

# Abdelilah Lahmar

## List of Publications by Year in descending order

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95  
papers

1,853  
citations

279798

23  
h-index

289244

40  
g-index

96  
all docs

96  
docs citations

96  
times ranked

1631  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of rare earth on physical properties of Na <sub>0.5</sub> Bi <sub>0.5</sub> TiO <sub>3</sub> system: A density functional theory investigation. <i>Journal of Rare Earths</i> , 2022, 40, 473-481.	4.8	16
2	Analyse of structural and electrical properties of NaBa <sub>(2-x)</sub> Nd <sub>2x/3</sub> Nb <sub>5</sub> O <sub>15</sub> solid solution with (0 ≤ x ≤ 1). <i>Journal of Alloys and Compounds</i> , 2022, 907, 164517.	4.0	2
3	Ferroelectric and photoelectrochemical studies of lead-free Ba <sub>0.925</sub> Bi <sub>0.05</sub> (Ti <sub>0.65</sub> Zr <sub>0.30</sub> Sn <sub>0.05</sub> )O <sub>3</sub> ceramic and its application to Rhodamine B oxidation under solar light. <i>Arabian Journal of Chemistry</i> , 2022, 15, 103744.	4.9	2
4	Impact of annealing on electrocaloric response in Lanthanum-modified lead zirconate titanate ceramic. <i>Journal of Alloys and Compounds</i> , 2022, 907, 164517.	5.5	2
5	Nanostructured BaTi <sub>1-x</sub> Sn <sub>x</sub> O <sub>3</sub> ferroelectric materials for electrocaloric applications and energy performance. <i>Current Applied Physics</i> , 2022, 38, 59-66.	2.4	2
6	Photoelectrochemical Enhancement of Graphene@WS <sub>2</sub> Nanosheets for Water Splitting Reaction. <i>Nanomaterials</i> , 2022, 12, 1914.	4.1	4
7	A novel phosphate, K <sub>4</sub> NiFe <sub>3</sub> (PO <sub>4</sub> ) <sub>5</sub> : Synthesis, crystal structure and magnetic properties. <i>Journal of Solid State Chemistry</i> , 2022, 313, 123333.	2.9	4
8	Multifunctionality of rare earth doped 0.925Na <sub>0.5</sub> Bi <sub>0.5</sub> TiO <sub>3</sub> -0.075K <sub>0.5</sub> Na <sub>0.5</sub> NbO <sub>3</sub> ferroelectric ceramics. <i>Journal of Alloys and Compounds</i> , 2022, 921, 166188.	5.5	8
9	Synthesis, characterization, magnetic properties, and lead sensing based on a new alluaudite-like phosphate Na <sub>2</sub> Mn <sub>2</sub> Cr(PO <sub>4</sub> ) <sub>3</sub> . <i>Journal of Materials Science</i> , 2021, 56, 2163-2175.	3.7	8
10	Enhancing the dielectric, electrocaloric and energy storage properties of lead-free Ba <sub>0.85</sub> Ca <sub>0.15</sub> Zr <sub>0.1</sub> Ti <sub>0.9</sub> O <sub>3</sub> ceramics prepared via sol-gel process. <i>Physica B: Condensed Matter</i> , 2021, 603, 412760.	2.7	30
11	Er <sup>3+</sup> and Er <sup>3+</sup> /Yb <sup>3+</sup> Ions Embedded in Nano-Structure BaTi <sub>0.9</sub> Sn <sub>0.1</sub> O <sub>3</sub> : Structure, Morphology and Dielectric Properties. <i>World Journal of Nano Science and Engineering</i> , 2021, 11, 25-43.	0.3	2
12	Synthesis, structural refinement and physical properties of novel perovskite ceramics Ba <sub>1-x</sub> BixTi <sub>1-x</sub> MnxO <sub>3</sub> (x = 0.3 and 0.4). <i>Materials Chemistry and Physics</i> , 2021, 262, 124302.	4.0	14
13	Effect of the BaO-Na <sub>2</sub> O-Nb <sub>2</sub> O <sub>5</sub> -P <sub>2</sub> O <sub>5</sub> glass addition on microstructure and dielectric properties of BNN ceramics. <i>Materials Today: Proceedings</i> , 2021, . .	1.8	1
14	Effect of thermal annealing on microstructure and optical properties of silver-carbon nanocomposite thin films. <i>Materials Today: Proceedings</i> , 2021, 51, 543-543.	1.8	0
15	Structural, dielectric, and ferroelectric properties of Na <sub>0.5</sub> (Bi <sub>1-x</sub> Ndx) <sub>0.5</sub> TiO <sub>3</sub> ceramics for energy storage and electrocaloric applications. <i>Ceramics International</i> , 2021, 47, 26539-26551.	4.8	23
16	The effects of N <sub>2</sub> atmosphere annealing on the physical properties of BiFe <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>3</sub> ceramic. <i>Journal of Alloys and Compounds</i> , 2021, 877, 160323.	5.5	5
17	Structural, dielectric and energy storage properties of Neodymium niobate with tetragonal tungsten bronze structure. <i>Physica B: Condensed Matter</i> , 2021, 618, 413185.	2.7	17
18	Design, structural evolution, optical, electrical and dielectric properties of perovskite ceramics Ba <sub>1-x</sub> BixTi <sub>1-x</sub> FexO <sub>3</sub> (0 ≤ x ≤ 0.8). <i>Materials Chemistry and Physics</i> , 2021, 273, 125096.	4.0	12

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19	Large direct and inverse electrocaloric effects in lead-free Dy doped 0.975KNN-0.025NBT ceramics. <i>Ceramics International</i> , 2021, 47, 31286-31293.	4.8	12
20	Prediction of magnetoelectric properties of defect BiFeO <sub>3</sub> thin films using Monte Carlo simulations. <i>Journal of Magnetism and Magnetic Materials</i> , 2021, 539, 168402.	2.3	9
21	Structural determination, dielectric and photoluminescence properties of Ba <sub>0.975</sub> Ln <sub>0.017</sub> (Ti <sub>0.95-x</sub> Zr <sub>x</sub> Sn <sub>0.05</sub> )O <sub>3</sub> (Ln = Eu, Ho; x = 0.05, 0.20). <i>Physica B: Condensed Matter</i> , 2021, 623, 413365.	2.7	2
22	First-principles investigation on multiferroic properties of BiFeO <sub>3</sub> -REMnO <sub>3</sub> (RE = Er, Eu, Gd, Ho, La, Tb). <i>Materials Today Communications</i> , 2021, 29, 102976.	1.9	2
23	Effect of BaO-Bi <sub>2</sub> O <sub>3</sub> -P <sub>2</sub> O <sub>5</sub> glass additive on structural, dielectric and energy storage properties of BaTiO <sub>3</sub> ceramics. <i>Materials Chemistry and Physics</i> , 2020, 241, 122434.	4.0	36
24	Complex impedance and Raman spectroscopy of Na <sub>0.5</sub> (Bi <sub>1-x</sub> Dy <sub>x</sub> ) <sub>0.5</sub> TiO <sub>3</sub> ceramics. <i>Ceramics International</i> , 2020, 46, 10979-10991.	4.8	46
25	Structural, optical, and dielectric properties of Bi <sub>2</sub> O <sub>3</sub> -K <sub>2</sub> O-TiO <sub>2</sub> -P <sub>2</sub> O <sub>5</sub> glasses and related glass-ceramics. <i>Phase Transitions</i> , 2020, 93, 1030-1047.	1.3	10
26	A new sodium- and manganese-based trivanadate NaMn <sub>2</sub> V <sub>3</sub> O <sub>10</sub> : synthesis, structural and magnetic insights. <i>Monatshefte für Chemie</i> , 2020, 151, 677-684.	1.8	1
27	Microstructure and surface characterization of Ni-Cr based composites containing variable solid lubricants. <i>Tribology - Materials, Surfaces and Interfaces</i> , 2020, 14, 219-228.	1.4	1
28	Enhanced magnetization in multiferroic nanocomposite Bi <sub>0.9</sub> Gd <sub>0.1</sub> Fe <sub>0.9</sub> Mn <sub>0.05</sub> X <sub>0.05</sub> O <sub>3</sub> (X = Cr, Co) thin films. <i>Thin Solid Films</i> , 2020, 709, 138025.	1.8	2
29	Electrocaloric response in lanthanum-modified lead zirconate titanate ceramics. <i>Journal of Applied Physics</i> , 2020, 127, .	2.5	9
30	Structural, dielectric, electrocaloric and energy storage properties of lead free Ba <sub>0.975</sub> La <sub>0.017</sub> (Zr <sub>x</sub> Ti <sub>0.95-x</sub> )Sn <sub>0.05</sub> O <sub>3</sub> (x = 0.05; 0.20) ceramics. <i>Materials Chemistry and Physics</i> , 2020, 252, 123462.	4.0	22
31	Calcination temperature effect on dielectric, structural and morphology properties of BaTiO <sub>3</sub> nano-structure prepared by modified sol-gel technique. <i>Advances in Natural Sciences: Nanoscience and Nanotechnology</i> , 2020, 11, 015015.	1.5	5
32	Structural, optical, and dielectric properties of the BaO-TiO <sub>2</sub> -P <sub>2</sub> O <sub>5</sub> glasses. <i>Journal of the Australian Ceramic Society</i> , 2020, 56, 1467-1479.	1.9	7
33	Magnetoelectric coupling at the NiFe <sub>2</sub> O <sub>4</sub> /PZT (001) interface: A density functional theory investigation. <i>Superlattices and Microstructures</i> , 2020, 139, 106401.	3.1	3
34	Evaluation of the impact of buffered peptone water composition on the discrimination between <i>Salmonella enterica</i> and <i>Escherichia coli</i> by Raman spectroscopy. <i>Analytical and Bioanalytical Chemistry</i> , 2020, 412, 3595-3604.	3.7	6
35	Chemical synthesis and magnetic properties of monodisperse cobalt ferrite nanoparticles. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 14913-14922.	2.2	32
36	A novel alluaudite-type vanadate, Na <sub>2</sub> Zn <sub>2</sub> Fe(VO <sub>4</sub> ) <sub>3</sub> : Synthesis, crystal structure, characterization and magnetic properties. <i>Inorganic Chemistry Communication</i> , 2019, 107, 107472.	3.9	2

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37	Unconventional spin-glass-like state in AgCo <sub>2</sub> V <sub>3</sub> O <sub>10</sub> , the novel magnetically frustrated material. Journal of Magnetism and Magnetic Materials, 2019, 491, 165623.	2.3	8
38	Structural, electrical and energy storage properties of Ba <sub>0.5</sub> Na <sub>2</sub> O <sub>2</sub> Nb <sub>2</sub> O <sub>5</sub> WO <sub>3</sub> P <sub>2</sub> O <sub>5</sub> glass-ceramics system. Materials Research Express, 2019, 6, 115203.		12
39	Synthesis and characterization of undoped and Er-doped ZnO nano-structure thin films deposited by sol-gel spin coating technique. Materials Research Express, 2019, 6, 085916.	1.6	21
40	Perovskite solar cells free of hole transport layer. Journal of Sol-Gel Science and Technology, 2019, 90, 443-449.	2.4	5
41	Modelling of the ferroelectric and energy storage properties of PbZr <sub>1-x</sub> Ti <sub>x</sub> O <sub>3</sub> thin films using Monte Carlo simulation. Materials Research Express, 2019, 6, 126429.	1.6	4
42	Synthesis, Characterization, and Magnetic Properties of A <sub>2</sub> Co <sub>2</sub> Fe(VO <sub>4</sub> ) <sub>3</sub> (A = Ag or Na) Alluaudite-Type Vanadates. Journal of Superconductivity and Novel Magnetism, 2019, 32, 2437-2446.	1.8	5
43	Tailoring the dielectric and energy storage properties in BaTiO <sub>3</sub> /BaZrO <sub>3</sub> superlattices. Materials Letters, 2019, 234, 279-282.	2.6	23
44	Phase separation and local lattice distortions analysis of charge-ordered manganese films La <sub>1-x</sub> CaxMnO <sub>3</sub> - by Raman spectroscopy. Superlattices and Microstructures, 2019, 127, 100-108.	3.1	4
45	Electrostatic energy storage in antiferroelectric like perovskite. Superlattices and Microstructures, 2019, 127, 43-48.	3.1	21
46	Magnetic properties of a new cobalt hydrogen vanadate with a dumortierite-like structure: Co <sub>13.5</sub> (OH) <sub>6</sub> (H <sub>0.5</sub> VO <sub>3.5</sub> ) <sub>2</sub> (VO <sub>4</sub> ) <sub>6</sub> . Acta Crystallographica Section C, Structural Chemistry, 2019, 75, 777-782.		10
47	Dielectric permittivity enhancement and large electrocaloric effect in the lead free (Ba <sub>0.8</sub> Ca <sub>0.2</sub> ) <sub>1-x</sub> La <sub>2x/3</sub> TiO <sub>3</sub> ferroelectric ceramics. Journal of Alloys and Compounds, 2018, 730, 501-508.	5.5	27
48	Structural and magnetic study of the influence of thickness on multilayer (Ni/NiO) deposits at room temperature. , 2018, , .		1
49	Structural investigation, dielectric, ferroelectric, and electrocaloric properties of lead-free Ba(1-x)CaxTi(1-x)(Li <sub>1/3</sub> Nb <sub>2/3</sub> ) <sub>x</sub> O <sub>3</sub> (x=0.02 and x=0.07) ceramics. Journal of Materials Science: Materials in Electronics, 2018, 29, 18640-18649.		16
50	Synthesis, Crystal Structure and Properties of a New Phosphate, Na <sub>2</sub> Co <sub>2</sub> Cr(PO <sub>4</sub> ) <sub>3</sub> . Journal of Inorganic and Organometallic Polymers and Materials, 2018, 28, 2854-2864.	3.7	11
51	Dielectric, ferroelectric, and energy storage properties in dysprosium doped sodium bismuth titanate ceramics. Ceramics International, 2018, 44, 19451-19460.	4.8	86
52	Structural, vibrational, and dielectric investigations of Ba <sub>0.925</sub> Bi <sub>0.05</sub> (Ti <sub>0.95-x</sub> Zr <sub>x</sub> )Sn <sub>0.05</sub> O <sub>3</sub> ceramics. Journal of Materials Science: Materials in Electronics, 2018, 29, 16144-16154.	2.2	5
53	Structural, dielectric and photoelectrochemical properties of new lead-free ceramics of composition Ba <sub>0.925</sub> Bi <sub>0.05</sub> (Ti <sub>0.95-x</sub> Zr <sub>x</sub> )Sn <sub>0.05</sub> O <sub>3</sub> . Acta Crystallographica Section A: Foundations and Advances, 2018, 74, e283-e283.	0.1	0
54	Electrocaloric effect and energy storage in lead free Gd <sub>0.02</sub> Na <sub>0.5</sub> Bi <sub>0.48</sub> TiO <sub>3</sub> ceramic. Solid State Sciences, 2017, 66, 31-37.	3.2	52

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55	Lead free Ba <sub>0.8</sub> Ca <sub>0.2</sub> Ti <sub>1-x</sub> O <sub>3</sub> ferroelectric ceramics exhibiting high electrocaloric properties. Journal of Applied Physics, 2017, 121, .	2.5	9
56	Sequence of structural transitions and electrocaloric properties in (Ba <sub>1-x</sub> Ca <sub>x</sub> )(Zr <sub>0.1</sub> Ti <sub>0.9</sub> )O <sub>3</sub> ceramics. Journal of Alloys and Compounds, 2017, 713, 164-179.	5.5	62
57	Multiferroic properties and frequency dependent coercive field in BiFeO <sub>3</sub> -LaMn <sub>0.5</sub> Co <sub>0.5</sub> O <sub>3</sub> thin films. Journal of Magnetism and Magnetic Materials, 2017, 439, 30-37.	2.3	8
58	Effects of lanthanide amphoteric incorporation on structural, electrical, and photoluminescence properties of BaTi <sub>0.925</sub> (Yb <sub>0.5</sub> Nb <sub>0.5</sub> ) <sub>0.075</sub> O <sub>3</sub> ceramic. Journal of Alloys and Compounds, 2017, 711, 205-214.	5.5	12
59	RF magnetron sputtering deposition of NiO/Ni bilayer and approach of the Magnetic behavior using the Preisach model. Journal of Magnetism and Magnetic Materials, 2017, 428, 377-381.	2.3	6
60	Structural and dielectrics properties of Pr <sup>3+</sup> doped BaTi <sub>0.925</sub> (Yb <sub>0.5</sub> Nb <sub>0.5</sub> ) <sub>0.075</sub> O <sub>3</sub> ceramics. Journal of Alloys and Compounds, 2017, 729, 858-865.	5.5	8
61	Energy storage property of Lead-free Na <sub>0.5</sub> Bi <sub>0.5</sub> TiO <sub>3</sub> ceramic and thin film. , 2017, , .		2
62	H <sub>2</sub> production by water radiolysis in presence of M/TiO <sub>2</sub> (M=3D Pt; Au) nanocomposite films. , 2017, , .		0
63	Optical properties of P3HT:tributylphosphine oxide-capped CdSe nanocomposites. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	6
64	Energy storage property in lead free gd doped Na <sub>1/2</sub> Bi <sub>1/2</sub> TiO <sub>3</sub> ceramics. Solid State Communications, 2016, 245, 1-4.	1.9	32
65	Structural, dielectric and electrocaloric properties in lead-free Zr-doped Ba <sub>0.8</sub> Ca <sub>0.2</sub> TiO <sub>3</sub> solid solution. Solid State Communications, 2016, 237-238, 49-54.	1.9	16
66	Effect of Pr <sup>3+</sup> doping on structural, electrical, and optical properties of BaTi <sub>0.925</sub> (Yb <sub>0.5</sub> Nb <sub>0.5</sub> ) <sub>0.075</sub> O <sub>3</sub> ceramics. Journal of Alloys and Compounds, 2016, 686, 153-159.	5.5	12
67	Indirect and direct electrocaloric measurements of (Ba <sub>1-x</sub> Ca <sub>x</sub> )(Zr <sub>0.1</sub> Ti <sub>0.9</sub> )O <sub>3</sub> ceramics (x=0.05, x=0.20). Journal of Alloys and Compounds, 2016, 667, 198-203.	5.5	45
68	Temperature influence on microstructure and optical properties of TiO <sub>2</sub> /Au thin films. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	4
69	Ferroelectric phase changes and electrocaloric effects in Ba(Zr <sub>0.1</sub> Ti <sub>0.9</sub> ) <sub>1-x</sub> Sn <sub>x</sub> O <sub>3</sub> ceramics solid solution. Journal of Materials Science, 2016, 51, 3454-3462.	3.7	30
70	Effect of CdSe nanoparticles incorporation on the performance of P3OT organic photovoltaic cells. Materials Science in Semiconductor Processing, 2016, 41, 343-349.	4.0	12
71	Electrocaloric effect in Ba <sub>0.2</sub> Ca <sub>0.8</sub> Ti <sub>0.95</sub> Ge <sub>0.05</sub> O <sub>3</sub> determined by a new pyroelectric method. Europhysics Letters, 2015, 111, 57008.	2.0	17
72	Sequence of structural transitions in BiFeO <sub>3</sub> /RMnO <sub>3</sub> thin films (R=Rare earth). Ceramics International, 2015, 41, 5721-5726.	4.8	12

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73	Lead-free Ba <sub>0.8</sub> Ca <sub>0.2</sub> (Zr <sub>x</sub> Ti <sub>1-x</sub> )O <sub>3</sub> ceramics with large electrocaloric effect. Applied Physics Letters, 2015, 106, .	3.3	127
74	Structural characterization and optical properties of pulsed laser deposition of Se <sub>75</sub> Te <sub>25</sub> and Se <sub>75</sub> Te <sub>17</sub> Ge <sub>8</sub> amorphous thin films. Materials Science in Semiconductor Processing, 2015, 39, 172-177.	4.0	3
75	Main Technological Advancements in Bacterial Bioluminescent Biosensors Over the Last Two Decades. Advances in Biochemical Engineering/Biotechnology, 2015, , 101-116.	1.1	5
76	Electrocaloric effect and luminescence properties of lanthanide doped (Na <sub>1/2</sub> Bi <sub>1/2</sub> )TiO <sub>3</sub> lead free materials. Applied Physics Letters, 2015, 107, .	3.3	56
77	Electro-caloric effect in lead-free ferroelectric Ba <sub>1-x</sub> Ca (Zr <sub>0.1</sub> Ti <sub>0.9</sub> ) <sub>0.925</sub> Sn <sub>0.075</sub> O <sub>3</sub> ceramics. Ceramics International, 2015, 41, 15103-15110.	4.8	38
78	Ferroelectric properties of manganese doped (Bi <sub>1/2</sub> Na <sub>1/2</sub> )TiO <sub>3</sub> and (Bi <sub>1/2</sub> Na <sub>1/2</sub> )TiO <sub>3</sub> ∕BaTiO <sub>3</sub> epitaxial thin films. Applied Surface Science, 2015, 359, 923-930.	6.1	27
79	Room temperature electro-caloric effect in lead-free Ba(Zr <sub>0.1</sub> Ti <sub>0.9</sub> ) <sub>1-x</sub> Sn O <sub>3</sub> (x=0, x=0.075) ceramics. Solid State Communications, 2015, 201, 64-67.	1.9	60
80	Microstructure and property control in TiO <sub>2</sub> ∕Pt nanocomposite thin films. Ceramics International, 2015, 41, 443-449.	4.8	13
81	Structural and dielectric properties of a new lead-free ferroelectric Ba <sub>0.8</sub> Ca <sub>0.2</sub> Ti <sub>0.8</sub> Ge <sub>0.2</sub> O <sub>3</sub> ceramics. Superlattices and Microstructures, 2014, 71, 162-167.	3.1	11
82	Single crystal structure determination and infrared fluorescence of the system (K <sub>3</sub> Sr <sub>1-x</sub> Ndx) (Nd <sub>1-x</sub> Sr <sub>1+x</sub> ) Nb <sub>10</sub> O <sub>30</sub> . Materials Research Bulletin, 2012, 47, 2566-2572.	5.2	3
83	Structural, optical, and electrical properties of Nd-doped Na <sub>0.5</sub> Bi <sub>0.5</sub> TiO <sub>3</sub> . Materials Chemistry and Physics, 2012, 134, 829-833.	4.0	92
84	Off-stoichiometry effects on BiFeO <sub>3</sub> thin films. Solid State Ionics, 2011, 202, 1-5. Dielectric, ultraviolet/visible, and Raman spectroscopic investigations of the phase transition	2.7	67
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91	Investigation of the cationic distribution within the lattice of a series of niobates with tetragonal tungsten bronze structure. Journal of Electroceramics, 2008, 21, 719-723.	2.0	0
92	Observation of structural transitions and Jahn-Teller distortion in LaMnO <sub>3</sub> -doped BiFeO <sub>3</sub> thin films. Applied Physics Letters, 2008, 92, .	3.3	72
93	Adhesion Improvement of Poly(Phenylene-Vinylene) Substrates Induced by Argon-Oxygen Plasma Treatment. Journal of Adhesion, 1998, 66, 303-317.	3.0	17
94	Theoretical Investigation of Magnetoelectric Coupling in MFe <sub>2</sub> O <sub>4</sub> /PbZ <sub>0.5</sub> T <sub>0.5</sub> O <sub>3</sub> /MFe <sub>2</sub> O <sub>4</sub> (M = Ni, Co) Heterostructure. Journal of Superconductivity and Novel Magnetism, 0, , 1.	1.8	4
95	Magnetically controlled insertion of cobalt ferrite nanoparticles into a porous anodic aluminum oxide (AAO) membrane. Applied Nanoscience (Switzerland), 0, , 1.	3.1	0