-535.	5.7	7

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55	Slow-crack-growth and indentation damage in calcium magnesium aluminosilicate (CMAS) glass from desert sand. <i>Ceramics International</i> , 2018, 44, 2676-2682.	4.8	7
56	SiC Fiber-Reinforced Celsian Composites. , 2005, , 227-249.		5
57	Surface Crystallization of a Fluoride Glass. <i>Journal of the American Ceramic Society</i> , 1983, 66, C-132-C-133.	3.8	4
58	Annealing of electron damage in Mid-IR transmitting fluoride glass. <i>Materials Research Bulletin</i> , 1986, 21, 281-288.	5.2	4
59	High-Tc of undoped and fluorine-doped YBa <sub>2</sub> Cu <sub>3</sub> O <sub>y</sub> films on ceramic substrates by screen printing. <i>Materials Letters</i> , 1992, 13, 7-11.	2.6	3
60	Thermochemical degradation of HfSiO <sub>4</sub> by molten CMAS. <i>Ceramics International</i> , 2022, 48, 16499-16504.	4.8	3
61	Mechanical Behavior of Solid Oxide Fuel Cell (SOFC) Seal Glass-Boron Nitride Nanotubes Composite. <i>Ceramic Engineering and Science Proceedings</i> , 0, , 305-314.	0.1	0