

# C Ranganathaiah

## List of Publications by Year in descending order

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101  
papers

1,769  
citations

304602

22  
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330025

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102  
docs citations

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times ranked

1451  
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparative study of 150 keV Ar <sup>+</sup> and O <sup>+</sup> ion implantation induced structural modification on electrical conductivity in Bakelite polymer. <i>Journal of Physics and Chemistry of Solids</i> , 2018, 113, 74-81.	1.9	7
2	Correlation of free space length and surface energy of epoxy nanocomposites to surface tracking. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2018, 25, 2129-2138.	1.8	16
3	Influence of oxygen ion implantation on the free volume parameters and electrical conductivity of a polymer based bakelite RPC detector material. <i>Journal of Applied Polymer Science</i> , 2017, 134, .	1.3	6
4	Effect of argon ion implantation on the microstructure and electrical conductivity of a polymer based bakelite RPC detector material. <i>AIP Conference Proceedings</i> , 2017, , .	0.3	0
5	Effect of electron beam irradiation on the microstructure, optical and electrical properties of glass resistive plate chamber detector material. <i>Applied Physics A: Materials Science and Processing</i> , 2017, 123, 1.	1.1	2
6	Oxygen ion implantation induced structural modifications and electrical conductivity in glass RPC detector materials: A positron lifetime study. <i>Journal of Non-Crystalline Solids</i> , 2017, 471, 151-159.	1.5	5
7	Moisture and filler induced effects on the dynamic mechanical properties of glass fiber reinforced epoxy hybrid composites. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2016, 23, 3631-3640.	1.8	7
8	Investigations of copper sulfide diffusion into paper insulation of transformers. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2016, 23, 2421-2429.	1.8	8
9	Oxygen ion implantation induced microstructural changes and electrical conductivity in Bakelite RPC detector material. <i>AIP Conference Proceedings</i> , 2016, , .	0.3	0
10	Electron beam induced microstructural changes and electrical conductivity in Bakelite polymer RPC detector material: A positron lifetime study. <i>Journal of Physics: Conference Series</i> , 2015, 618, 012032.	0.3	2
11	Electron Beam Induced Microstructural Changes and Electrical Conductivity in Bakelite RPC Detector Material. <i>IEEE Transactions on Nuclear Science</i> , 2015, 62, 306-313.	1.2	14
12	Tuning of band gap in TiO <sub>2</sub> and ZnO nanoparticles by selective doping for photocatalytic applications. <i>Materials Research Innovations</i> , 2015, 19, 73-80.	1.0	19
13	Characterization of interfaces in Binary and Ternary Polymer Blends by Positron Lifetime Spectroscopy. <i>Journal of Physics: Conference Series</i> , 2015, 618, 012022.	0.3	2
14	Influence of nanopores on molecular polarizability and polarization currents in epoxy nanocomposites. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2014, 21, 1166-1174.	1.8	9
15	Variation of lexan polycarbonate properties by electron beam. <i>Journal of Applied Polymer Science</i> , 2013, 127, 2010-2018.	1.3	7
16	A new insight into interface widths in binary polymer blends based on ortho-positronium lifetime studies. <i>Journal of Applied Polymer Science</i> , 2013, 127, 190-199.	1.3	5
17	Investigation of organo-modified montmorillonite loading effect on the abrasion resistance of hybrid composites. <i>Materials &amp; Design</i> , 2013, 47, 750-758.	5.1	23
18	Positron annihilation lifetime study of interfaces in ternary polymer blends. <i>Journal of Physics: Conference Series</i> , 2013, 443, 012047.	0.3	0

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19	Influence of polar groups in binary polymer blends on positronium formation. <i>Physical Review E</i> , 2013, 87, 052602.	0.8	11
20	Interface profile studies in immiscible and partially miscible binary polymer blends from free volume measurement. <i>Journal of Physics: Conference Series</i> , 2013, 443, 012048.	0.3	3
21	Experimental determination of interface widths in binary polymer blends from free volume measurements. <i>Polymer</i> , 2012, 53, 4539-4546.	1.8	17
22	Characterization of interfaces in Poly (styrene-co-acrylonitrile) (SAN) based ternary polymer blends: A new approach from positron lifetime spectroscopy. <i>Polymer</i> , 2012, 53, 842-850.	1.8	13
23	Chromium–manganese iron alloy system design cast in metal and sand moulds for erosion resistance: a positron lifetime study. <i>International Journal of Advanced Manufacturing Technology</i> , 2011, 52, 45-52.	1.5	3
24	Characterization of ACS modified epoxy resin composites with fly ash and cenospheres as fillers: Mechanical and microstructural properties. <i>Polymer Composites</i> , 2011, 32, 139-146.	2.3	30
25	New hyperbranched polymers for membranes of high-temperature polymer electrolyte membrane fuel cells: Determination of the crystal structure and free-volume size. <i>Journal of Applied Polymer Science</i> , 2011, 121, 923-929.	1.3	12
26	Characterization of nanosilica-filled epoxy composites for electrical and insulation applications. <i>Journal of Applied Polymer Science</i> , 2011, 121, 2752-2760.	1.3	37
27	Free Volume Size Distribution in Some Natural Polymers. , 2011, , .		2
28	Microwave assisted improvement in physico-mechanical properties of poly(vinyl Tj ETQq0 0 0 rgBT /Overlock 10 Tf_50 382 Td (alcohol)/	1.2	12
29	Effect of zeolite particulate filler on the properties of polyurethane composites. <i>Journal of Polymer Research</i> , 2010, 17, 135-142.	1.2	14
30	Positron Lifetime Spectroscopy and Differential Scanning Calorimetric study of polystyrene-based composites with fly ash, cenospheres, and calcium aluminosilicate as fillers. <i>Journal of Applied Polymer Science</i> , 2010, 116, 3087-3094.	1.3	6
31	Chemical and photochemical degradation of human hair: A free-volume microprobe study. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2010, 101, 286-294.	1.7	26
32	Photocatalytic treatment of organic pollutants in textile effluent using hydrothermally prepared photocatalytic composite. <i>Materials Research Innovations</i> , 2010, 14, 80-86.	1.0	9
33	New method of determining miscibility in binary polymer blends through hydrodynamic interaction: The free volume approach. <i>Journal of Applied Polymer Science</i> , 2009, 111, 577-588.	1.3	17
34	Spoilation of fluoroperm rigid gas permeable contact lens by sodium chloride: A positron annihilation study. <i>Journal of Applied Polymer Science</i> , 2009, 112, 372-380.	1.3	0
35	A new method of stabilization and characterization of the interface in binary polymer blends by irradiation: A positron annihilation study. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2009, 47, 619-632.	2.4	22
36	The effects of manganese content and mould size on abrasion and slurry erosion behaviour of chromium–manganese iron systems investigated by positron lifetime spectroscopy. <i>Wear</i> , 2009, 267, 1558-1565.	1.5	3

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37	A free-volume study on the phase modifications brought out by e-beam and microwave irradiations in PP/NBR and PVC/SAN blends. <i>Polymer Degradation and Stability</i> , 2009, 94, 397-403.	2.7	22
38	Diffusion of permanent liquid dye molecules in human hair investigated by positron lifetime spectroscopy. <i>Colloids and Surfaces B: Biointerfaces</i> , 2009, 69, 129-134.	2.5	18
39	Mechanical Properties of Modified Epoxies as Related to Free Volume Parameters. <i>Journal of Adhesion</i> , 2009, 85, 200-215.	1.8	13
40	Influence of spoolation in poly(2-hydroxy ethyl methacrylate) soft contact lens on its free volume and optical transparency. <i>Journal of Materials Science: Materials in Medicine</i> , 2008, 19, 1355-1361.	1.7	4
41	Effect of hygrothermal aging on the diffusion of seawater in epoxy/glass composites studied by positron lifetime spectroscopy. <i>Polymer Composites</i> , 2008, 29, 149-155.	2.3	4
42	Interfacial modifications in PS/PMMA and PVC/EVA blends by e-beam and microwave irradiation: A free volume study. <i>Polymer Engineering and Science</i> , 2008, 48, 1495-1503.	1.5	12
43	Effect of the fiber orientation on the sorption kinetics of seawater in an epoxy/glass composite: A free-volume microprobe study. <i>Journal of Applied Polymer Science</i> , 2008, 109, 1302-1309.	1.3	4
44	Correlation Between Physico-Mechanical and Free Volume Properties of Gaur-Gum Filled Polyurethane/Polymethyl Methacrylate Biodegradable Composites. <i>Journal of Composite Materials</i> , 2008, 42, 1787-1800.	1.2	9
45	Glucose and water diffusion kinetics study in a fluorosilicone acrylate contact lens material by positron lifetime spectroscopy. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2007, 18, 641-654.	1.9	4
46	Physico-mechanical and free volume behaviour of guar gum filled polyurethane/polyacrylonitrile biodegradable composites. <i>European Polymer Journal</i> , 2007, 43, 1580-1587.	2.6	15
47	The characterization of PP/NBR blends by positron annihilation lifetime spectroscopy (PALS): The effect of composition and dynamic vulcanization. <i>Polymer Testing</i> , 2007, 26, 88-94.	2.3	25
48	Hydrothermal preparation and characterization of TiO <sub>2</sub> :AC composites. <i>Materials Letters</i> , 2007, 61, 4828-4831.	1.3	20
49	Effect of barium chloride doping on PVA microstructure: positron annihilation study. <i>Applied Physics A: Materials Science and Processing</i> , 2007, 87, 797-805.	1.1	124
50	Photocatalytic degradation of indigo carmine dye using TiO <sub>2</sub> impregnated activated carbon. <i>Bulletin of Materials Science</i> , 2007, 30, 37-41.	0.8	129
51	Free volume microprobe studies on poly(methyl methacrylate)/poly(vinyl chloride) and poly(vinyl) Tj ETQq1 1 0.784314 rgBT /Overloc	1.5	23
52	Miscibility and phase separation in SAN/PMMA blends investigated by positron lifetime measurements. <i>European Polymer Journal</i> , 2006, 42, 2655-2666.	2.6	54
53	Gas transport through nano and micro composites of natural rubber (NR) and their blends with carboxylated styrene butadiene rubber (XSBR) latex membranes. <i>Polymer</i> , 2006, 47, 858-870.	1.8	100
54	Differential scanning calorimetric and free volume study of reactive compatibilization by EPM-g-MA of poly(trimethylene terephthalate)/EPDM blends. <i>Journal of Applied Polymer Science</i> , 2006, 100, 740-747.	1.3	17

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55	Diffusion of seawater in unsaturated polyester resin and its glass fiber reinforced composites in the presence of titanium dioxide as UV absorber. <i>Journal of Applied Polymer Science</i> , 2006, 102, 2784-2794.	1.3	7
56	Influence of curing agent and compatibilizer on the physico-mechanical properties of polypropylene/nitrile butadiene rubber blends investigated by positron annihilation lifetime technique. <i>Journal of Applied Polymer Science</i> , 2006, 102, 4672-4681.	1.3	42
57	Free Volume Micro Probe Study of Silver Ions Implanted in Polycarbonate. <i>High Performance Polymers</i> , 2006, 18, 933-947.	0.8	3
58	Positron annihilation and differential scanning calorimetric study of poly(trimethylene Terephthalate)/Epoxy blends. <i>Journal of Applied Polymer Science</i> , 2006, 102, 622-633.	1.8	83
59	Free volume study on calcification process in an intraocular lens after cataract surgery. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2005, 75B, 221-227.	1.6	4
60	Influence of free volume on the mechanical properties of Epoxy/poly (methylmethacrylate) blends. <i>Journal of Materials Science</i> , 2005, 40, 6523-6527.	1.7	24
61	Compatibilizer-induced microstructural changes in poly(trimethylene terephthalate)/EPDM blends studied by the positron annihilation lifetime technique and differential scanning calorimetry. <i>Polymer International</i> , 2005, 54, 1288-1295.	1.6	24
62	Free volume and the physico-mechanical behaviour of polyurethane/polyacrylonitrile interpenetrating polymer networks: positron annihilation results. <i>Polymer International</i> , 2005, 54, 1401-1407.	1.6	13
63	Structural relaxation in polyethylene in the presence of silver oxide investigated by positron-lifetime spectroscopy. <i>Applied Physics A: Materials Science and Processing</i> , 2004, 78, 565-573.	1.1	3
64	Water diffusion in a soft contact lens polymer and its tolerance to UV radiation studied by positron lifetime technique. <i>Journal of Applied Polymer Science</i> , 2004, 92, 1355-1366.	1.3	19
65	Compatibilizing effect of EPM-g-MA in EPDM/poly(trimethylene terephthalate) incompatible blends. <i>Polymer</i> , 2004, 45, 4925-4937.	1.8	118
66	Carbon-ion-induced modifications of the diffusion kinetics in poly (ethylene terephthalate): a free volume study. <i>Radiation Measurements</i> , 2003, 36, 629-634.	0.7	8
67	A free volume microprobe study of water sorption in a contact lens polymer. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2002, 13, 1295-1311.	1.9	13
68	Water Sorption Studies in a RGP Contact Lens Polymer Paraperm by Positron Lifetime Technique. <i>Physica Status Solidi A</i> , 2002, 193, 257-270.	1.7	7
69	Thermally induced microstructural changes in cotton fibers: A free-volume study. <i>Journal of Applied Polymer Science</i> , 2002, 86, 3336-3345.	1.3	0
70	Structural relaxation in poly(ethylene terephthalate) studied by positron annihilation lifetime spectroscopy. <i>Polymer International</i> , 2002, 51, 765-771.	1.6	19
71	Positron lifetime study of diffusion kinetics in electron irradiated polycarbonate. <i>Polymer Degradation and Stability</i> , 2002, 76, 265-273.	2.7	21
72	A positron lifetime study of structural relaxation in UV irradiated poly (ethylene terephthalate). <i>Polymer Degradation and Stability</i> , 2002, 78, 449-458.	2.7	9

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73	Influence of ion-irradiation on the free volume controlled diffusion process in polycarbonate—a positron lifetime study. <i>Polymer</i> , 2002, 43, 2819-2826.	1.8	24
74	Influence of vinylidene fluoride on the physical ageing of poly(chlorotrifluoroethylene). <i>European Polymer Journal</i> , 2002, 38, 2285-2294.	2.6	3
75	Free-volume microprobe study of iodine diffusion in polymers. <i>Polymer International</i> , 2001, 50, 237-248.	1.6	53
76	Degradation of acrylonitrile-butadiene-styrene and polycarbonate by UV irradiation. <i>Polymer Degradation and Stability</i> , 2000, 69, 347-354.	2.7	73
77	The influence of vinylidene fluoride on the free volume of poly(chlorotrifluoroethylene). <i>Polymer</i> , 1999, 40, 5961-5965.	1.8	4
78	A positron annihilation study of the tensile behaviour of bivoltine silk fibers. <i>European Polymer Journal</i> , 1999, 35, 1107-1113.	2.6	13
79	Influence of strain on the thermal behaviour of poly(chlorotrifluoroethylene). <i>Polymer International</i> , 1999, 48, 33-40.	1.6	1
80	UV degradation of bivoltine silk fiber: a positron annihilation study. <i>European Polymer Journal</i> , 1998, 34, 1423-1427.	2.6	14
81	Positron annihilation study of iodine sorption in acrylonitrile-butadiene-styrene. <i>Journal of Applied Polymer Science</i> , 1998, 68, 2077-2085.	1.3	8
82	Effect of stress on the free volume content of poly(chlorotrifluoroethylene). <i>Polymer</i> , 1998, 39, 2987-2990.	1.8	7
83	Structural modifications in bivoltine silk fiber under thermal treatment. <i>Journal of Applied Polymer Science</i> , 1997, 63, 395-400.	1.3	8
84	Physical ageing of poly(chlorotrifluoroethylene): A positron annihilation study. <i>European Polymer Journal</i> , 1997, 33, 1707-1711.	2.6	22
85	Transport of iodine in poly(ethyleneterephthalate). <i>European Polymer Journal</i> , 1997, 33, 1753-1758.	2.6	10
86	Free volume study of poly(chlorotrifluoroethylene) using positron annihilation spectroscopy as a microanalytical tool. <i>Polymer</i> , 1996, 37, 3233-3239.	1.8	24
87	Correlation between Electron Density and Momentum in Free Volume Holes of Some Semicrystalline Polymers. <i>Physica Status Solidi A</i> , 1996, 158, 3-8.	1.7	8
88	Microstructure of polycarbonate seen by positrons as an in-situ probe. <i>Applied Physics A: Materials Science and Processing</i> , 1995, 60, 481-486.	1.1	21
89	FREE VOLUME RELATED STRUCTURAL CHANGES IN THE EPOXY POLYMER TGDDM. <i>International Journal of Modern Physics B</i> , 1994, 08, 1699-1711.	1.0	4
90	Positron lifetime study of the free-volume properties in the polymer polyacrylonitrile. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1993, 174, 428-432.	0.9	8

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91	Thermally induced microstructural changes in undoped and doped polyacrylonitrile: A positron-annihilation study. <i>Physical Review B</i> , 1992, 46, 11471-11478.	1.1	16
92	Radiation Induced Changes in the Polymer PPO. A Positron Annihilation Study. <i>Physica Status Solidi A</i> , 1991, 124, 441-446.	1.7	2
93	Positron Lifetime Study on Microstructural Changes in Iodine-Doped Polymer PPO. <i>Physica Status Solidi A</i> , 1991, 125, 509-516.	1.7	3
94	Semiempirical Formulas for the K-Shell Photoionization Cross Sections for Gamma Rays in the 150- to 1300-keV Energy Range. <i>Nuclear Science and Engineering</i> , 1985, 90, 99-102.	0.5	1
95	Photoeffect cross sections of some rare-earth elements at 145.4 keV. <i>Physical Review A</i> , 1985, 32, 959-962.	1.0	5
96	Incoherent-scattering cross sections of $^{60}\text{Co}$ rays in elements. <i>Physical Review A</i> , 1984, 29, 387-390.	1.0	10
97	A simple method of determining the photoeffect cross sections of elements for gamma rays. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1984, 5, 472-475.	0.6	5
98	Direct measurement of K-shell photoionization cross sections by means of the coincidence method. <i>Physica B: Physics of Condensed Matter &amp; C: Atomic, Molecular and Plasma Physics, Optics</i> , 1983, 115, 411-414.	0.9	0
99	Incoherent-scattering cross sections in low- and medium-Z elements derived from the measured total attenuation cross sections in compounds. <i>Physical Review A</i> , 1981, 23, 2365-2373.	1.0	25
100	Atomic K-shell photoionization cross sections for $^{46}\text{Sc}$ and $^{60}\text{Co}$ rays. <i>Physical Review A</i> , 1981, 23, 1841-1847.	1.0	5
101	K-shell photoionisation cross sections for 514, 661.6, 765.8 and 1115.5 keV gamma rays. <i>Journal of Physics B: Atomic and Molecular Physics</i> , 1979, 12, 1965-1971.	1.6	9