

# Edi Gilioli

## List of Publications by Year in descending order

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119  
papers

1,967  
citations

279798

23  
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302126

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122  
all docs

122  
docs citations

122  
times ranked

2279  
citing authors

#	ARTICLE	IF	CITATIONS
1	Role of Disorder in the Thermodynamics and Atomic Dynamics of Glasses. Physical Review Letters, 2014, 112, 025502.	7.8	125
2	Charge, orbital and spin ordering phenomena in the mixed valence manganite (NaMn <sub>3+3</sub> )(Mn <sub>3+2</sub> Mn <sub>4+2</sub> )O <sub>12</sub> . Nature Materials, 2004, 3, 48-52.	27.5	115
3	Room Temperature Polymorphism in Metastable BiMnO <sub>3</sub> Prepared by High-Pressure Synthesis. Chemistry of Materials, 2005, 17, 1765-1773.	6.7	91
4	High-Temperature Polymorphism in Metastable BiMnO <sub>3</sub> . Chemistry of Materials, 2005, 17, 6457-6467.	6.7	80
5	Structural anomalies at the magnetic transition in centrosymmetric BiMnO <sub>3</sub> . Physical Review B, 2007, 75, .	3.2	75
6	Magnetic structure of the high-density single-valent $e_g$ Jahn-Teller system $LaMn_{7/2}$ . Physical Review B, 2009, 79, .	3.2	52
7	Role of the substrates in the ribbon orientation of Sb <sub>2</sub> Se <sub>3</sub> films grown by Low-Temperature Pulsed Electron Deposition. Solar Energy Materials and Solar Cells, 2020, 218, 110724.	6.2	50
8	Elastic properties of permanently densified silica: A Raman, Brillouin light, and x-ray scattering study. Physical Review B, 2010, 81, .	3.2	49
9	15% efficient Cu(In,Ga)Se <sub>2</sub> solar cells obtained by low-temperature pulsed electron deposition. Applied Physics Letters, 2012, 101, .	3.3	49
10	CuSbSe <sub>2</sub> thin film solar cells with ~4% conversion efficiency grown by low-temperature pulsed electron deposition. Solar Energy Materials and Solar Cells, 2018, 185, 86-96.	6.2	48
11	Emergence of Crystal-like Atomic Dynamics in Glasses at the Nanometer Scale. Physical Review Letters, 2013, 110, 185503.	7.8	47
12	Synthesis and characterization of multiferroic $BiMn_{7/2}$ . Physical Review B, 2009, 79, .	3.2	45
13	Bifacial CIGS solar cells grown by Low Temperature Pulsed Electron Deposition. Solar Energy Materials and Solar Cells, 2017, 166, 247-253.	6.2	45
14	Vibrational dynamics of permanently densified GeO <sub>2</sub> glasses: Densification-induced changes in the boson peak. Journal of Chemical Physics, 2010, 132, 124508.	3.0	43
15	High pressure and multiferroics materials: a happy marriage. IUCrj, 2014, 1, 590-603.	2.2	43
16	Immobilization of a pectinlyase from Aspergillus niger for application in food technology. Enzyme and Microbial Technology, 1995, 17, 729-738.	3.2	41
17	Low temperature deposition of bifacial CIGS solar cells on Al-doped Zinc Oxide back contacts. Applied Surface Science, 2017, 412, 52-57.	6.1	36
18	Structural Evolution and Medium Range Order in Permanently Densified Vitreous $SiO_2$ . Physical Review Letters, 2014, 112, 045501.	7.8	34

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19	Dielectric versus Magnetic Pairing Mechanisms in High-Temperature Cuprate Superconductors Investigated Using Raman Scattering. Physical Review Letters, 2013, 111, 237001.	7.8	30
20	Possible phase separation and weak localization in the absence of a charge-density wave in single-phase $\text{PrMnO}_3$ . Physical Review B, 2014, 89, 114408.	3.2	26
21	High-pressure synthesis and characterization of $\text{PrMnO}_3$ . Physical Review B, 2009, 79, 114408.	3.2	26
22	Structural properties and multiferroic phase diagram of $\text{K}_2\text{Mn}_2\text{F}_7$ . Physical Review B, 2008, 78, 040408.	3.2	25
23	Structural properties and multiferroic phase diagram of $\text{MnO}$ . Physical Review B, 2008, 78, 040408.	3.2	24
24	Low-temperature growth of single-crystal $\text{Cu}(\text{In,Ga})\text{Se}_2$ films by pulsed electron deposition technique. Solar Energy Materials and Solar Cells, 2015, 133, 82-86.	6.2	23
25	SR study of double perovskites. Physica B: Condensed Matter, 2006, 374-375, 55-58.	2.7	21
26	Structural changes and elastic characteristics of permanently densified vitreous $\text{BaO}$ . Physical Review B, 2008, 78, 040408.	3.2	21
27	Progress on Low-Temperature Pulsed Electron Deposition of $\text{CuInGaSe}_2$ Solar Cells. Energies, 2016, 9, 207.	3.1	21
28	Solution-free and catalyst-free synthesis of $\text{ZnO}$ -based nanostructured TCOs by PED and vapor phase growth techniques. Nanotechnology, 2012, 23, 194008.	2.6	20
29	Influence of Packing on Low Energy Vibrations of Densified Glasses. Physical Review Letters, 2013, 111, 245502.	7.8	20
30	Dielectric properties of doping-free $\text{NaMn}_7\text{O}_{12}$ : Origin of the observed colossal dielectric constant. Physical Review B, 2006, 74, .	3.2	19
31	Uniformity and physical properties of semi-insulating Fe-doped $\text{InP}$ after wafer or ingot annealing. Journal of Applied Physics, 1997, 82, 3836-3845.	2.5	18
32	Commensurate structural modulation in the charge- and orbitally ordered phase of the quadruple perovskite $\text{Mn}_4\text{O}_{12}$ . Physical Review B, 2008, 78, 040408.	3.2	18
33	Poling-Written Ferroelectricity in Bulk Multiferroic Double-Perovskite $\text{BiFe}_{0.5}\text{Mn}_{0.5}\text{O}_3$ . Inorganic Chemistry, 2016, 55, 6308-6314.	4.0	18
34	Study of the mechanical properties of $\text{CeO}_2$ layers with the nanoindentation technique. Thin Solid Films, 2009, 518, 227-232.	1.8	17
35	Polymorphism and Multiferroicity in $\text{Bi}_{1-x/3}(\text{MnIII})_x(\text{MnIII}_4-x\text{MnIV}_x)\text{O}_{12}$ . Chemistry of Materials, 2011, 23, 3628-3635.	6.7	15
36	Magnetolectric coupling driven by inverse magnetostriction in multiferroic $\text{BiMn}_3\text{Mn}_4\text{O}_{12}$ . Journal of Applied Physics, 2013, 113, .	2.5	15

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37	Structure and superconductivity of YSr <sub>2</sub> Cu <sub>3</sub> O <sub>7-δ</sub> . Physica C: Superconductivity and Its Applications, 2000, 341-348, 605-606.	1.2	14
38	Co-evaporated YBCO/doped-CeO <sub>2</sub> /Ni <sup>W</sup> coated conductors oxygen improved using a supersonic nozzle. Physica C: Superconductivity and Its Applications, 2007, 463-465, 609-614.	1.2	14
39	Jahn-Teller induced crossover of the paramagnetic response in the singly valent $\text{LaMnO}_3$ . Physical Review B, 2010, 81, .	3.2	14
40	Dynamics of evaporation from CuGaSe <sub>2</sub> targets in pulsed electron deposition technique. Journal Physics D: Applied Physics, 2013, 46, 245101.	2.8	14
41	Structural Evolution under Pressure of BiMnO <sub>3</sub> . Inorganic Chemistry, 2014, 53, 8749-8754.	4.0	14
42	Thermoelectric behavior of Ruddlesden-Popper series iridates. Journal of Physics Condensed Matter, 2016, 28, 065601.	1.8	14
43	Can the structure of the Ti or V MagnAl binary oxides host superconductivity?. Physica C: Superconductivity and Its Applications, 2000, 338, 1-8.	1.2	13
44	Optical study of the vibrational and dielectric properties of BiMnO <sub>3</sub> . Physical Review B, 2015, 92, .	3.2	13
45	Comparative study about Al-doped zinc oxide thin films deposited by Pulsed Electron Deposition and Radio Frequency Magnetron Sputtering as Transparent Conductive Oxide for Cu(In,Ga)Se <sub>2</sub> -based solar cells. Thin Solid Films, 2015, 582, 317-322.	1.8	13
46	P-T phase diagram and single crystal structural refinement of NaMn <sub>7</sub> O <sub>12</sub> . Solid State Sciences, 2005, 7, 746-752.	3.2	12
47	Silicon carbide thin films for EUV and soft X-ray applications. European Physical Journal: Special Topics, 2009, 169, 159-165.	2.6	12
48	Ferroelectricity in the 1/4 C cm <sup>2</sup> range induced by canted antiferromagnetism in (LaMn <sub>3</sub> )Mn <sub>4</sub> O <sub>12</sub> . Applied Physics Letters, 2019, 115, 152902.	3.3	12
49	The Role of Chemical Substitutions on Bi-2212 Superconductors. Crystals, 2020, 10, 462.	2.2	12
50	Local lattice distortions and dynamics in extremely overdoped superconducting YSr <sub>2</sub> Cu <sub>2.75</sub> Mo <sub>0.25</sub> O <sub>7.54</sub> . Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 4559-4564.	7.1	12
51	Mechanical against chemical pressure in the Y(Ba <sub>1-x</sub> Sr <sub>x</sub> ) <sub>2</sub> Cu <sub>3</sub> O <sub>7-δ</sub> system. Physica C: Superconductivity and Its Applications, 2000, 341-348, 375-378.	1.2	11
52	Chemical Pressure-Induced Ferromagnetism and Stabilization of the Metallic State in Ba <sub>1-x</sub> Sr <sub>x</sub> VS <sub>3</sub> . International Journal of Modern Physics B, 2003, 17, 3503-3508.	2.0	11
53	Elastic and anelastic properties of densified vitreous B <sub>2</sub> O <sub>3</sub> : Relaxations and anharmonicity. Physical Review B, 2012, 85, .	3.2	11
54	Ca-Zn solid solutions in C <sub>2</sub> /cpyroxenes: Synthesis, crystal structure, and implications for Zn geochemistry. American Mineralogist, 2015, 100, 2209-2218.	1.9	11

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55	Structural and magnetic characterization of the double perovskite $\text{Pb}_{2-x}\text{FeMoO}_6$ . Journal of Materials Chemistry C, 2016, 4, 1533-1542.	5.5	11
56	Growth and structural characterization of $\text{Sb}_2\text{Se}_3$ solar cells with vertical $\text{Sb}_4\text{Se}_6$ ribbon alignment by RF magnetron sputtering. Journal Physics D: Applied Physics, 2021, 54, 385502.	2.8	11
57	Acoustic behaviour of normal and densified vitreous $\text{GeO}_2$ . Philosophical Magazine, 2008, 88, 4143-4150.	1.6	10
58	Evolution of Magneto-Orbital order Upon $B$ -Site Electron Doping in $\text{NaMnO}_3$ . Physical Review Letters, 2018, 120, 257202.	7.8	10
59	Effect of chemical pressure induced by $\text{La}^{3+}/\text{Y}^{3+}$ substitution on the magnetic ordering of $(\text{AMn}_3)\text{Mn}_4\text{O}_{12}$ quadruple perovskites. Physical Review Materials, 2017, 1, .	2.4	10
60	Optical and spectroscopic characterization of permanently densified $\text{GeO}_2$ glasses. Philosophical Magazine, 2008, 88, 3907-3914.	1.6	9
61	Growth of $\text{Cu}(\text{In,Ga})\text{Se}_2$ thin films by a novel <i>single-stage</i> route based on pulsed electron deposition. Progress in Photovoltaics: Research and Applications, 2013, 21, 588-594.	8.1	9
62	Origin of excess low-energy vibrations in densified $\text{B}_2\text{O}_3$ glasses. Philosophical Magazine, 2015, 95, 2596-2606.	1.6	9
63	Centrosymmetry Breaking and Ferroelectricity Driven by Short-Range Magnetic Order in the Quadruple Perovskite $(\text{YMn}_3)\text{Mn}_4\text{O}_{12}$ . Inorganic Chemistry, 2019, 58, 14204-14211.	4.0	9
64	Metastable (CuAu-type) $\text{CuInS}_2$ Phase: High-Pressure Synthesis and Structure Determination. Inorganic Chemistry, 2020, 59, 11670-11675.	4.0	9
65	Nonadiabatic coupling of the dynamical structure to the superconductivity in $\text{YSr}_2\text{Cu}_{2.75}\text{Mo}_{0.25}\text{O}_{7.54}$ and $\text{Sr}_2\text{CuO}_{3.3}$ . Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 33099-33106.	7.1	9
66	Annealing Effect on One Step Electrodeposited $\text{CuSbSe}_2$ Thin Films. Coatings, 2022, 12, 75.	2.6	9
67	Superconductivity and microstructure of $\text{YSr}_2\text{Cu}_3\text{O}_6$ . Physical Review B, 2002, 66, .	3.2	8
68	Structural, transport, and electronic properties of a layered dichalcogenide $\text{AuVS}_2$ with semimetallic properties. Physical Review B, 2002, 66, .	3.2	8
69	Using High Pressure to Prepare Polymorphs of the $\text{Ba}_2\text{Co}_1\text{Zn}_x\text{S}_3$ ( $0 \leq x \leq 1.0$ ) Compounds. Inorganic Chemistry, 2012, 51, 397-404.	4.0	8
70	New insights on the specific heat of glasses. Philosophical Magazine, 2016, 96, 754-760.	1.6	8
71	An affordable method to produce $\text{CuInS}_2$ mechano-targets™ for film deposition. Semiconductor Science and Technology, 2020, 35, 045026.	2.0	8
72	Homogeneity of thermally annealed Fe-doped InP wafers. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 44, 233-237.	3.5	7

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73	A study of iron incorporation in LEC-grown indium phosphide. Journal of Crystal Growth, 1996, 166, 572-577.	1.5	6
74	Magnetic response of the CE structure in the doping-free system $\text{NaMn}_7\text{O}_{12}$ . Physical Review B, 2005, 71, .	3.2	6
75	Magnetic and Mossbauer characterization of the multiferroic fluoride $\text{K}_3\text{Fe}_5\text{F}_{14}$ . <small>xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" &lt;math&gt;K_3Fe_5F_{14}&lt;/math&gt;</small>	3.2	6
76	Structural transformations, elastic moduli and thermal expansion of permanently compacted $\text{B}_2\text{O}_3$ glasses. Journal of Non-Crystalline Solids, 2014, 401, 40-43.	3.1	6
77	Extremely Overdoped Superconducting Cuprates via High Pressure Oxygenation Methods. Condensed Matter, 2021, 6, 50.	1.8	6
78	Variations in structural and physical properties of $\text{RuSr}_2\text{GdCu}_2\text{O}_8$ samples submitted to annealing and deoxygenation procedures. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E1047-E1049.	2.3	5
79	Unusual $e_g$ $3d \times 2a_1^2$ Orbital Ordering and Low-Energy Excitations in the CE Structure of $\text{NaMn}_7\text{O}_{12}$ . Journal of Superconductivity and Novel Magnetism, 2005, 18, 675-680.	0.5	5
80	Crystal growth and structural refinement of $\text{NaMn}_7\text{O}_{12}$ . Crystal Research and Technology, 2005, 40, 1072-1075.	1.3	5
81	High-pressure growth of $\text{NaMn}_7\text{O}_{12}$ crystals. Journal of Solid State Chemistry, 2006, 179, 3839-3848.	2.9	5
82	Progress on Single Buffer Layered Coated Conductors Prepared by Thermal Evaporation. IEEE Transactions on Applied Superconductivity, 2007, 17, 3413-3416.	1.7	5
83	Joule heating-assisted growth of $\text{Cu}(\text{In,Ga})\text{Se}_2$ solar cells. Journal of Renewable and Sustainable Energy, 2015, 7, 013112.	2.0	5
84	Field effects on spontaneous magnetization reversal of bulk $\text{BiFe}_{0.5}\text{Mn}_{0.5}\text{O}_3$ , an effective strategy for the study of magnetic disordered systems. Journal of Physics Condensed Matter, 2015, 27, 286002.	1.8	5
85	Synthesis and crystal structure of $\text{Ca}(\text{Co,Mg})\text{Si}_2\text{O}_6$ pyroxenes: effect of the cation substitution on cell volume. Mineralogical Magazine, 2017, 81, 1129-1139.	1.4	5
86	Phase Transitions in the Metastable Perovskite Multiferroics $\text{BiCrO}_3$ and $\text{BiCr}_{0.9}\text{Sc}_{0.1}\text{O}_3$ : A Comparative Study. Inorganic Chemistry, 2020, 59, 8727-8735.	4.0	5
87	Crystal and electronic structures of superconducting $\text{YSr}_2\text{Cu}_3\text{O}_{6+x}$ . , 2000, , .		4
88	Effects of permanent densification on the vibrational density of states of vitreous silica. Journal of Non-Crystalline Solids, 2011, 357, 1892-1894.	3.1	4
89	Low temperature pulsed electron deposition and characterization of ZnS films for application in solar cells. Crystal Research and Technology, 2011, 46, 881-884.	1.3	4
90	Unconventional magnetic ferroelectricity in the quadruple perovskite $\text{NaMn}_7\text{O}_{12}$ . Physical Review B, 2020, 102, .	3.2	4

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91	CORRELATION BETWEEN LOCAL OXYGEN DISORDER AND ELECTRONIC PROPERTIES IN SUPERCONDUCTING RESR <sub>2</sub> Cu <sub>3</sub> O <sub>6+X</sub> (RE = Y, YB). International Journal of Modern Physics B, 2003, 17, 873-878.	2.0	3
92	<i>In Situ</i> Oxidation of Superconducting YBCO Films by a Supersonic $\text{O}_2$ Beam. IEEE Transactions on Applied Superconductivity, 2007, 17, 3286-3289.	1.7	3
93	A comprehensive study of the magnetic properties of the pyroxenes series $\text{CaMgSi}_2\text{O}_6$ – $\text{Co}_2\text{Si}_2\text{O}_6$ as a function of Co content. Journal of Physics Condensed Matter, 2018, 30, 285801.	1.8	3
94	High Pressure Induced Insulator-to-Semimetal Transition through Intersite Charge Transfer in NaMn <sub>7</sub> O <sub>12</sub> . Crystals, 2018, 8, 81.	2.2	3
95	Growth Striations in GaAs as Revealed by DSL Photoetching. Materials Science Forum, 1996, 203, 13-18.	0.3	2
96	Growth of semi-insulating InP with uniform axial Fe doping by a double-crucible LEC technique. Journal of Crystal Growth, 1997, 179, 57-66.	1.5	2
97	A Study of Convection, Striations and Interface Shape in InP Crystals Grown by the Double-Crucible LEC Technique. Crystal Research and Technology, 1997, 32, 1085-1093.	1.3	2
98	HIGH PRESSURE SYNTHESIS AND CHARACTERIZATION OF YSr <sub>2</sub> Cu <sub>3</sub> O <sub>w</sub> . International Journal of Modern Physics B, 2000, 14, 2658-2663.	2.0	2
99	CHEMICAL TAILORING OF ELECTRONIC DOPING IN YSr <sub>2</sub> Cu <sub>3</sub> O <sub>7±δ</sub> SUPERCONDUCTOR. International Journal of Modern Physics B, 2003, 17, 685-689.	2.0	2
100	Dependence of the structural and physical properties of Ru-1212 compound on the thermal treatment and oxygen content. Physica C: Superconductivity and Its Applications, 2004, 408-410, 187-188.	1.2	2
101	Al <sub>2</sub> O <sub>3</sub> Coating as Passivation Layer for CZT-based Detectors. , 2018, , .		2
102	CIGS-Based Flexible Solar Cells. , 2019, , 365-382.		2
103	Pressure-induced structural phase transition and suppression of Jahn-Teller distortion in the quadruple perovskite structure. Physical Review Materials, 2021, 5, .	2.4	2
104	Ultrashort pulse laser scribing of CIGS-based thin film solar cells. , 2020, , .		2
105	Partial characterization of Vitis vinifera grapes var. Ancellotta. LWT - Food Science and Technology, 1995, 28, 635-637.	5.2	1
106	P–T phase diagram of NaMn <sub>7</sub> O <sub>12</sub> , a double manganese perovskite-like oxide. Journal of Crystal Growth, 2005, 275, e877-e880.	1.5	1
107	Multi-chamber deposition system for continuous production of YBCO coated conductors by thermal co-evaporation. Journal of Physics: Conference Series, 2006, 43, 130-133.	0.4	1
108	Magnetism of pure and electron-doped as seen from. Physica B: Condensed Matter, 2006, 374-375, 44-46.	2.7	1

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109	Progress in the Continuous Deposition of YBCO Coated Conductors by Thermal Co-Evaporation. <i>Advances in Science and Technology</i> , 2006, 47, 17-24.	0.2	1
110	CuSbSe <sub>2</sub> Thin Films Deposited from Aqueous Solution by Electrodeposition in One Step. , 2019, , .		1
111	First detection of low field microwave absorption in the disordered multiferroic double perovskite BiFe <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>3</sub> . <i>Materials Research Express</i> , 2021, 8, 066101.	1.6	1
112	Pressure Effects on Structural and Electronic Properties of Superconductors. , 2004, , 429-446.		1
113	Eu Atomic Motion in EuSr <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> and EuBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> : A Comparative Mössbauer Study. <i>Journal of Superconductivity and Novel Magnetism</i> , 2004, 17, 409-415.	0.5	0
114	P-T Phase Diagram and Single Crystal Structural Refinement of NaMn <sub>7</sub> O <sub>12</sub> . <i>ChemInform</i> , 2005, 36, no.	0.0	0
115	Crystal Growth and Structural Refinement of NaMn <sub>7</sub> O <sub>12</sub> . <i>ChemInform</i> , 2006, 37, no.	0.0	0
116	Pulsed electron deposition (PED) of single buffer layer for "low-cost" YBCO coated conductors. <i>Journal of Physics: Conference Series</i> , 2008, 97, 012197.	0.4	0
117	Synthesis and Characterization of New Superconductors Materials. <i>Crystals</i> , 2020, 10, 649.	2.2	0
118	Laser scribing of Sb <sub>2</sub> Se <sub>3</sub> thin-film solar cells. , 2021, , .		0
119	Direct observation of Jahn-Teller critical dynamics at a charge-order Verwey transition. <i>Physical Review B</i> , 2021, 104, .	3.2	0