

# Pankaj R Sagdeo

## List of Publications by Year in descending order

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124  
papers

2,716  
citations

147566  
31  
h-index

243296  
44  
g-index

126  
all docs

126  
docs citations

126  
times ranked

1974  
citing authors

#	ARTICLE	IF	CITATIONS
1	TiO <sub>2</sub> @Co <sub>3</sub> O <sub>4</sub> Core-Shell Nanorods: Bifunctional Role in Better Energy Storage and Electrochromism. ACS Applied Energy Materials, 2018, 1, 790-798.	2.5	97
2	Electronic and optical properties of BaTiO <sub>3</sub> across tetragonal to cubic phase transition: An experimental and theoretical investigation. Journal of Applied Physics, 2017, 122, .	1.1	95
3	Diffuse reflectance spectroscopy: An effective tool to probe the defect states in wide band gap semiconducting materials. Materials Science in Semiconductor Processing, 2018, 86, 151-156.	1.9	88
4	Ferroelectric relaxor behavior in hafnium doped barium-titanate ceramic. Solid State Communications, 2006, 138, 331-336.	0.9	85
5	Polythiophene@PCBM-Based All-Organic Electrochromic Device: Fast and Flexible. ACS Applied Electronic Materials, 2019, 1, 58-63.	2.0	81
6	Mesoporous Nickel Oxide (NiO) Nanopetals for Ultrasensitive Glucose Sensing. Nanoscale Research Letters, 2018, 13, 16.	3.1	73
7	Polythiophene -viologen bilayer for electro-trichromic device. Solar Energy Materials and Solar Cells, 2018, 188, 249-254.	3.0	64
8	Qualitative Evolution of Asymmetric Raman Line-Shape for NanoStructures. Silicon, 2014, 6, 117-121.	1.8	59
9	Prussian Blue-Viologen Inorganic-Organic Hybrid Blend for Improved Electrochromic Performance. ACS Applied Electronic Materials, 2019, 1, 892-899.	2.0	56
10	Fast electrochromic display: tetrathiafulvalene@graphene nanoflake as facilitating materials. Journal of Materials Chemistry C, 2017, 5, 9504-9512.	2.7	55
11	Strain control of Urbach energy in Cr-doped PrFeO <sub>3</sub> . Applied Physics A: Materials Science and Processing, 2017, 123, 1.	1.1	53
12	Structural, optical and electronic properties of RFeO <sub>3</sub> . Ceramics International, 2018, 44, 8344-8349.	2.3	51
13	Exploring the Interrelation between Urbach Energy and Dielectric Constant in Hf-Substituted BaTiO <sub>3</sub> . ACS Omega, 2021, 6, 32231-32238.	1.6	50
14	Quantifying the Short-Range Order in Amorphous Silicon by Raman Scattering. Analytical Chemistry, 2018, 90, 8123-8129.	3.2	47
15	Interfacial redox centers as origin of color switching in organic electrochromic device. Optical Materials, 2017, 66, 65-71.	1.7	45
16	Investigation of temperature-dependent optical properties of TiO <sub>2</sub> using diffuse reflectance spectroscopy. SN Applied Sciences, 2019, 1, 1.	1.5	45
17	Crossover from classical to relaxor ferroelectrics in BaTi <sub>1-x</sub> Hf <sub>x</sub> O <sub>3</sub> ceramics. Journal of Physics Condensed Matter, 2006, 18, 3455-3468.	0.7	43
18	Raman spectroscopy for study of interplay between phonon confinement and Fano effect in silicon nanowires. Journal of Raman Spectroscopy, 2016, 47, 283-288.	1.2	43

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19	Doping-Induced Combined Fano and Phonon Confinement Effect in La-Doped CeO <sub>2</sub> : Raman Spectroscopy Analysis. Journal of Physical Chemistry C, 2021, 125, 2648-2658.	1.5	43
20	Interplay between phonon confinement and Fano effect on Raman line shape for semiconductor nanostructures: Analytical study. Solid State Communications, 2016, 230, 25-29.	0.9	42
21	Strain induced coexistence of monoclinic and charge ordered phases in La <sub>1-x</sub> CaxMnO <sub>3</sub> . Physical Review B, 2006, 74, .	1.1	41
22	Spectral Anomaly in Raman Scattering from p-Type Silicon Nanowires. Journal of Physical Chemistry C, 2017, 121, 5372-5378.	1.5	39
23	Effect of iron doping on electrical, electronic and magnetic properties of La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> . Journal Physics D: Applied Physics, 2009, 42, 185410.	1.3	37
24	Large dielectric permittivity and possible correlation between magnetic and dielectric properties in bulk BaFeO <sub>3</sub> . Applied Physics Letters, 2014, 105, .	1.5	37
25	Disappearance of dielectric anomaly in spite of presence of structural phase transition in reduced BaTiO <sub>3</sub> : Effect of defect states within the bandgap. Journal of Applied Physics, 2018, 123, .	1.1	37
26	Organic Nanostructures on Inorganic Ones: An Efficient Electrochromic Display by Design. ACS Applied Nano Materials, 2018, 1, 3715-3723.	2.4	37
27	Amplification or cancellation of Fano resonance and quantum confinement induced asymmetries in Raman line-shapes. Physical Chemistry Chemical Physics, 2017, 19, 31788-31795.	1.3	36
28	Fe doped LaGaO <sub>3</sub> : good white light emitters. RSC Advances, 2016, 6, 100230-100238.	1.7	35
29	Determination of the optical gap bowing parameter for ternary Ni <sub>x</sub> Zn <sub>x</sub> O cubic rocksalt solid solutions. Dalton Transactions, 2015, 44, 14793-14798.	1.6	33
30	Effect of structural disorder on the electronic and phononic properties of Hf doped BaTiO <sub>3</sub> . Journal of Materials Science: Materials in Electronics, 2019, 30, 9498-9506.	1.1	33
31	Strain induced disordered phonon modes in Cr doped PrFeO <sub>3</sub> . Journal of Physics Condensed Matter, 2019, 31, 275602.	0.7	31
32	Observation of large dielectric permittivity and dielectric relaxation phenomenon in Mn-doped lanthanum gallate. RSC Advances, 2016, 6, 26621-26629.	1.7	30
33	Study of Porous Silicon Prepared Using Metal-Induced Etching (MIE): a Comparison with Laser-Induced Etching (LIE). Silicon, 2017, 9, 483-488.	1.8	30
34	Optical spectroscopy: An effective tool to probe the origin of dielectric loss in Cr doped PrFeO <sub>3</sub> . Ceramics International, 2019, 45, 8585-8592.	2.3	29
35	Significant field emission enhancement in ultrathin nano-thorn covered NiO nano-petals. Journal of Materials Chemistry C, 2017, 5, 9611-9618.	2.7	28
36	Cluster Glass Behavior in Orthorhombic SmFeO <sub>3</sub> Perovskite: Interplay between Spin Ordering and Lattice Dynamics. Chemistry of Materials, 2020, 32, 1250-1260.	3.2	27

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37	Powder X-ray diffraction and Rietveld analysis of $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$ ( $0 < x < 1$ ). Powder Diffraction, 2006, 21, 40-44.	0.4	26
38	Synthesis of Conducting Polypyrrole-Titanium Oxide Nanocomposite: Study of Structural, Optical and Electrical Properties. Journal of Inorganic and Organometallic Polymers and Materials, 2017, 27, 257-263.	1.9	26
39	Precursor concentration dependent hydrothermal NiO nanopetals: Tuning morphology for efficient applications. Superlattices and Microstructures, 2019, 125, 138-143.	1.4	26
40	Direct correlation between the band gap and dielectric loss in Hf doped BaTiO <sub>3</sub> . Journal of Materials Science: Materials in Electronics, 2019, 30, 8064-8070.	1.1	25
41	Temperature-dependent dielectric loss in BaTiO <sub>3</sub> : Competition between tunnelling probability and electron-phonon interaction. Materials Chemistry and Physics, 2021, 257, 123792.	2.0	25
42	Strain-induced first-order orbital flip transition and coexistence of charge-orbital ordered phases in $\text{Pr}_{1-x}\text{Mn}_x\text{O}_5$ . Physical Review B, 2008, 78, .	1.1	24
43	Effect of silicon resistivity on its porosification using metal induced chemical etching: morphology and photoluminescence studies. Materials Research Express, 2015, 2, 036501.	0.8	22
44	Role of metal nanoparticles on porosification of silicon by metal induced etching (MIE). Superlattices and Microstructures, 2016, 94, 101-107.	1.4	22
45	Ecofriendly gold nanoparticles $\hat{\epsilon}$ Lysozyme interaction: Thermodynamical perspectives. Journal of Photochemistry and Photobiology B: Biology, 2017, 174, 284-290.	1.7	22
46	Effect of self-doping on the charge state of Fe ions and crystal field transitions in YFeO <sub>3</sub> : Experiments and theory. Journal of Applied Physics, 2019, 125, .	1.1	22
47	Orbital facilitated charge transfer originated phonon mode in Cr $\hat{\epsilon}$ substituted $\text{PrFeO}_3$ : A brief Raman study. Journal of Raman Spectroscopy, 2020, 51, 1210-1218.	1.2	22
48	Possibility of using ultraviolet radiation for disinfecting the novel COVID-19. Photodiagnosis and Photodynamic Therapy, 2021, 34, 102234.	1.3	22
49	Live spectroscopy to observe electrochromism in viologen based solid state device. Solid State Communications, 2017, 261, 17-20.	0.9	21
50	Effect of electron irradiation on the optical properties of $\text{SrTiO}_3$ : An experimental and theoretical investigations. Materials Research Express, 2018, 5, 036210.	0.8	20
51	Unorthodox Approach to Realize the Correlation between the Dielectric Constant and Electronic Disorder in Cr-Doped $\text{PrFeO}_3$ . Journal of Physical Chemistry C, 2021, 125, 7378-7383.	1.5	20
52	Locating the normal to relaxor phase boundary in $\text{Ba}(\text{Ti}_{1-x}\text{Hfx})\text{O}_3$ ceramics. Materials Research Bulletin, 2008, 43, 1761-1769.	2.7	19
53	Comparative structural and optical studies on pellet and powder samples of BaTiO <sub>3</sub> near phase transition temperature. Ceramics International, 2020, 46, 3250-3256.	2.3	19
54	The magneto-elastic and optical properties of multiferroic $\text{GaFeO}_3$ . Journal of Magnetism and Magnetic Materials, 2020, 514, 167210.	1.0	19

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55	Enhancing Viologen's Electrochromism by Incorporating Thiophene: A Step Toward All-Organic Flexible Device. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1800680.	0.8	18
56	Charge neutral crystal field transitions: A measure of electron-phonon interaction. <i>Journal of Physics and Chemistry of Solids</i> , 2019, 135, 109102.	1.9	18
57	Room temperature magnetodielectric studies on Mn-doped $\text{LaGaO}_3$ . <i>Materials Research Express</i> , 2015, 2, 096105.	0.8	17
58	Observation of room temperature magnetodielectric effect in Mn-doped lanthanum gallate and study of its magnetic properties. <i>Journal of Materials Chemistry C</i> , 2016, 4, 10876-10886.	2.7	17
59	Possibility of spin-polarized transport in edge fluorinated armchair boron nitride nanoribbons. <i>RSC Advances</i> , 2016, 6, 11014-11022.	1.7	17
60	Possible evidence of delocalized excitons in Cr-doped $\text{PrFeO}_3$ : An experimental and theoretical realization. <i>Journal of Physics and Chemistry of Solids</i> , 2019, 130, 230-235.	1.9	17
61	Half-metallicity in armchair boron nitride nanoribbons: A first-principles study. <i>Solid State Communications</i> , 2015, 212, 19-24.	0.9	16
62	Extended x-ray absorption fine structure measurements on asymmetric bipolar pulse direct current magnetron sputtered $\text{Ta}_{2\text{O}_5}$ thin films. <i>Applied Optics</i> , 2015, 54, 6744.	2.1	16
63	Probing structural distortions in rare earth chromites using Indian synchrotron radiation source. <i>Indian Journal of Physics</i> , 2016, 90, 1347-1354.	0.9	16
64	Improved field emission from appropriately packed $\text{TiO}_2$ nanorods: Designing the miniaturization. <i>Superlattices and Microstructures</i> , 2019, 126, 1-7.	1.4	16
65	New route to estimate the Mott-Hubbard and charge transfer parameters: An optical and x-ray absorption studies. <i>Solid State Sciences</i> , 2021, 115, 106582.	1.5	16
66	Study of the relaxor behavior in $\text{BaTi}_{1-x}\text{Hf}_x\text{O}_3$ (0.20 $\leq x \leq$ 0.30) ceramics. <i>Solid State Sciences</i> , 2007, 9, 1054-1060.	1.5	15
67	Design and development of in-situ temperature dependent diffuse reflectance spectroscopy setup. <i>Journal of Instrumentation</i> , 2018, 13, T11003-T11003.	0.5	15
68	Origin of ferroelectricity in cubic phase of Hf substituted $\text{BaTiO}_3$ . <i>Journal of Physics Condensed Matter</i> , 2021, 33, 165403.	0.7	15
69	Investigating the correlation between the Urbach energy and asymmetry parameter of the Raman mode in semiconductors. <i>Physical Review B</i> , 2021, 104, .	1.1	15
70	Effect of substrate bias and oxygen partial pressure on properties of RF magnetron sputtered $\text{HfO}_2$ thin films. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2014, 32, 03D104.	0.6	14
71	Room-Temperature Magneto-dielectric Effect in $\text{LaGa}_{0.7}\text{Fe}_{0.3}\text{O}_{3+\delta}$ ; Origin and Impact of Excess Oxygen. <i>Inorganic Chemistry</i> , 2017, 56, 3809-3819.	1.9	14
72	Porous Silicon's fractal nature revisited. <i>Superlattices and Microstructures</i> , 2018, 120, 141-147.	1.4	14

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73	Understanding perceived color through gradual spectroscopic variations in electrochromism. Indian Journal of Physics, 2019, 93, 927-933.	0.9	14
74	Origin of natural and magnetic field induced polar order in orthorhombic PrFe <sub>1/2</sub> Cr <sub>1/2</sub> O <sub>3</sub> . Physical Review B, 2021, 104, .	1.1	14
75	Possible origin of ferromagnetism in antiferromagnetic orthorhombic-YFeO <sub>3</sub> : A first-principles study. Ceramics International, 2018, 44, 13507-13512.	2.3	13
76	Deconvoluting Diffuse Reflectance Spectra for Retrieving Nanostructuresâ€™ Size Details: An Easy and Efficient Approach. Journal of Physical Chemistry A, 2019, 123, 3607-3614.	1.1	13
77	Role of Laser Excitation Wavelength and Power in the Fano Resonance Scattering in RFe <sub>0.50</sub> Cr <sub>0.50</sub> O <sub>3</sub> (R = Sm, Er, and Eu): A Brief Raman Study. Journal of Physical Chemistry C, 2022, 126, 5403-5410.	1.5	13
78	Deposition and characterization of titaniaâ€“silica optical multilayers by asymmetric bipolar pulsed dc sputtering of oxide targets. Journal Physics D: Applied Physics, 2010, 43, 045302.	1.3	11
79	Effect of Hf doping on the structural, dielectric and optical properties of CaCu <sub>3</sub> Ti <sub>4</sub> O <sub>12</sub> ceramic. Journal of Materials Science: Materials in Electronics, 2016, 27, 5878-5885.	1.1	11
80	The contribution of grain boundary and defects to the resistivity in the ferromagnetic state of polycrystalline manganites. Journal of Magnetism and Magnetic Materials, 2006, 306, 60-68.	1.0	10
81	Design and development of a fully automated experimental setup for <i>in situ</i> temperature dependent magneto-dielectric measurements. Measurement Science and Technology, 2019, 30, 125901.	1.4	10
82	Structural, optical and dielectric properties of Bi substituted polycrystalline praseodymium chromate. Materials Chemistry and Physics, 2021, 262, 124313.	2.0	10
83	Effect of oxygen partial pressure on properties of asymmetric bipolar pulse dc magnetron sputtered TiO <sub>2</sub> thin films. Applied Optics, 2015, 54, 3817.	2.1	9
84	Importance of frequency dependent magnetoresistance measurements in analysing the intrinsicity of magnetodielectric effect: A case study. Journal of Applied Physics, 2017, 122, .	1.1	8
85	Tent-Shaped Surface Morphologies of Silicon: Texturization by Metal Induced Etching. Silicon, 2018, 10, 2801-2807.	1.8	8
86	Synthesis and characterization of RFeO <sub>3</sub> : experimental results and theoretical prediction. Advances in Materials and Processing Technologies, 2018, 4, 558-572.	0.8	8
87	Improved analytical framework for quantifying field emission from nanostructures. Materials Chemistry and Physics, 2020, 245, 122686.	2.0	8
88	Probing the effect of R-cation radii on structural, vibrational, optical, and dielectric properties of rare earth (R=La, Pr, Nd) aluminates. Ceramics International, 2022, 48, 23072-23080.	2.3	8
89	Phase Transformation and Optical Properties of Annealed Hydrothermally Synthesized ZnO/ZnCr <sub>2</sub> O <sub>4</sub> Nanocomposites. International Journal of Applied Ceramic Technology, 2016, 13, 912-919.	1.1	7
90	Evidence of bovine serum albumin-viologen herbicide binding interaction and associated structural modifications. Journal of Molecular Structure, 2017, 1139, 447-454.	1.8	7

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91	Polypyrrole-vanadium oxide nanocomposite: polymer dominates crystallinity and oxide dominates conductivity. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	1.1	7
92	Investigations on the Electronic Structure of the Strongly Correlated Electron System Cr-Doped PrFeO <sub>3</sub> . Journal of Physical Chemistry C, 2021, 125, 14048-14055.	1.5	7
93	Possible origin of electronic phase separation in La <sub>0.7</sub> Ca <sub>0.3</sub> MnO <sub>3</sub> . Journal of Applied Physics, 2008, 104, .	1.1	6
94	Possible origin of photoconductivity in La <sub>0.7</sub> Ca <sub>0.3</sub> MnO <sub>3</sub> . Journal of Applied Physics, 2010, 107, 023709.	1.1	6
95	Generalisation of phonon confinement model for interpretation of Raman line-shape from nano-silicon. Advances in Materials and Processing Technologies, 2018, 4, 227-233.	0.8	6
96	Effect of bismuth doping on optical properties of polycrystalline PrCrO <sub>3</sub> . AIP Conference Proceedings, 2020, , .	0.3	6
97	Structural, optical, and dielectric investigations in bulk PrCrO <sub>3</sub> . Journal of Materials Science: Materials in Electronics, 2020, 31, 16379-16388.	1.1	6
98	Electron diffraction evidence of charge-ordering at room-temperature in La <sub>1-x</sub> CaxMnO <sub>3</sub> (0.55 ≤ x ≤ 0.67). Solid State Communications, 2006, 137, 158-161.	0.9	5
99	Spectroscopic Evidence of Phosphorous Heterocycle-DNA Interaction and its Verification by Docking Approach. Journal of Fluorescence, 2018, 28, 373-380.	1.3	5
100	Studies on structural and optical gap tunability in $\pm$ -(Ga Cr(1-)) <sub>2</sub> O <sub>3</sub> solid solutions. Journal of Alloys and Compounds, 2018, 766, 876-885.	2.8	5
101	Investigating the structural, vibrational, optical, and dielectric properties in Mg-substituted LaAlO <sub>3</sub> . Journal of Materials Science: Materials in Electronics, 2022, 33, 13352-13366.	1.1	5
102	Possibility of relaxor-type ferroelectricity in delafossite CuCrO <sub>2</sub> near room temperature. Solid State Sciences, 2021, 112, 106509.	1.5	4
103	Effect of hafnium substitution on the dielectric properties of CaCu <sub>3</sub> Ti <sub>4</sub> O <sub>12</sub> . AIP Conference Proceedings, 2015, , .	0.3	3
104	Effect of Mn doping on dielectric response and optical band gap of LaGaO <sub>3</sub> . Advances in Materials and Processing Technologies, 2017, 3, 539-549.	0.8	3
105	Distorted octahedra induced anisotropic strain and local disorder in delafossite CuCrO <sub>2</sub> . Solid State Sciences, 2021, 117, 106602.	1.5	3
106	Spectroscopic Investigation of well aligned Silicon Nano wires Fabricated by Metal Induced Etching. Materials Today: Proceedings, 2016, 3, 1835-1839.	0.9	2
107	Construction of well aligned highly dense Cobalt nanoneedles for efficient device application. Advances in Materials and Processing Technologies, 2017, 3, 627-631.	0.8	2
108	Plug and Play Electrodeposition Cell: A Case Study of Bismuth Ferrite Thin Films for Photoelectrochemical Water Splitting. ECS Journal of Solid State Science and Technology, 2022, 11, 013006.	0.9	2

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109	Phase separation scenario in Ba doped LaMnO <sub>3</sub> . Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 3623-3627.	0.8	1
110	Crystallographic phase control of TiO <sub>2</sub> in thin films deposited by asymmetric bipolar pulsed DC sputtering. , 2012, , .		1
111	Simulation of thickness and optical constants from transmission spectrum of thin film by envelope method: Practical constraints and their solution. , 2012, , .		1
112	Readdressing the issue of low-temperature resistivity minimum in La <sub>0.7</sub> Ca <sub>0.3</sub> MnO <sub>3</sub> thin films. Applied Physics A: Materials Science and Processing, 2013, 113, 793-800.	1.1	1
113	Origin of photoluminescence from silicon nanowires prepared by metal induced etching (MIE). AIP Conference Proceedings, 2015, , .	0.3	1
114	An insight of spirooxindole-annulated thiopyran " DNA interaction: spectroscopic and docking approach of these biological materials. Advances in Materials and Processing Technologies, 2017, 3, 339-352.	0.8	1
115	Structural and optical properties of transparent, tunable bandgap semiconductor: $\pm$ -(Al <sub>x</sub> Cr <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> . Journal of Applied Physics, 2020, 128, 135703.	1.1	1
116	Comparison of spectral performance of HfO <sub>2</sub> •SiO <sub>2</sub> and TiO <sub>2</sub> •SiO <sub>2</sub> based high reflecting mirrors. , 2013, , .		0
117	Symmetry of the charge-ordered phases in Pr <sub>0.5</sub> Ca <sub>0.5</sub> MnO <sub>3</sub> . Philosophical Magazine, 2014, 94, 117-124.	0.7	0
118	Quantum confinement effect in cheese like silicon nano structure fabricated by metal induced etching. AIP Conference Proceedings, 2015, , .	0.3	0
119	Stability analysis of zigzag boron nitride nanoribbons. AIP Conference Proceedings, 2015, , .	0.3	0
120	Electronic and optical properties of Y-doped $\text{BaBiO}_3$ . European Physical Journal B, 2021, 94, 1.	0.6	0
121	Reply to the comment on Kumar A., Sagdeo A., Sagdeo P. R., Possibility of using ultraviolet radiation for disinfecting the novel COVID-19, Photodiagnosis and photodynamic therapy. 34 (2021) 102234. Photodiagnosis and Photodynamic Therapy, 2021, 35, 102419.	1.3	0
122	Effect of Ca substitution on structural and optical properties of multiferroic PrCrO <sub>3</sub> . AIP Conference Proceedings, 2021, , .	0.3	0
123	Structural, magnetic and electronic properties of Zn <sub>0.94</sub> Co <sub>0.06</sub> O/ZnO heterostructure. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	0
124	Correction to "Role of Laser Excitation Wavelength and Power in the Fano Resonance Scattering in RFe <sub>0.50</sub> Cr <sub>0.50</sub> O <sub>3</sub> (R = Sm, Er, and Eu): A Brief Raman Study" Journal of Physical Chemistry C, 2022, 126, 10618-10619.	1.5	0