

# Abdelilah Lahmar

## List of Publications by Year in descending order

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95  
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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	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
2	Effects of rare earth manganites on structural, ferroelectric, and magnetic properties of BiFeO <sub>3</sub> thin films. Applied Physics Letters, 2009, 94, .	3.3	109
3	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
4	Dielectric, ferroelectric, and energy storage properties in dysprosium doped sodium bismuth titanate ceramics. Ceramics International, 2018, 44, 19451-19460.	4.8	86
5	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
6	Off-stoichiometry effects on BiFeO <sub>3</sub> thin films. Solid State Ionics, 2011, 202, 1-5.	2.7	67
7	Brookite Formation in TiO <sub>2</sub> /Ag Nanocomposites and Visible-Light-Induced Templated Growth of Ag Nanostructures in TiO <sub>2</sub> . Advanced Functional Materials, 2010, 20, 377-385.	14.9	63
8	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
9	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
10	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
11	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
12	Correlation between structure, dielectric, and ferroelectric properties in BiFeO <sub>3</sub> -LaMnO <sub>3</sub> solid solution thin films. Journal of Applied Physics, 2009, 105, 014111.	2.5	50
13	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. Ceramics International, 2020, 46, 10979-10991.	4.8	46
14	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
15	Multiferroic properties of Bi <sub>0.9</sub> Gd <sub>0.1</sub> Fe <sub>0.9</sub> Mn <sub>0.1</sub> O <sub>3</sub> thin film. Journal of Applied Physics, 2010, 107, .	2.5	41
16	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
17	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. Materials Chemistry and Physics, 2020, 241, 122434.	4.0	36
18	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

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19	Chemical synthesis and magnetic properties of monodisperse cobalt ferrite nanoparticles. Journal of Materials Science: Materials in Electronics, 2019, 30, 14913-14922.	2.2	32
20	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
21	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. Physica B: Condensed Matter, 2021, 603, 412760.	2.7	30
22	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
23	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
24	Substrate heterostructure effects on interface composition, microstructure development and functional properties of PZT thin films. Acta Materialia, 2009, 57, 2328-2338. Dielectric, ultraviolet/visible, and Raman spectroscopic investigations of the phase transition	7.9	23
25			

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37	Microstructure and property control in TiO <sub>2</sub> @Pt nanocomposite thin films. <i>Ceramics International</i> , 2015, 41, 443-449.	4.8	13
38	Sequence of structural transitions in BiFeO <sub>3</sub> @RMnO <sub>3</sub> thin films (R=Rare earth). <i>Ceramics International</i> , 2015, 41, 5721-5726.	4.8	12
39	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. <i>Journal of Alloys and Compounds</i> , 2016, 686, 153-159.	5.5	12
40	Effect of CdSe nanoparticles incorporation on the performance of P3OT organic photovoltaic cells. <i>Materials Science in Semiconductor Processing</i> , 2016, 41, 343-349.	4.0	12
41	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. <i>Journal of Alloys and Compounds</i> , 2017, 711, 205-214.	5.5	12
42	Structural, electrical and energy storage properties of BaO@Na <sub>2</sub> O@Nb <sub>2</sub> O <sub>5</sub> @WO <sub>3</sub> @P <sub>2</sub> O <sub>5</sub> glass-ceramics system. <i>Materials Research Express</i> , 2019, 6, 115203.		12
43	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
44	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
45	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. <i>Superlattices and Microstructures</i> , 2014, 71, 162-167.	3.1	11
46	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> . <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2018, 28, 2854-2864.	3.7	11
47	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
48	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. <i>Journal of Applied Physics</i> , 2017, 121, .	2.5	9
49	Electrocaloric response in lanthanum-modified lead zirconate titanate ceramics. <i>Journal of Applied Physics</i> , 2020, 127, .	2.5	9
50	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
51	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. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 439, 30-37.	2.3	8
52	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. <i>Journal of Alloys and Compounds</i> , 2017, 729, 858-865.	5.5	8
53	Unconventional spin-glass-like state in AgCo <sub>2</sub> V <sub>3</sub> O <sub>10</sub> , the novel magnetically frustrated material. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 491, 165623.	2.3	8
54	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

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55	Multifunctionality of rare earth doped 0.925Na0.5Bi0.5TiO3-0.075K0.5Na0.5NbO3 ferroelectric ceramics. Journal of Alloys and Compounds, 2022, 921, 166188.	5.5	8
56	Structural, optical, and dielectric properties of the BaO $\cdot$ TiO $\cdot$ P2O5 glasses. Journal of the Australian Ceramic Society, 2020, 56, 1467-1479.	1.9	7
57	Optical properties of P3HT:tributylphosphine oxide-capped CdSe nanocomposites. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	6
58	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
59	Structural investigation, dielectric, ferroelectric, and electrocaloric properties of lead-free Ba(1 $\cdot$ x)CaxTi(1 $\cdot$ x)(Li1/3Nb2/3)xO3 $\cdot$ (x $\cdot$ =0.02 and x $\cdot$ =0.07) ceramics. Journal of Materials Science: Materials in Electronics, 2018, 29, 18640-18649.	3.7	6
60	Evaluation of the impact of buffered peptone water composition on the discrimination between Salmonella enterica and Escherichia coli by Raman spectroscopy. Analytical and Bioanalytical Chemistry, 2020, 412, 3595-3604.	1.1	5
61	Main Technological Advancements in Bacterial Bioluminescent Biosensors Over the Last Two Decades. Advances in Biochemical Engineering/Biotechnology, 2015, , 101-116.	2.2	5
62	Structural, vibrational, and dielectric investigations of Ba0.925Bi0.05(Ti0.95 $\cdot$ xZrx)Sn0.05O3 ceramics. Journal of Materials Science: Materials in Electronics, 2018, 29, 16144-16154.	2.4	5
63	Perovskite solar cells free of hole transport layer. Journal of Sol-Gel Science and Technology, 2019, 90, 443-449.	1.8	5
64	Synthesis, Characterization, and Magnetic Properties of A2Co2Fe(VO4)3 (A = Ag or Na) Alluaudite-Type Vanadates. Journal of Superconductivity and Novel Magnetism, 2019, 32, 2437-2446.	1.5	5
65	Calcination temperature effect on dielectric, structural and morphology properties of BaTiO <sub>3</sub> nano-structure prepared by modified sol $\cdot$ gel technique. Advances in Natural Sciences: Nanoscience and Nanotechnology, 2020, 11, 015015.	5.5	5
66	The effects of N2 atmosphere annealing on the physical properties of BiFe0.5Mn0.5O3 ceramic. Journal of Alloys and Compounds, 2021, 877, 160323.	2.3	4
67	Temperature influence on microstructure and optical properties of TiO $\cdot$ Au thin films. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.6	4
68	Modelling of the ferroelectric and energy storage properties of PbZr <sub>1<math>\cdot</math>x</sub> Ti <sub>x</sub> O <sub>3</sub> thin films using Monte Carlo simulation. Materials Research Express, 2019, 6, 126429.	3.1	4
69	Phase separation and local lattice distortions analysis of charge-ordered manganese films La1-CaxMnO3- by Raman spectroscopy. Superlattices and Microstructures, 2019, 127, 100-108.	1.8	4
70	Theoretical Investigation of Magnetoelectric Coupling in MFe2O4/PbZ0.5T0.5O3/MFe2O4 (M $\cdot$ =Ni, Co) Heterostructure. Journal of Superconductivity and Novel Magnetism, 0, , 1.	4.1	4
71	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.		
72	Photoelectrochemical Enhancement of Graphene@WS2 Nanosheets for Water Splitting Reaction. Nanomaterials, 2022, 12, 1914.		

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73	A novel phosphate, $K_4NiFe_3(PO_4)_5$ : Synthesis, crystal structure and magnetic properties. <i>Journal of Solid State Chemistry</i> , 2022, 313, 123333.	2.9	4
74	Single crystal structure determination and infrared fluorescence of the system $(K_3Sr_{1-x}Nd_x)(Nd_{1-x}Sr_{1+x})Nb_{10}O_{30}$ . <i>Materials Research Bulletin</i> , 2012, 47, 2566-2572.	5.2	3
75	Structural characterization and optical properties of pulsed laser deposition of $Se_{75}Te_{25}$ and $Se_{75}Te_{17}Ge_8$ amorphous thin films. <i>Materials Science in Semiconductor Processing</i> , 2015, 39, 172-177.	4.0	3
76	Magnetoelectric coupling at the $NiFe_2O_4/PZT$ (001) interface: A density functional theory investigation. <i>Superlattices and Microstructures</i> , 2020, 139, 106401.	3.1	3
77	Energy storage property of Lead-free $Na_{0.5}Bi_{0.5}TiO_3$ ceramic and thin film. , 2017, , .		2
78	A novel alluaudite-type vanadate, $Na_2Zn_2Fe(VO_4)_3$ : Synthesis, crystal structure, characterization and magnetic properties. <i>Inorganic Chemistry Communication</i> , 2019, 107, 107472.	3.9	2
79	Enhanced magnetization in multiferroic nanocomposite $Bi_{0.9}Gd_{0.1}Fe_{0.9}Mn_{0.05}X_{0.05}O_3$ (X= Cr, Co) thin films. <i>Thin Solid Films</i> , 2020, 709, 138025.	1.8	2
80	$Er^{3+}$ and $Er^{3+}/Yb^{3+}$ Ions Embedded in Nano-Structure $BaTi_{0.9}Sn_{0.1}O_3$ : Structure, Morphology and Dielectric Properties. <i>World Journal of Nano Science and Engineering</i> , 2021, 11, 25-43.	0.3	2
81	Structural determination, dielectric and photoluminescence properties of $Ba_{0.975}Ln_{0.017}(Ti_{0.95-x}Zr_xSn_{0.05})O_3$ (Ln = Eu, Ho; x= 0.05, 0.20). <i>Physica B: Condensed Matter</i> , 2021, 623, 413365.	2.7	2
82	First-principles investigation on multiferroic properties of $BiFeO_3-REMnO_3$ (RE = Er, Eu, Gd, Ho, La, Tb). <i>Materials Today Communications</i> , 2021, 29, 102976.	1.9	2
83	Analyse of structural and electrical properties of $NaBa_{2-x}Nd_x/3Nb_5O_{15}$ solid solution with $(0 \leq x \leq 1)$ . <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 10784314.	4.0	2
84	Ferroelectric and photoelectrochemical studies of lead-free $Ba_{0.925}Bi_{0.05}Ti_{0.025}(Ti_{0.65}Zr_{0.30}Sn_{0.05})O_3$ ceramic and its application to Rhodamine B oxidation under solar light. <i>Arabian Journal of Chemistry</i> , 2022, 15, 103744.	4.9	2
85	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
86	Nanostructured $BaTi_{1-x}Sn_xO_3$ ferroelectric materials for electrocaloric applications and energy performance. <i>Current Applied Physics</i> , 2022, 38, 59-66.	2.4	2
87	Structural and magnetic study of the influence of thickness on multilayer (Ni/NiO) deposits at room temperature. , 2018, , .		1
88	A new sodium- and manganese-based trivanadate $NaMn_2V_3O_{10}$ : synthesis, structural and magnetic insights. <i>Monatshefte für Chemie</i> , 2020, 151, 677-684.	1.8	1
89	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
90	Effect of the $BaO-Na_2O-Nb_2O_5-P_2O_5$ glass addition on microstructure and dielectric properties of BNN ceramics. <i>Materials Today: Proceedings</i> , 2021, , .	1.8	1

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91	Investigation of the cationic distribution within the lattice of a series of niobates with tetragonal tungsten bronze structure. <i>Journal of Electroceramics</i> , 2008, 21, 719-723.	2.0	0
92	H <sub>2</sub> O <sub>2</sub> production by water radiolysis in presence of M/TiO <sub>2</sub> (M=3D Pt; Au) nanocomposite films. , 2017, , .		0
93	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
94	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</sub> <sup>x</sup> Zr <sub>x</sub> )Sn <sub>0.05</sub> O <sub>3</sub> . <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2018, 74, e283-e283.	0.1	0
95	Magnetically controlled insertion of cobalt ferrite nanoparticles into a porous anodic aluminum oxide (AAO) membrane. <i>Applied Nanoscience (Switzerland)</i> , 0, , 1.	3.1	0