

# Vinod K Tewary

## List of Publications by Year in descending order

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97  
papers

1,687  
citations

279798

23  
h-index

315739

38  
g-index

99  
all docs

99  
docs citations

99  
times ranked

1053  
citing authors

#	ARTICLE	IF	CITATIONS
1	Green-function method for lattice statics. <i>Advances in Physics</i> , 1973, 22, 757-810.	14.4	226
2	Effect of elastic deformation on frictional properties of few-layer graphene. <i>Physical Review B</i> , 2012, 85, .	3.2	110
3	Lattice imperfections studied by use of lattice Green's functions. <i>Physical Review B</i> , 1992, 46, 10613-10622.	3.2	82
4	Singular behavior of the Debye-Waller factor of graphene. <i>Physical Review B</i> , 2009, 79, .	3.2	77
5	Surface acoustic wave methods to determine the anisotropic elastic properties of thin films*. <i>Measurement Science and Technology</i> , 2001, 12, 1486-1494.	2.6	58
6	Elastic Green's function for a composite solid with a planar interface. <i>Journal of Materials Research</i> , 1989, 4, 113-123.	2.6	55
7	Lattice distortion due to gas interstitials in bcc metals. <i>Journal of Physics F: Metal Physics</i> , 1973, 3, 1515-1523.	1.6	52
8	A new method for the measurement of series resistance of solar cells. <i>Journal Physics D: Applied Physics</i> , 1981, 14, 1643-1646.	2.8	49
9	Parametric interatomic potential for graphene. <i>Physical Review B</i> , 2009, 79, .	3.2	49
10	Temperature effects in silicon solar cells. <i>Solid-State Electronics</i> , 1980, 23, 1021-1028.	1.4	42
11	Computationally efficient representation for elastostatic and elastodynamic Green's functions for anisotropic solids. <i>Physical Review B</i> , 1995, 51, 15695-15702.	3.2	36
12	On a relation between the monovacancy formation energy and the Debye temperature for metals. <i>Journal of Physics F: Metal Physics</i> , 1973, 3, 704-708.	1.6	34
13	Greens functions for boundary element analysis of anisotropic bimetals. <i>Engineering Analysis With Boundary Elements</i> , 2001, 25, 279-288.	3.7	34
14	Theory of the void lattice in molybdenum. <i>Journal of Physics F: Metal Physics</i> , 1972, 2, L69-L72.	1.6	32
15	A computationally efficient representation for propagation of elastic waves in anisotropic solids. <i>Journal of the Acoustical Society of America</i> , 1992, 91, 1888-1896.	1.1	31
16	Elastic Green's function for a composite solid with a planar crack in the interface. <i>Journal of Materials Research</i> , 1989, 4, 124-136.	2.6	30
17	Theory of chemically induced kink formation on cracks in silica. I.3-D crack Green's functions. <i>Journal of Materials Research</i> , 1987, 2, 619-630.	2.6	29
18	Stratified graphene/noble metal systems for low-loss plasmonics applications. <i>Physical Review B</i> , 2013, 87, .	3.2	28

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19	Multiscale Green's-function method for modeling point defects and extended defects in anisotropic solids: Application to a vacancy and free surface in copper. <i>Physical Review B</i> , 2004, 69, .	3.2	27
20	Three-dimensional Green's functions of steady-state motion in anisotropic half-spaces and bimetals. <i>Engineering Analysis With Boundary Elements</i> , 2004, 28, 1069-1082.	3.7	27
21	Theory of defect superlattices in crystals with application to void/vacancy and nitrogen interstitial lattices in tantalum and vanadium. <i>Journal of Physics F: Metal Physics</i> , 1973, 3, 1275-1284.	1.6	24
22	Change of phonon dispersion curves due to interstitials in Al. <i>Zeitschrift für Physik B Condensed Matter and Quanta</i> , 1975, 21, 255-261.	1.9	24
23	Manipulation of graphene's dynamic ripples by local harmonic out-of-plane excitation. <i>Nanotechnology</i> , 2013, 24, 055701.	2.6	23
24	Boundary integral equation formulation for Interface cracks in anisotropic materials. <i>Computational Mechanics</i> , 1997, 20, 261-266.	4.0	22
25	Atomic theory of fracture of brittle materials: Application to covalent semiconductors. <i>Journal of Materials Research</i> , 1991, 6, 1553-1566.	2.6	21
26	Calculations on the Low-Temperature Specific Heat of Selenium and Tellurium. <i>Journal of Chemical Physics</i> , 1963, 38, 417-419.	3.0	19
27	Green's-function method for modeling surface acoustic wave dispersion in anisotropic material systems and determination of material parameters. <i>Wave Motion</i> , 2004, 40, 399-412.	2.0	17
28	On a semi-continuum Green function method for lattice dynamics with application to copper. <i>Journal of Physics F: Metal Physics</i> , 1971, 1, 554-569.	1.6	16
29	Elastic Green's function for a bimaterial composite solid containing a free surface normal to the interface. <i>Journal of Materials Research</i> , 1991, 6, 2592-2608.	2.6	16
30	Lattice statics of interfaces and interfacial cracks in bimaterial solids. <i>Journal of Materials Research</i> , 1992, 7, 1018-1028.	2.6	16
31	Theory of elastic wave propagation in anisotropic film on anisotropic substrate: TiN film on single-crystal Si. <i>Journal of the Acoustical Society of America</i> , 2002, 112, 925-935.	1.1	14
32	Green's function-based multiscale modeling of defects in a semi-infinite silicon substrate. <i>International Journal of Solids and Structures</i> , 2005, 42, 4722-4737.	2.7	14
33	Atomistic simulation of a graphene-nanoribbon-metal interconnect. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 355006.	1.8	14
34	Simulation of lattice strain due to a CNT-metal interface. <i>Nanotechnology</i> , 2011, 22, 085703.	2.6	14
35	Lattice statics Green's function method for calculation of atomistic structure of grain boundary interfaces in solids: Part I. Harmonic theory. <i>Journal of Materials Research</i> , 1989, 4, 309-319.	2.6	13
36	Green's function for steady-state heat conduction in a bimaterial composite solid. <i>Computational Mechanics</i> , 2000, 25, 627-634.	4.0	13

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37	Elastostatic Green's function for advanced materials subject to surface loading. Journal of Engineering Mathematics, 2004, 49, 289-304.	1.2	13
38	Response of a silicon p-n solar cell to high intensity light. Journal Physics D: Applied Physics, 1980, 13, 1885-1898.	2.8	12
39	Multiscale Green's function for the deflection of graphene lattice. Physical Review B, 2008, 77, .	3.2	12
40	Lattice dynamics of a solid with a screw dislocation. Journal of Physics C: Solid State Physics, 1974, 7, 261-278.	1.5	11
41	Theory of chemically induced kink formation on cracks in silica. II. Force law calculations. Journal of Materials Research, 1987, 2, 631-637.	2.6	11
42	Multiscale model of near-spherical germanium quantum dots in silicon. Nanotechnology, 2007, 18, 105402.	2.6	11
43	Design and testing of a uniformly illuminating nontracking concentrator. Solar Energy, 1981, 27, 387-391.	6.1	10
44	Open circuit voltage decay in p-n junction diodes at high levels of injection. Solid-State Electronics, 1986, 29, 561-570.	1.4	10
45	A relation between the surface energy and the Debye temperature for cubic solids. Journal of Materials Research, 1990, 5, 1118-1122.	2.6	10
46	Multiscale modeling of point defects in Si-Ge(001) quantum wells. Physical Review B, 2007, 75, .	3.2	10
47	Extending the time scale in molecular dynamics simulations: Propagation of ripples in graphene. Physical Review B, 2009, 80, .	3.2	10
48	Theory of open-circuit photovoltage decay in a finite base solar cell with drift field. Journal Physics D: Applied Physics, 1982, 15, 1077-1087.	2.8	9
49	Surface waves in three-dimensional half-space tetragonal solids. Journal of the Acoustical Society of America, 1996, 100, 86-88.	1.1	9
50	Formation of a surface quantum dot near laterally and vertically neighboring dots. Physical Review B, 2003, 68, .	3.2	9
51	Theory of open circuit voltage decay in a p-n junction diode at high injection. Solid-State Electronics, 1982, 25, 903-907.	1.4	8
52	Materials informatics: Facilitating the integration of data-driven materials research with education. Jom, 2008, 60, 51-52.	1.9	8
53	Tunnelling levels of librator in Ohfield. Journal of Physics C: Solid State Physics, 1973, 6, 1999-2009.	1.5	7
54	Green's function for anisotropic half-space solids in frequency space and calculation of mechanical admittance. Journal of the Acoustical Society of America, 1996, 100, 2960-2963.	1.1	7

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55	The Fourier expansion method for computation of the frequency distribution function of crystals. Proceedings of the Physical Society, 1965, 86, 1225-1233.	1.6	6
56	The Direct Construction of the Lattice Green Function. , 1972, , 155-176.		6
57	Measurements of the open-circuit photovoltage decay in a silicon solar cell. Solar Cells, 1983, 9, 289-293.	0.6	6
58	Phenomenological interatomic potentials for silicon, germanium and their binary alloy. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 3811-3816.	2.1	6
59	Generalized Green's function molecular dynamics for canonical ensemble simulations. Physical Review E, 2018, 97, 053310.	2.1	6
60	Evaluation of the Fourier coefficients in the expansion of the lattice Green function and the frequency spectrum. Proceedings of the Physical Society, 1967, 92, 987-989.	1.6	5
61	Effect of pn coupling on steady-state and transient characteristics of a pn junction solar cell. Journal Physics D: Applied Physics, 1981, 14, 1115-1124.	2.8	5
62	Lattice-statics model for edge dislocations in crystals. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2000, 80, 1445-1452.	0.6	5
63	Static responses of a multilayered anisotropic piezoelectric structure to point force and point charge. Smart Materials and Structures, 2004, 13, 175-183.	3.5	5
64	Green's function modeling of response of two-dimensional materials to point probes for scanning probe microscopy. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 1750-1756.	2.1	5
65	Activation energy of gas interstitials in BCC metals. Journal of Physics F: Metal Physics, 1973, 3, 1910-1914.	1.6	4
66	Mossbauer, effect for $^{57}\text{Fe}$ in copper. Journal of Physics F: Metal Physics, 1973, 3, 1256-1260.	1.6	4
67	Theoretical study of the fracture of brittle materials: atomistic calculations. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1991, 146, 273-289.	5.6	4
68	Generalized plane strain analysis of a bimaterial composite containing a free surface normal to the interface. Journal of Materials Research, 1991, 6, 2609-2622.	2.6	4
69	Elastic Green's function for a damaged interface in anisotropic materials. Journal of Materials Research, 1996, 11, 537-544.	2.6	4
70	Inversion of elastic waveform data in anisotropic solids using the delta-function representation of the Green's function. Journal of the Acoustical Society of America, 1998, 104, 1716-1719.	1.1	4
71	Change in low-temperature thermodynamic functions of a semiconductor due to a quantum dot. Physical Review B, 2002, 66, .	3.2	4
72	Continuum Dyson's equation and defect Green's function in a heterogeneous anisotropic solid. Mechanics Research Communications, 2004, 31, 405-414.	1.8	4

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73	Semi-discrete Green's function for solution of anisotropic thermal/electrostatic Boussinesq and Mindlin problems: Application to two-dimensional material systems. Engineering Analysis With Boundary Elements, 2020, 110, 56-68.	3.7	4
74	Surface boundary condition for solar cell diffusion equation. Journal Physics D: Applied Physics, 1980, 13, 835-837.	2.8	3
75	Lattice statics Green's function method for calculation of atomistic structure of grain boundary interfaces in solids: Part II. Anharmonic theory. Journal of Materials Research, 1989, 4, 320-326.	2.6	3
76	Theory of capacitive probe method for noncontact characterization of dielectric properties of materials. Journal of Materials Research, 1991, 6, 629-638.	2.6	3
77	Green's function for generalized Hilbert problem for cracks and free surfaces in composite materials. Journal of Materials Research, 1991, 6, 2585-2591.	2.6	3
78	Effect of plasma reflection on open-circuit voltage of a solar cell at ultrahigh light intensities. Applied Physics Letters, 1980, 37, 58-59.	3.3	2
79	Effect of pn coupling on open-circuit photovoltage decay in a silicon pn junction solar cell. Journal Physics D: Applied Physics, 1983, 16, 1741-1747.	2.8	2
80	Theory of elastic waves in three-dimensional anisotropic plates. Journal of the Acoustical Society of America, 1996, 100, 2964-2968.	1.1	2
81	Theory of nuclear resonant inelastic x-ray scattering from Fe57 in a single-walled carbon nanotube. Physical Review B, 2007, 75, .	3.2	2
82	Ullmann-like reactions for the synthesis of complex two-dimensional materials. Nanotechnology, 2016, 27, 442501.	2.6	2
83	Nuclear Size Correction to the Relativistic Thomas Fermi Equation of State and Its Effect on Chandrasekhar's Mass Limit. Progress of Theoretical Physics, 1963, 29, 691-698.	2.0	1
84	Elastic green's function for a bimaterial composite solid containing a crack inclined to the interface. Computational Mechanics, 1996, 19, 41-48.	4.0	1
85	Lattice correction to mechanical admittance of solids. Journal of the Acoustical Society of America, 1996, 100, 89-91.	1.1	1
86	NSF NSDL Materials Digital Library & MSE Education. Materials Research Society Symposia Proceedings, 2005, 909, 1.	0.1	1
87	Multiscale Green's function for silicene and its application to calculation of the strain field due to a vacancy. MRS Advances, 2021, 6, 734.	0.9	1
88	Green's Function Method for Calculation of Strain Field Due to a Quantum Dot in a Semi-Infinite Anisotropic Solid. Materials Research Society Symposia Proceedings, 2002, 727, 1.	0.1	1
89	Carbon fibre composite as collimator and filter for stress waves. Journal Physics D: Applied Physics, 1971, 4, L5-L6.	2.8	0
90	Lattice Statics Green's Function for Modeling of Dislocations in Crystals. Materials Research Society Symposia Proceedings, 1998, 529, 15.	0.1	0

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91	Multiscale Modeling of Point Defects and Free Surfaces in Semi-infinite Solids. Materials Research Society Symposia Proceedings, 2002, 731, 991.	0.1	0
92	Multiscale Modeling of Mechanical Response of Quantum Nanostructures. Materials Research Society Symposia Proceedings, 2003, 778, 921.	0.1	0
93	Effects of Laterally and Vertically Neighboring Quantum Dots on Formation of a New Quantum Dot. Materials Research Society Symposia Proceedings, 2003, 775, 9501.	0.1	0
94	Boundary-integral Analysis of Anisotropic Bimaterials with an Interface Crack. , 1995, , 2868-2873.		0
95	Elastic Greenâ€™s function for a composite solid containing a crack at an angle to the interface. , 1995, , 2902-2907.		0
96	Fidelity of Michelson Interferometric and Conical Piezoelectric Ultrasonic Transducers. , 1996, , 971-978.		0
97	Multiscale Modeling of a Germanium Quantum Dot in Silicon. , 2006, , 89-98.		0