

# Dinesh K Shetty

## List of Publications by Citations

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|-------------------|-------------------------|---------------|-----------------|
| 57<br>papers      | 1,717<br>citations      | 22<br>h-index | 40<br>g-index   |
| 57<br>ext. papers | 1,800<br>ext. citations | 4<br>avg, IF  | 4.41<br>L-index |

| #  | Paper   | IF   | Citations |
|----|---|------|-----------|
| 57 | Shear-Lag Analysis of Fiber Push-Out (Indentation) Tests for Estimating Interfacial Friction Stress in Ceramic-Matrix Composites. <i>Journal of the American Ceramic Society</i> , <b>1988</b> , 71, C-107-C-109  | 3.8  | 145       |
| 56 | Mixed-mode fracture in biaxial stress state: Application of the diametral-compression (Brazilian disk) test. <i>Engineering Fracture Mechanics</i> , <b>1987</b> , 26, 825-840  | 4.2  | 137       |
| 55 | Rising Crack-Growth-Resistance (R-Curve) Behavior of Toughened Alumina and Silicon Nitride. <i>Journal of the American Ceramic Society</i> , <b>1991</b> , 74, 2634-2641  | 3.8  | 123       |
| 54 | Interfacial Bonding and Friction in Silicon Carbide [Filament]-Reinforced Ceramic- and Glass-Matrix Composites. <i>Journal of the American Ceramic Society</i> , <b>1989</b> , 72, 1891-1898  | 3.8  | 108       |
| 53 | Phase Constitution and Mechanical Properties of Carbides in the Ta-C System. <i>Journal of the American Ceramic Society</i> , <b>2009</b> , 92, 2404-2407   | 3.8  | 97        |
| 52 | Fracture Toughness of Polycrystalline Ceramics in Combined Mode I and Mode II Loading. <i>Journal of the American Ceramic Society</i> , <b>1989</b> , 72, 78-84   | 3.8  | 79        |
| 51 | Crack Stability and Strength Distribution of Ceramics That Exhibit Rising Crack-Growth-Resistance (R-Curve) Behavior. <i>Journal of the American Ceramic Society</i> , <b>1989</b> , 72, 1158-1162  | 3.8  | 65        |
| 50 | Transformation Zone Shape, Size, and Crack-Growth-Resistance [R-Curve] Behavior of Ceria-Partially-Stabilized Zirconia Polycrystals. <i>Journal of the American Ceramic Society</i> , <b>1989</b> , 72, 921-928   | 3.8  | 62        |
| 49 | Interfacial Sliding Friction in Silicon Carbide-Borosilicate Glass Composites: A Comparison of Pullout and Pushout Tests. <i>Journal of the American Ceramic Society</i> , <b>1991</b> , 74, 115-122  | 3.8  | 51        |
| 48 | Strength Improvement in Transformation-Toughened Alumina by Selective Phase Transformation. <i>Journal of the American Ceramic Society</i> , <b>1987</b> , 70, 714-718  | 3.8  | 49        |
| 47 | Reliability Analysis of Structural Ceramics Subjected to Biaxial Flexure. <i>Journal of the American Ceramic Society</i> , <b>1991</b> , 74, 333-344  | 3.8  | 48        |
| 46 | Indentation Fracture Response and Damage Resistance of Al <sub>2</sub> O <sub>3</sub> -ZrO <sub>2</sub> Composites Strengthened by Transformation-Induced Residual Stresses. <i>Journal of the American Ceramic Society</i> , <b>1988</b> , 71, C-501-C-505 | 3.8  | 48        |
| 45 | Fatigue Crack Propagation in Ceria-Partially-Stabilized Zirconia (Ce-TZP)-Alumina Composites. <i>Journal of the American Ceramic Society</i> , <b>1990</b> , 73, 2992-3001  | 3.8  | 47        |
| 44 | Toughening of layered ceramic composites with residual surface compression: effects of layer thickness. <i>Engineering Fracture Mechanics</i> , <b>2001</b> , 68, 1-7   | 4.2  | 45        |
| 43 | Transformation Plasticity and Toughening in CeO <sub>2</sub> -Partially-Stabilized Zirconia-Alumina (Ce-TZP/Al <sub>2</sub> O <sub>3</sub> ) Composites Doped with MnO. <i>Journal of the American Ceramic Society</i> , <b>1992</b> , 75, 1229-1238        | 3.8  | 45        |
| 42 | Effects of carbon nanofibers on cell morphology, thermal conductivity and crush strength of carbon foam. <i>Carbon</i> , <b>2010</b> , 48, 68-80  | 10.4 | 44        |
| 41 | Matrix Cracking in Ceramic-Matrix Composites. <i>Journal of the American Ceramic Society</i> , <b>1993</b> , 76, 2497-2504  | 3.8  | 39        |

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|----|---|-----|----|
| 40 | $\text{Ta}_4\text{C}_3\text{N}$ : A High Fracture Toughness Carbide with Rising-Crack-Growth-Resistance (R-Curve) Behavior. <i>Journal of the American Ceramic Society</i> , <b>2015</b> , 98, 2601-2608                    | 3.8 | 32 |
| 39 | R-Curve Behavior and Flaw Insensitivity of Ce-TZP/ $\text{Al}_2\text{O}_3$ Composite. <i>Journal of the American Ceramic Society</i> , <b>1993</b> , 76, 961-969  | 3.8 | 31 |
| 38 | Transformation Zone Shape Effects on Crack Shielding in Ceria-Partially-Stabilized Zirconia (Ce-TZP)/Alumina Composites. <i>Journal of the American Ceramic Society</i> , <b>1992</b> , 75, 2991-2994                       | 3.8 | 26 |
| 37 | Cleavage fracture of steel in the upper ductile-brittle transition region. <i>Engineering Fracture Mechanics</i> , <b>1983</b> , 17, 461-470  | 4.2 | 26 |
| 36 | Effect of Additives on the Activation Energy for Sintering of Silicon Carbide. <i>Journal of the American Ceramic Society</i> , <b>2008</b> , 91, 1135-1140   | 3.8 | 24 |
| 35 | Effects of Additives on the Pressure-Assisted Densification and Properties of Silicon Carbide. <i>Journal of the American Ceramic Society</i> , <b>2008</b> , 91, 2163-2169   | 3.8 | 20 |
| 34 | Extreme-Value Statistics Analysis of Fracture Strengths of a Sintered Silicon Nitride Failing from Pores. <i>Journal of the American Ceramic Society</i> , <b>1992</b> , 75, 2116-2124                                      | 3.8 | 19 |
| 33 | Crack Shielding in Ce-TZP/ $\text{Al}_2\text{O}_3$ Composites: Comparison of Fatigue and Sustained Load Crack Growth Specimens. <i>Journal of the American Ceramic Society</i> , <b>1994</b> , 77, 105-117                  | 3.8 | 18 |
| 32 | Equivalence of Physically Based Statistical Fracture Theories for Reliability Analysis of Ceramics in Multiaxial Loading. <i>Journal of the American Ceramic Society</i> , <b>1990</b> , 73, 1917-1921                      | 3.8 | 18 |
| 31 | Lower-bound fracture toughness of a reactor-pressure-vessel steel. <i>Engineering Fracture Mechanics</i> , <b>1981</b> , 14, 833-842  | 4.2 | 18 |
| 30 | Analysis of creep deformation under cyclic loading conditions. <i>Materials Science and Engineering</i> , <b>1975</b> , 20, 261-266   |     | 17 |
| 29 | On the Effect of Birefringence on Light Transmission in Polycrystalline Magnesium Fluoride. <i>Journal of the American Ceramic Society</i> , <b>2015</b> , 98, 829-837  | 3.8 | 16 |
| 28 | Thermal expansion behaviors of yttrium tungstates in the $\text{WO}_3\text{-ZrO}_2$ system. <i>Ceramics International</i> , <b>2013</b> , 39, 8421-8427   | 5.1 | 16 |
| 27 | Short-Crack Fracture Toughness of Silicon Carbide. <i>Journal of the American Ceramic Society</i> , <b>2009</b> , 92, 179-185   | 3.8 | 16 |
| 26 | Cyclic Fatigue of Ce-TZP/ $\text{Al}_2\text{O}_3$ Composites: Role of the Degradation of Transformation Zone Shielding. <i>Journal of the American Ceramic Society</i> , <b>1995</b> , 78, 599-608                          | 3.8 | 16 |
| 25 | Processing of Dense $\text{Ta}_4\text{C}_3\text{N}$ by Reaction Sintering of Ta and TaC Powder Mixture. <i>Journal of the American Ceramic Society</i> , <b>2014</b> , 97, 3826-3834  | 3.8 | 14 |
| 24 | Synthesis and characterization of $\text{Al}_2\text{O}_3\text{-Sc}_2\text{O}_3\text{-(WO}_4)_3$ ceramics for low-expansion infrared-transmitting windows. <i>Journal of Materials Science</i> , <b>2012</b> , 47, 6286-6296 | 4.3 | 14 |
| 23 | Transient wear of silicon nitride in lubricated rolling contact. <i>Wear</i> , <b>1998</b> , 223, 58-65   | 3.5 | 14 |

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|----|--|-----|----|
| 22 | Micromechanics of crack bridging in sapphire/epoxy composites. <i>Composites Science and Technology</i> , <b>1998</b> , 58, 1763-1773  | 8.6 | 13 |
| 21 | Rolling-Contact Fatigue and Wear of CVD-SiC with Residual Surface Compression. <i>Journal of the American Ceramic Society</i> , <b>1995</b> , 78, 2307-2313  | 3.8 | 13 |
| 20 | A Functionally Graded Carbide in the TaC System. <i>Journal of the American Ceramic Society</i> , <b>2016</b> , 99, 392-394  | 3.8 | 13 |
| 19 | Direct measurement of crack shielding in ceramics by the application of Raman microprobe spectroscopy. <i>Journal of Materials Research</i> , <b>1994</b> , 9, 3183-3193   | 2.5 | 12 |
| 18 | Dielectric Breakdown of Polycrystalline Alumina: A Weakest-Link Failure Analysis. <i>Journal of the American Ceramic Society</i> , <b>2013</b> , 96, 3430-3439   | 3.8 | 11 |
| 17 | Effects of composition and microstructure on the slurry erosion of WC-Co cermets. <i>Wear</i> , <b>1987</b> , 114, 1-18  | 3.5 | 11 |
| 16 | First-principles study on surface stability of tantalum carbides. <i>Surface Science</i> , <b>2016</b> , 644, 24-28  | 1.8 | 10 |
| 15 | Role of Autocatalytic Transformation in Zone Shape and Toughening of Ceria/Tetragonal-Zirconia/Alumina (Ce-TZP/Al <sub>2</sub> O <sub>3</sub> ) Composites. <i>Journal of the American Ceramic Society</i> , <b>1991</b> , 74, 678-681                           | 3.8 | 8  |
| 14 | An Assessment of the Applicability of Particle Light Scattering Theories to Birefringent Polycrystalline Ceramics. <i>Journal of the American Ceramic Society</i> , <b>2016</b> , 99, 551-556  | 3.8 | 7  |
| 13 | Critical Stresses for Extension of Filament-Bridged Matrix Cracks in Ceramic-Matrix Composites: An Assessment with a Model Composite with Tailored Interfaces. <i>Journal of the American Ceramic Society</i> , <b>1995</b> , 78, 1139-1146                      | 3.8 | 6  |
| 12 | R Curves and Crack-Stability Map: Application to Ce-TZP/Al <sub>2</sub> O <sub>3</sub> . <i>Journal of the American Ceramic Society</i> , <b>2007</b> , 90, 3554-3558  | 3.8 | 5  |
| 11 | Load-Bearing Capacity in Quasi-Static Compression and Bearing Toughness of Silicon Nitride Balls. <i>Tribology Transactions</i> , <b>2004</b> , 47, 522-526  | 1.8 | 4  |
| 10 | Transformation zones, crack shielding, and crack-growth resistance of Ce-TZP/alumina composite in mode II and combined mode II and mode I loading. <i>Engineering Fracture Mechanics</i> , <b>2003</b> , 70, 2569-2585   | 4.2 | 4  |
| 9  | Contact damage initiation in silicon nitride in Hertzian indentation: role of microstructure. <i>Journal of Materials Science</i> , <b>2007</b> , 42, 3508-3519  | 4.3 | 3  |
| 8  | Prediction of Crack Paths in Particulate Composites Using Electrical Analog. <i>Journal of the American Ceramic Society</i> , <b>1990</b> , 73, 340-345  | 3.8 | 3  |
| 7  | Synthesis, characterization, and densification of Al <sub>2-x</sub> Sc <sub>x</sub> (WO <sub>4</sub> ) <sub>3</sub> ceramics for low-expansion infrared-transparent windows <b>2011</b> ,  |     | 2  |
| 6  | Birefringence and grain-size effects on optical transmittance of polycrystalline magnesium fluoride <b>2009</b> ,  |     | 2  |
| 5  | Fabrication of high-density and translucent Al-containing garnet, Li <sub>7</sub> La <sub>3</sub> Zr <sub>2</sub> TaxO <sub>12</sub> (LLZTO) solid-state electrolyte by pressure filtration and sintering. <i>Solid State Ionics</i> , <b>2021</b> , 364, 115640 | 3.3 | 2  |

- 4 Colloidal processing and optical transmittance of submicron polycrystalline alumina **2011**, 1
- 3 Functional phase grading of  $\text{Ta}_4\text{C}_3\text{-x}$ : Kinetics and properties. *Journal of the American Ceramic Society*, **2019**, 102, 3771-3778 3.8
- 2 Comparison between high temperature dead-load creep and stress-relaxation deformation in iron-doped polycrystalline aluminum and magnesium oxides.. *Journal of the Ceramic Association Japan*, **1983**, 91, 251-257
- 1 C-Crack Initiation in Quasi-Static and Impact Loading of a Bearing-Grade Silicon Nitride. *Journal of ASTM International*, **2008**, 5, 101363