Konstantinos Papagelis

List of Publications by Citations

124 papers	8,342 citations	32 h-index	90 g-index
128 ext. papers	9,182 ext. citations	5 avg, IF	5.82 L-index

#	Paper	IF	Citations
124	Carbon nanotube–polymer composites: Chemistry, processing, mechanical and electrical properties. *Progress in Polymer Science*, **2010**, 35, 357-401	29.6	2413
123	Chemical oxidation of multiwalled carbon nanotubes. *Carbon*, **2008**, 46, 833-840	10.4	2082
122	Subjecting a graphene monolayer to tension and compression. *Small*, **2009**, 5, 2397-402	11	352
121	Compression behavior of single-layer graphenes. *ACS Nano*, **2010**, 4, 3131-8	16.7	257
120	Raman 2D-band splitting in graphene: theory and experiment. *ACS Nano*, **2011**, 5, 2231-9	16.7	228
119	Production and processing of graphene and related materials. *2D Materials*, **2020**, 7, 022001	5.9	179
118	Development of a universal stress sensor for graphene and carbon fibres. *Nature Communications*, **2011**, 2,	17.4	152
117	Temperature-induced valence transition and associated lattice collapse in samarium fulleride. *Nature*, **2003**, 425, 599-602	50.4	123
116	Deformation of wrinkled graphene. *ACS Nano*, **2015**, 9, 3917-25	16.7	120
115	Temperature dependence of exciton peak energies in ZnS, ZnSe, and ZnTe epitaxial films. *Journal of Applied Physics*, **1999**, 86, 4403-4411	2.5	108
114	Two-dimensional electronic and vibrational band structure of uniaxially strained graphene from ab initio calculations. *Physical Review B*, **2009**, 80,	3.3	92
113	Stress transfer mechanisms at the submicron level for graphene/polymer systems. *ACS Applied Materials & Interfaces*, **2015**, 7, 4216-23	9.5	90
112	Raman study of Mg, Si, O, and N implanted GaN. *Journal of Applied Physics*, **2003**, 94, 4389-4394	2.5	87
111	Phonon properties of graphene derived from molecular dynamics simulations. *Scientific Reports*, **2015**, 5, 12923	4.9	83
110	In-plane force fields and elastic properties of graphene. *Journal of Applied Physics*, **2013**, 113, 134307	2.5	74
109	Optical detection of strain and doping inhomogeneities in single layer MoS2. *Applied Physics Letters* , **2016**, 108, 173102	3.4	74
108	Evaluating arbitrary strain configurations and doping in graphene with Raman spectroscopy. *2D Materials*, **2018**, 5, 015016	5.9	71

107	Graphene flakes under controlled biaxial deformation. *Scientific Reports*, **2015**, 5, 18219	4.9	63
106	Failure processes in embedded monolayer graphene under axial compression. *Scientific Reports*, **2014**, 4, 5271	4.9	58
105	Phonon and structural changes in deformed Bernal stacked bilayer graphene. *Nano Letters*, **2012**, 12, 687-93	11.5	58
104	Pressure screening in the interior of primary shells in double-wall carbon nanotubes. *Physical Review B*, **2005**, 71,	3.3	58
103	The effect of oxidation treatment on the properties of multi-walled carbon nanotube thin films. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2009**, 165, 135-138	3.1	56
102	Lattice Dynamical Properties of the Rare Earth Aluminum Garnets (RE3Al5O12). *Physica Status Solidi (B): Basic Research*, **2002**, 233, 134-150	1.3	50
101	Raman spectroscopy of graphene at high pressure: Effects of the substrate and the pressure transmitting media. *Physical Review B*, **2013**, 88,	3.3	46
100	Chemical Synthesis and Self-Assembly of Hollow Ni/Ni2P Hybrid Nanospheres. *Journal of Physical Chemistry C*, **2010**, 114, 7582-7585	3.8	44
99	Suspended monolayer graphene under true uniaxial deformation. *Nanoscale*, **2015**, 7, 13033-42	7.7	43
98	Mechanical Stability of Flexible Graphene-Based Displays. *ACS Applied Materials & Interfaces*, **2016**, 8, 22605-14	9.5	40
97	Experimentally derived axial stress□train relations for two-dimensional materials such as monolayer graphene. *Carbon*, **2015**, 81, 322-328	10.4	35
96	Infrared spectroscopy and lattice dynamical calculations of Gd3Al5O12, Tb3Al5O12 and Lu3Al5O12 single crystals. *Journal of Physics and Chemistry of Solids*, **2003**, 64, 599-605	3.9	35
95	Vibrational properties of the rare earth aluminum garnets. *Journal of Applied Physics*, **2003**, 94, 6491-6498	2.5	35
94	Water-Soluble Carbon Nanotubes by Redox Radical Polymerization. *Macromolecular Rapid Communications*, **2007**, 28, 1553-1558	4.8	34
93	Thermal properties enhancement of epoxy resins by incorporating polybenzimidazole nanofibers filled with graphene and carbon nanotubes as reinforcing material. *Polymer Testing*, **2020**, 82, 106317	4.5	33
92	Wrinkled Few-Layer Graphene as Highly Efficient Load Bearer. *ACS Applied Materials & Interfaces*, **2017**, 9, 26593-26601	9.5	32
91	High-pressure Raman study and lattice dynamical calculations for SrWO4. *Journal of Physics Condensed Matter*, **2002**, 14, 12641-12650	1.8	32
90	Graphene production by dissociation of camphor molecules on nickel substrate. *Thin Solid Films*, **2013**, 527, 31-37	2.2	30

89	Novel hybrid materials consisting of regioregular poly(3-octylthiophene)s covalently attached to single-wall carbon nanotubes. *Chemistry - A European Journal*, **2008**, 14, 8715-24	4.8	30
88	Strained hexagonal boron nitride: Phonon shift and Grüneisen parameter. *Physical Review B*, **2018**, 97,	3.3	27
87	Open structured in comparison with dense multi-walled carbon nanotube buckypapers and their composites. *Composites Science and Technology*, **2013**, 77, 52-59	8.6	26
86	Vibrational properties of (Gd1−xYx)3Ga5O12 solid solutions. *Journal of Applied Physics*, **2010**, 107, 113504	2.5	26
85	Covalently functionalized carbon nanotubes as macroinitiators for radical polymerization. *Physica Status Solidi (B): Basic Research*, **2007**, 244, 4046-4050	1.3	26
84	Buckypaper as Pt-free cathode electrode in photoactivated fuel cells. *Electrochimica Acta*, **2012**, 80, 399-404	6.7	25
83	Double-wall carbon nanotubes under pressure: Probing the response of individual tubes and their intratube correlation. *Physical Review B*, **2005**, 72,	3.3	25
82	μ+ SR study of carbon-doped MgB 2 superconductors. *Europhysics Letters*, **2003**, 61, 254-260	1.6	23
81	High pressure Raman study of BaMoO4. *Physica Status Solidi (B): Basic Research*, **2004**, 241, 3155-3160	1.3	23
80	Efficient exfoliation of graphene sheets in binary solvents. *Materials Letters*, **2013**, 94, 47-50	3.3	22
79	Negative Thermal Expansion in the Mixed Valence Ytterbium Fulleride, Yb2.75C60. *Chemistry of Materials*, **2005**, 17, 4474-4478	9.6	22
78	A novel mild method for surface treatment of carbon fibres in epoxy-matrix composites. *Composites Science and Technology*, **2018**, 157, 178-184	8.6	21
77	Polymer and Hybrid Electron Accepting Materials Based on a Semiconducting Perfluorophenylquinoline. *Macromolecules*, **2010**, 43, 4827-4828	5.5	21
76	On the nature of the laser irradiation induced reversible softening of phonon modes in C60 single crystals. *Chemical Physics Letters*, **1998**, 290, 125-130	2.5	21
75	High pressure Raman study of Y3Al5O12. *Physica Status Solidi (B): Basic Research*, **2004**, 241, 3149-3154	1.3	21
74	Epoxidized multi-walled carbon nanotube buckypapers: A scaffold for polymer nanocomposites with enhanced mechanical properties. *Chemical Engineering Journal*, **2015**, 281, 793-803	14.7	20
73	Carbon nanotubes decorated with terpyridine-ruthenium complexes. *Journal of Polymer Science Part A*, **2009**, 47, 2551-2559	2.5	20
72	Compressive response and buckling of graphene nanoribbons. *Scientific Reports*, **2018**, 8, 9593	4.9	20

71	Structural Properties of Chemically Functionalized Carbon Nanotube Thin Films. *Materials*, **2013**, 6, 2360-2371	3.5	19
70	Raman spectroscopic study of carbon substitution in MgB2. *Journal of Physics and Chemistry of Solids*, **2004**, 65, 73-77	3.9	19
69	Uniaxial compression of suspended single and multilayer graphenes. *2D Materials*, **2016**, 3, 025033	5.9	18
68	Electronic Properties of Semiconducting Polymer-Functionalized Single Wall Carbon Nanotubes. *Macromolecules*, **2013**, 46, 2590-2598	5.5	18
67	Single-walled carbon nanotubes decorated with a pyrene-fluorenevinylene conjugate. *Nanotechnology*, **2009**, 20, 135606	3.4	18
66	N-Octyl-O-sulfate chitosan stabilises single wall carbon nanotubes in aqueous media and bestows biocompatibility. *Nanoscale*, **2009**, 1, 366-73	7.7	18
65	Colloidal stability of carbon nanotubes in an aqueous dispersion of phospholipid. *International Journal of Nanomedicine*, **2007**, 2, 761-6	7.3	18
64	Raman study of metallic carbon nanotubes at elevated pressure. *Diamond and Related Materials*, **2006**, 15, 1075-1079	3.5	17
63	Embedded trilayer graphene flakes under tensile and compressive loading. *2D Materials*, **2015**, 2, 024009	3.9	16
62	Long-lived discrete breathers in free-standing graphene. *Chaos, Solitons and Fractals*, **2016**, 87, 262-267	9.3	16
61	High pressure Raman scattering of silicon nanowires. *Nanotechnology*, **2011**, 22, 195707	3.4	16
60	Diameter-selective solubilization of carbon nanotubes by lipid micelles. *Journal of Nanoscience and Nanotechnology*, **2008**, 8, 420-3	1.3	15
59	Structural Defects Modulate Electronic and Nanomechanical Properties of 2D Materials. *ACS Nano*, **2021**, 15, 2520-2531	16.7	15
58	Lattice collapse in mixed-valence samarium fulleride Sm(2.75)C(60) at high pressure. *Dalton Transactions*, **2004**, 3144-6	4.3	14
57	Infrared lattice spectra of Tm3Al5O12and Yb3Al5O12single crystals. *Journal of Physics Condensed Matter*, **2002**, 14, 915-923	1.8	14
56	Compression behavior of simply-supported and fully embedded monolayer graphene: Theory and experiment. *Extreme Mechanics Letters*, **2016**, 8, 191-200	3.9	13
55	Phononic band gap engineering in graphene. *Journal of Applied Physics*, **2012**, 112, 094307	2.5	12
54	Temperature and Composition Dependence of Exciton Peak Positions and Band Gap Energies of Zn1□Mgx(□0.19Se Epitaxial Films. *Physica Status Solidi (B): Basic Research*, **1997**, 204, 685-699	1.3	12

53	Stress and charge transfer in uniaxially strained CVD graphene. *Physica Status Solidi (B): Basic Research*, **2016**, 253, 2355-2361	1.3	11
52	Raman spectroscopy of single wall carbon nanotubes functionalized with terpyridine–ruthenium complexes. *Physica Status Solidi (B): Basic Research*, **2009**, 246, 2721-2723	1.3	11
51	Pressure-induced charge transfer phase transition in crystalline C60*C10H12Se4*2(CS2) molecular complex studied by Raman spectroscopy. *Chemical Physics Letters*, **1997**, 281, 360-365	2.5	11
50	Phonons in Rare-Earth Aluminum Garnets and Their Relation to Lattice Vibration of AlO4. *Physica Status Solidi (B): Basic Research*, **1999**, 215, 193-198	1.3	11
49	Strain Engineering in Highly Wrinkled CVD Graphene/Epoxy Systems. *ACS Applied Materials & Interfaces*, **2018**, 10, 43192-43202	9.5	11
48	Controllable, eco-friendly, synthesis of highly crystalline 2D-MoS 2 and clarification of the role of growth-induced strain. *2D Materials*, **2018**, 5, 035035	5.9	11
47	One pot synthesis and characterization of ultra fine CeO2 and Cu/CeO2 nanoparticles. Application for low temperature CO oxidation. *Journal of Nanoscience and Nanotechnology*, **2011**, 11, 8593-8	1.3	10
46	Effect of high hydrostatic pressure on the phonon modes of Tb3Al5O12 and Dy3Al5O12 single crystals. *Physica B: Condensed Matter*, **1999**, 265, 277-281	2.8	10
45	Exotic carbon nanostructures obtained through controllable defect engineering. *RSC Advances*, **2015**, 5, 39930-39937	3.7	9
44	High-pressure effects on the Raman spectrum and the force constants of the rare-earth aluminium garnets (RE3Al5O12). *Journal of Physics Condensed Matter*, **2002**, 14, 3875-3890	1.8	9
43	Phase separation in carbon-doped MgB2 studied by means of alternating current susceptibility measurements. *Journal of Physics Condensed Matter*, **2002**, 14, 7363-7369	1.8	9
42	High Pressure Raman Study of Lu3Al5O12. *Physica Status Solidi (B): Basic Research*, **1999**, 211, 301-307	1.3	9
41	Comparative Raman Study of the 1D and 2D Polymeric Phases of C60 under Pressure. *Physica Status Solidi (B): Basic Research*, **1999**, 215, 443-448	1.3	9
40	Biaxial strain engineering of CVD and exfoliated single- and bi-layer MoS2 crystals. *2D Materials*, **2021**, 8, 015023	5.9	9
39	Elastic Properties of Crystalline–Amorphous Core–Shell Silicon Nanowires. *Journal of Physical Chemistry C*, **2013**, 117, 4219-4226	3.8	8
38	Mechanical, Electrical, and Thermal Properties of Carbon Nanotube Buckypapers/Epoxy Nanocomposites Produced by Oxidized and Epoxidized Nanotubes. *Materials*, **2020**, 13,	3.5	7
37	Antiferromagnetic ordering in the expanded (NH3)Rb3C60 fulleride. *Physica B: Condensed Matter*, **2003**, 326, 572-576	2.8	7
36	Raman modes of the two-dimensional tetragonal polymeric phase of C60 under high pressure. *Journal of Chemical Physics*, **2001**, 114, 9099-9104	3.9	7

35	Atomistic potential for graphene and other sp carbon systems. *Physical Chemistry Chemical Physics*, **2017**, 19, 30925-30932	3.6	6
34	Transforming graphene nanoribbons into nanotubes by use of point defects. *Journal of Physics Condensed Matter*, **2014**, 26, 125301	1.8	6
33	Second-order Raman study of double-wall carbon nanotubes under high pressure. *Physica Status Solidi (B): Basic Research*, **2007**, 244, 116-120	1.3	6
32	High pressure Raman study of the second-order vibrational modes of single- and double-walled carbon nanotubes. *Physica Status Solidi (B): Basic Research*, **2007**, 244, 4069-4073	1.3	6
31	Raman study of polycrystalline PbWO4 under high pressure. *High Pressure Research*, **2006**, 26, 421-425	1.6	6
30	Phosphorous Diffusion in N2+-Implanted Germanium during Flash Lamp Annealing: Influence of Nitrogen on Ge Substrate Damage and Capping Layer Engineering. *ECS Journal of Solid State Science and Technology*, **2017**, 6, P418-P428	2	5
29	Carbon nanotube□luorenevinylene hybrids: Synthesis and photophysical properties. *Chemical Physics Letters*, **2009**, 483, 241-246	2.5	5
28	Magnetic ordering in the ammoniated alkali fullerides (NH3)K3□RbxC60(x= 2, 3). *Journal of Physics Condensed Matter*, **2007**, 19, 386235	1.8	5
27	11B NMR Study of Pure and Lightly Carbon-Doped MgB2 Superconductors. *Journal of Superconductivity and Novel Magnetism*, **2005**, 18, 521-528		5
26	Effect of high hydrostatic pressure on the intramolecular modes of (C59N)2. *Physical Review B*, **1999**, 59, 3180-3183	3.3	5
25	High pressure effects on the Raman spectrum of CsC60 polymer. *Physica B: Condensed Matter*, **1999** , 265, 234-238	2.8	5
24	Thermomechanical Response of Supported Hexagonal Boron Nitride Sheets of Various Thicknesses. *Journal of Physical Chemistry C*, **2020**, 124, 12134-12143	3.8	4
23	High-pressure Raman study of the Sm2.75C60 fulleride. *High Pressure Research*, **2011**, 31, 13-17	1.6	3
22	Evidence of Electron□Phonon Interaction in Al-Substituted Mg1□ Al x B2. *Journal of Superconductivity and Novel Magnetism*, **2004**, 17, 199-203		3
21	□R studies of superconducting MgB1.96C0.04. *Physica B: Condensed Matter*, **2003**, 326, 346-349	2.8	3
20	Pressure evolution of the phonon modes and force constants of Tb3Al5O12 and Lu3Al5O12. *Physica Status Solidi (B): Basic Research*, **2003**, 235, 348-353	1.3	3
19	Phonon Modes in Yb3Al5O12: Pressure Dependence and Model Calculations. *Physica Status Solidi (B): Basic Research*, **2001**, 223, 343-347	1.3	3
18	Doping-Induced Stacking Transition in Trilayer Graphene: Implications for Layer Stacking Manipulation. *ACS Applied Nano Materials*, **2020**, 3, 11861-11868	5.6	3

17	An Evaluation of Graphene as a Multi-Functional Heating Element for Biomedical Applications. *Journal of Biomedical Nanotechnology*, **2018**, 14, 86-97	4	3
16	Raman spectroscopic study of the rare-earth fullerides Eu6-xSrxC60. *Nanoscale*, **2011**, 3, 2490-3	7.7	2
15	High-pressure Raman study of stacked-cup carbon nanofibers. *High Pressure Research*, **2011**, 31, 131-135	1.6	2
14	Inelastic neutron scattering study of the intermolecular vibrational modes of Ba4C60. *Chemical Physics Letters*, **2003**, 377, 125-130	2.5	2
13	The pressure response of Raman active phonon modes of Tm3Al5O12. *High Pressure Research*, **2000**, 18, 117-123	1.6	2
12	Charge Transfer in C60*TMTSF*2(CS2) Complex at High Pressure: A Raman Spectroscopic Study.. *Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu*, **1998**, 7, 733-735	0	2
11	Softening of phonon modes in C60 crystals induced by laser irradiation: Thermal effects. *Journal of Experimental and Theoretical Physics*, **1998**, 87, 967-972	1	1
10	High pressure study of the 2D polymeric phase of C60 by means of raman spectroscopy. *High Pressure Research*, **2000**, 18, 145-151	1.6	1
9	The Role of the Intradimer C□ Bridge on the Stability of (C59N)2: A High Pressure Raman Study. *Physica Status Solidi (B): Basic Research*, **1999**, 211, 435-441	1.3	1
8	Efficient Mechanical Stress Transfer in Multilayer Graphene with a Ladder-like Architecture. *ACS Applied Materials & Interfaces*, **2021**, 13, 4473-4484	9.5	1
7	Lattice dynamics and thermodynamic properties of Y3Al5O12 (YAG). *Journal of Physics and Chemistry of Solids*, **2021**, 162, 110512	3.9	0
6	Time-Resolved Raman Scattering in Exfoliated and CVD Graphene Crystals. *Journal of Physical Chemistry C*, **2021**, 125, 21003-21010	3.8	0
5	Carbon Nanotube-Filled Polymer Composites **2013**, 219-247		
4	Chapter 9:Raman Spectroscopy of Carbon Nanotube□Polymer Hybrid Materials. *RSC Nanoscience and Nanotechnology*, **2013**, 253-269		
3	The effect of anisotropic intermolecular interactions on the pressure response of polymeric fullerenes. *Physica Status Solidi (B): Basic Research*, **2003**, 235, 369-373	1.3	
2	Characterization of Graphene Flexible Materials and Displays **2018**, 207-230		
1	Practical Considerations on Applications of the Popularity of Games: The Case of Location-Based Games and Disaster. *Lecture Notes in Computer Science*, **2022**, 213-233	0.9	