

Miguel Avalos-Borja

List of Publications by Year in descending order

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126
papers

3,745
citations

147801

31
h-index

138484

58
g-index

129
all docs

129
docs citations

129
times ranked

5085
citing authors

#	ARTICLE	IF	CITATIONS
1	Improvement in the hydrodesulfurization of dibenzothiophene over supported NiMoW catalysts. Reaction Kinetics, Mechanisms and Catalysis, 2021, 132, 317-330.	1.7	4
2	Rhenium borides (Re ₃ B and ReB ₂) mechanosynthesis and their use as a catalyst for H ₂ production from biomass pyrolysis. Materials Research Bulletin, 2021, 137, 111180.	5.2	2
3	Controlled modification of sodium montmorillonite clay by a planetary ball-mill as a versatile tool to tune its properties. Advanced Powder Technology, 2021, 32, 591-599.	4.1	4
4	Interaction of silver nanoparticles with the aquatic fern Azolla filiculoides: root structure, particle distribution, and silver accumulation. Journal of Nanoparticle Research, 2021, 23, 1.	1.9	3
5	Solvent-free oxidation of 1-phenylethanol catalysed by gold nanoparticles supported on carbon powder materials. Catalysis Today, 2020, 357, 22-31.	4.4	7
6	Mechanosynthesis of metastable cubic $\hat{\Gamma}$ -Ta ₁ ~N. Ceramics International, 2020, 46, 23049-23058.	4.8	4
7	Elastic and thermal properties of W ₇ Re ₁₃ B and synthesis of a new ternary phase W _{1.3} Re _{2.7} B ₂ . Solid State Sciences, 2020, 105, 106211.	3.2	1
8	Effect of ball to powder ratio on the mechanosynthesis of Re ₂ C and its compressibility. Journal of Alloys and Compounds, 2019, 810, 151867.	5.5	11
9	Degradation of rhenium carbide obtained by mechanochemical synthesis at oxygen and moisture environmental conditions. Materials Chemistry and Physics, 2019, 229, 15-21.	4.0	4
10	Mechanism to H ₂ production on rhenium carbide from pyrolysis of coconut shell. International Journal of Hydrogen Energy, 2019, 44, 2784-2796.	7.1	14
11	Chemical stability of superhard rhenium diboride at oxygen and moisture ambient environmental conditions prepared by mechanical milling. Journal of the American Ceramic Society, 2018, 101, 3148-3155.	3.8	9
12	Coexistence of two-photon absorption and saturable absorption in ion-implanted platinum nanoparticles in silica plates. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 1295.	2.1	16
13	Dual function of EDTA with silver nanoparticles for root canal treatment—A novel modification. PLoS ONE, 2018, 13, e0190866.	2.5	25
14	Nanoscale influence on photoluminescence and third order nonlinear susceptibility exhibited by ion-implanted Pt nanoparticles in silica. Methods and Applications in Fluorescence, 2017, 5, 025001.	2.3	10
15	Arsenic contamination in irrigation water, agricultural soil and maize crop from an abandoned smelter site in Matehuala, Mexico. Journal of Hazardous Materials, 2017, 339, 330-339.	12.4	63
16	SĂNTESIS DE ARSENIATOS DE CALCIO (GUERINITA, HAIDINGERITA Y FARMACOLITA) MORFOLĂ“GICAMENTE SIMILARES A LOS ENCONTRADOS EN SUELOS CONTAMINADOS. Revista Internacional De Contaminacion Ambiental, 2017, 33, 153-163.	0.4	3
17	From photoluminescence emissions to plasmonic properties in platinum nanoparticles embedded in silica by ion implantation. Journal of Luminescence, 2016, 179, 8-15.	3.1	11
18	Platinum nanoclusters in silica: Photoluminescent properties and their application for enhancing the emission of silicon nanocrystals in an integrated configuration. Journal of Applied Physics, 2016, 120, .	2.5	6

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19	Termination of hollow core nanopipes in GaN by an AlN interlayer. <i>Journal of Crystal Growth</i> , 2016, 455, 43-48.	1.5	5
20	Tuning emission in violet, blue, green and red in cubic GaN/InGaN/GaN quantum wells. <i>Journal of Crystal Growth</i> , 2016, 435, 110-113.	1.5	10
21	Mechanosynthesis of rhenium carbide at ambient pressure and temperature. <i>International Journal of Refractory Metals and Hard Materials</i> , 2016, 55, 11-15.	3.8	20
22	Redox reaction of nitric oxide and carbon monoxide over Fe ₂ O ₃ and Co ₃ O ₄ phases. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2016, 117, 593-604.	1.7	5
23	Controllable Biosynthesis of Small Silver Nanoparticles Using Fungal Extract. <i>Journal of Biomaterials and Nanobiotechnology</i> , 2016, 07, 118-125.	0.5	32
24	Reduction of nitric oxide by carbon monoxide over NiO, CuO, and ZnO catalysts. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2015, 114, 597-609.	1.7	5
25	MoS ₂ catalysts derived from n-methylenediammonium thiomolybdates during HDS of DBT. <i>Catalysis Today</i> , 2015, 250, 66-71.	4.4	7
26	Gold supported on metal oxides for volatile organic compounds total oxidation. <i>Catalysis Today</i> , 2015, 244, 103-114.	4.4	99
27	Ultrastructural Analysis of <i>Candida albicans</i> When Exposed to Silver Nanoparticles. <i>PLoS ONE</i> , 2014, 9, e108876.	2.5	127
28	Enhanced refrigerant capacity in two-phase nanocrystalline/amorphous NdPrFe ₁₇ melt-spun ribbons. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	39
29	Biogenic silver nanoparticles on carbonaceous material from sewage sludge for degradation of methylene blue in aqueous solution. <i>International Journal of Environmental Science and Technology</i> , 2014, 11, 977-986.	3.5	17
30	Polyamide-6: The effects on mechanical and physicochemical properties by electron beam irradiation at different temperatures. <i>Radiation Physics and Chemistry</i> , 2014, 97, 165-171.	2.8	24
31	Biosynthesis of lead nanoparticles by the aquatic water fern, <i>Salvinia minima</i> Baker, when exposed to high lead concentration. <i>Colloids and Surfaces B: Biointerfaces</i> , 2014, 114, 277-283.	5.0	10
32	Identification of diagenetic calcium arsenates using synchrotron-based micro X-ray diffraction. <i>Arsenic in the Environment Proceedings</i> , 2014, , 199-200.	0.0	0
33	Template-free synthesis of CoMoO ₄ rods and their characterization. <i>Materials Research Bulletin</i> , 2013, 48, 4614-4617.	5.2	14
34	Biosynthesis and microscopic study of metallic nanoparticles. <i>Micron</i> , 2013, 54-55, 1-27.	2.2	99
35	Gold nanoparticles supported on carbon materials for cyclohexane oxidation with hydrogen peroxide. <i>Applied Catalysis A: General</i> , 2013, 467, 279-290.	4.3	93
36	Oxygen K-edge electron energy loss spectra of hydrous and anhydrous compounds. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 485401.	1.8	10

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37	Arsenic mobility controlled by solid calcium arsenates: A case study in Mexico showcasing a potentially widespread environmental problem. <i>Environmental Pollution</i> , 2013, 176, 114-122.	7.5	81
38	Chemical Modification of Carbon Nanofibers with Plasma of Acrylic Acid. <i>Plasma Processes and Polymers</i> , 2013, 10, 627-633.	3.0	15
39	SERS Properties of Different Sized and Shaped Gold Nanoparticles Biosynthesized under Different Environmental Conditions by <i>Neurospora crassa</i> Extract. <i>PLoS ONE</i> , 2013, 8, e77486.	2.5	74
40	Carbenoid Etherifications Catalyzed by Cu^{I} ; Silver Nanoparticles and Iron-Copper Nanoparticles. <i>Letters in Organic Chemistry</i> , 2012, 9, 2-6.	0.5	5
41	Effect of Phosphate on the Particle Size of Ferric Oxyhydroxides Anchored onto Activated Carbon: As(V) Removal from Water. <i>Environmental Science & Technology</i> , 2012, 46, 9577-9583.	10.0	58
42	Comparative Activity of Ni^{II} and Co^{II} Sulfides Using Transition Metal Oxides as Precursors in HDS Reaction of DBT. <i>Catalysis Letters</i> , 2012, 142, 1082-1088.	2.6	8
43	Grafting of styrene and 2-vinylnaphthalene onto silicone rubber to improve radiation resistance. <i>Polymer Degradation and Stability</i> , 2012, 97, 1495-1503.	5.8	24
44	Production of Platinum Nanoparticles and Nanoaggregates Using <i>Neurospora crassa</i> . <i>Journal of Microbiology and Biotechnology</i> , 2012, 22, 1000-1004.	2.1	104
45	In situ observation of the reaction of scandium and carbon by neutron diffraction. <i>Journal of Alloys and Compounds</i> , 2011, 509, 1-5.	5.5	20
46	Molecular Assembly of Multi-Wall Carbon Nanotubes with Amino Crown Ether: Synthesis and Characterization. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 5539-5545.	0.9	6
47	Observation and formation mechanism of individual graphene foils inside multi-walled carbon nanotubes. <i>Materials Research Bulletin</i> , 2011, 46, 658-661.	5.2	0
48	Pressure dependence of the lattice dynamics of diasporite, Al_2SiO_5 , from Raman spectroscopy and density functional perturbation theory. <i>Physics and Chemistry of Minerals</i> , 2011, 38, 693-700.	0.8	15
49	Gold supported on metal oxides for carbon monoxide oxidation. <i>Nano Research</i> , 2011, 4, 180-193.	10.4	76
50	Decomposition of $\text{W}(\text{CO})_6$ at high pressures and temperatures. <i>Journal of Applied Crystallography</i> , 2011, 44, 820-830.	4.5	2
51	Poly[ethylene glycol (acrylic acid)]-based nanocomposites: Thermal and mechanical properties and their structural characteristics studied by Raman spectroscopy. <i>Polymer Composites</i> , 2011, 32, 1181-1189.	4.6	7
52	Biosynthesis of silver, gold and bimetallic nanoparticles using the filamentous fungus <i>Neurospora crassa</i> . <i>Colloids and Surfaces B: Biointerfaces</i> , 2011, 83, 42-48.	5.0	377
53	Low-temperature structural phase transition in deuterated and protonated lithium acetate dihydrate. <i>Journal of Chemical Thermodynamics</i> , 2010, 42, 957-961.	2.0	3
54	Formation of scandium carbides and scandium oxycarbide from the elements at high-(P, T) conditions. <i>Journal of Solid State Chemistry</i> , 2010, 183, 975-983.	2.9	15

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55	Characterization of interpenetrating networks of acrylic acid (AAc) and N-isopropylacrylamide (NIPAAm) synthesized by ionizing radiation. <i>Radiation Physics and Chemistry</i> , 2009, 78, 549-552.	2.8	19
56	Alternative bio-reduction synthesis method for the preparation of Au(AgAu)/SiO ₂ –Al ₂ O ₃ catalysts: Oxidation and hydrogenation of CO. <i>Applied Catalysis B: Environmental</i> , 2009, 90, 64-73.	20.2	46
57	PZT ferroelectric ceramics obtained by sol–gel method using 2-methoxyethanol route for pyroelectric sensors. <i>Materials Research Innovations</i> , 2009, 13, 375-378.	2.3	3
58	Synthesis, Characterization and Catalytic Activity in the Hydrogenation of Cyclohexene with Molybdenum Carbide. <i>Catalysis Letters</i> , 2008, 120, 137-142.	2.6	20
59	Polymer nanocomposites containing carbon nanotubes and miscible polymer blends based on poly[ethylene–co-(i>acrylic acid)]. <i>Journal of Applied Polymer Science</i> , 2008, 108, 1462-1472.	2.6	10
60	Synthesis of silver nanoparticles in a polyvinylpyrrolidone (PVP) paste, and their optical properties in a film and in ethylene glycol. <i>Materials Research Bulletin</i> , 2008, 43, 90-96.	5.2	101
61	Reaction of rhenium and carbon at high pressures and temperatures. <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 2008, 223, 492-501.	0.8	40
62	Structural properties of Al ₂ O ₃ –La ₂ O ₃ binary oxides prepared by sol–gel. <i>Materials Research Bulletin</i> , 2007, 42, 640-648.	5.2	51
63	Synthesis, characterization and cyclohexene hydrogenation activity of high surface area molybdenum disulfide catalysts. <i>Catalysis Letters</i> , 2007, 113, 170-175.	2.6	18
64	Assessment of growth of silver nanoparticles synthesized from an ethylene glycol–silver nitrate–polyvinylpyrrolidone solution. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2005, 25, 438-448.	2.7	92
65	Classical theoretical characterization of the surface plasmon absorption band for silver spherical nanoparticles suspended in water and ethylene glycol. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2005, 27, 104-112.	2.7	172
66	Complementary methods for cluster size distribution measurements: supported platinum nanoclusters in methane reforming catalysts. <i>Journal of Molecular Catalysis A</i> , 2005, 228, 299-307.	4.8	43
67	Surface characterization of binary grafting of AAc/NIPAAm onto poly(tetrafluoroethylene) (PTFE). <i>Nuclear Instruments & Methods in Physics Research B</i> , 2005, 234, 471-476.	1.4	39
68	Radiation compatibilization of polyamide-6/polypropylene blends, enhanced by the presence of compatibilizing agent. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2005, 236, 295-300.	1.4	22
69	Elastic properties of tantalum carbide (TaC). <i>Solid State Communications</i> , 2005, 134, 245-250.	1.9	101
70	Surface Properties of Ni~Pt/SiO ₂ Catalysts for N ₂ O Decomposition and Reduction by H ₂ . <i>Journal of Physical Chemistry B</i> , 2005, 109, 2371-2376.	2.6	51
71	Correlation functions between specific volume and stoichiometry for transition metal nitrides. <i>Journal of Alloys and Compounds</i> , 2005, 389, 42-46.	5.5	10
72	High-pressure and high-temperature powder diffraction on molybdenum diphosphide, MoP ₂ . <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 2004, 219, 309-313.	0.8	6

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73	Electron and proton irradiation of poly(vinylidene fluoride): characterization by electron paramagnetic resonance. <i>Polymer Degradation and Stability</i> , 2003, 81, 75-79.	5.8	28
74	On the nature of the silver phases of Ag/Al ₂ O ₃ catalysts for reactions involving nitric oxide. <i>Applied Catalysis B: Environmental</i> , 2002, 36, 287-297.	20.2	162
75	Influence of pH of the impregnation solution on the phosphorus promotion in W/Al ₂ O ₃ hydrotreating catalysts. <i>Applied Catalysis A: General</i> , 2002, 224, 97-110.	4.3	39
76	Microstructural characterization of bimetallic Ni-Pt catalysts supported on SiO ₂ . <i>Applied Surface Science</i> , 2002, 189, 7-17.	6.1	24
77	REDUCTION OF NO BY CO OVER NiWO ₄ , NiO, AND WO ₃ CATALYSTS. <i>Reaction Kinetics and Catalysis Letters</i> , 2002, 76, 131-140.	0.6	31
78	Synthesis and characterization of NiWO ₄ crystals. <i>Materials Letters</i> , 2001, 47, 314-318.	2.6	51
79	Interface analysis of CVD diamond on TiN surfaces. <i>Applied Surface Science</i> , 2000, 158, 236-245.	6.1	10
80	Structural and catalytic properties of Pd/Al ₂ O ₃ -La ₂ O ₃ catalysts. <i>Catalysis Today</i> , 2000, 55, 301-309.	4.4	18
81	Changes in poly-vinylidene fluoride produced by electron irradiation. <i>Radiation Physics and Chemistry</i> , 1999, 54, 637-641.	2.8	46
82	Study of different forms of carbon by analytical electron microscopy. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1999, 104, 61-66.	1.7	21
83	EELS characterization of TiN grown by the DC sputtering technique. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1999, 105, 129-133.	1.7	10
84	Bismuth-Molybdenum-Oxide Catalyst: a High-Resolution Transmission Electron Microscopy Study. <i>Journal of Materials Science Letters</i> , 1999, 18, 555-557.	0.5	0
85	Influence of preparation on the structure and CO conversion of Bi ₂ MoO ₆ catalysts. <i>Reaction Kinetics and Catalysis Letters</i> , 1999, 67, 205-211.	0.6	4
86	Structural properties of Pd catalysts supported on Al ₂ O ₃ -La ₂ O ₃ prepared by sol-gel method. <i>Applied Catalysis B: Environmental</i> , 1998, 17, 221-231.	20.2	45
87	Crosslinking of recycled polyethylene by gamma and electron beam irradiation. <i>Radiation Physics and Chemistry</i> , 1998, 52, 171-176.	2.8	364
88	The shell microstructure and chronology of the abalone <i>Haliotis corrugata</i> . <i>Molluscan Research</i> , 1997, 18, 197-207.	0.7	8
89	PEELS and EXELFS characterization of diamond films grown by the HF-CVD technique on non-scratched Si substrates. <i>Thin Solid Films</i> , 1997, 304, 45-47.	1.8	5
90	TEM and PEELS characterization of diamond films grown on Si substrates. <i>Diamond and Related Materials</i> , 1996, 5, 1249-1253.	3.9	12

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91	Phosphorus promoted WS ₂ /Al ₂ O ₃ catalysts studied by transmission electron microscopy. <i>Catalysis Letters</i> , 1996, 42, 119-126.	2.6	3
92	Microcrystals formed in proton bombarded poly(vinyl chloride) films. <i>Radiation Physics and Chemistry</i> , 1996, 48, 727-730.	2.8	4
93	Toward a chronology of <i>Haliotis fulgens</i> , with a review of abalone shell microstructure. <i>Marine and Freshwater Research</i> , 1995, 46, 607.	1.3	22
94	Electronic Irradiation Effect on Bi-Mo-O Catalysts Observed in a Hrtem Study. <i>Materials Research Society Symposia Proceedings</i> , 1995, 404, 195.	0.1	1
95	Effect of silver in Y ₁ Ba ₂ Cu ₃ O _{7-x} samples. <i>Journal of Materials Science</i> , 1994, 29, 2713-2718.	3.7	5
96	Influence of phosphorus on the structure and the hydrodesulphurization and hydrodenitrogenation activity of W/Al ₂ O ₃ catalysts. <i>Applied Catalysis A: General</i> , 1994, 120, 147-162.	4.3	40
97	Comparison of irradiation effects of electrons and gamma rays on PVC samples. <i>Radiation Physics and Chemistry</i> , 1994, 44, 579-582.	2.8	10
98	High resolution electron microscopy characterization of sulfided palladium particles on amorphous SiO ₂ . <i>Catalysis Letters</i> , 1994, 28, 351-360.	2.6	3
99	Diamond films grown on p-type microcrystalline-SiC:H/crystalline-Si substrates. <i>Diamond and Related Materials</i> , 1994, 3, 177-181.	3.9	9
100	Co Oxidation by Bi ₂ MoO ₆ -Î³(H) Catalyst. <i>Materials Research Society Symposia Proceedings</i> , 1994, 368, 265.	0.1	3
101	Structure and catalytic activity characterization of bismuth molybdate catalysts. <i>Catalysis Letters</i> , 1993, 18, 273-281.	2.6	21
102	CO oxidation of Bi ₂ MoO ₆ catalysts. <i>Journal of Physics Condensed Matter</i> , 1993, 5, A217-A218.	1.8	6
103	HRTEM and STM of Pt particles on graphite. <i>Journal of Physics Condensed Matter</i> , 1993, 5, A413-A416.	1.8	3
104	Nucleation and growth of diamond films on mu c-SiC/x-Si by hot-filament CVD. <i>Journal of Physics Condensed Matter</i> , 1993, 5, A305-A306.	1.8	4
105	Title is missing!. <i>Journal of Physics Condensed Matter</i> , 1993, 5, A219-A220.	1.8	12
106	Microcrystalline particles formed in highly irradiated PVC. <i>Journal of Physics Condensed Matter</i> , 1993, 5, A325-A326.	1.8	0
107	High Resolution Electron Microscopy Characterization of the Poorly Crystalline Structure of Molybdenum Disulfide-Based Catalysts. <i>Studies in Surface Science and Catalysis</i> , 1993, , 611-620.	1.5	1
108	Electron Microscopy of Metallic Nano Particles Using High- and Medium-Resolution Techniques. <i>Catalysis Reviews - Science and Engineering</i> , 1992, 34, 55-127.	12.9	38

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109	Characterization of highly irradiated poly(vinyl chloride). International Journal of Radiation Applications and Instrumentation Nuclear Tracks and Radiation Measurements, 1992, 39, 397-400.	0.0	2
110	Mixed impregnated thiosalt decomposition catalysts characterized by X-ray diffraction. Catalysis Letters, 1991, 9, 387-393.	2.6	3
111	Catalytic activity of hydrodesulfurization catalysts prepared by two methods. Catalysis Letters, 1989, 3, 227-233.	2.6	4
112	More on the melting of Lennard-Jones clusters. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1989, 12, 181-183.	1.0	2
113	Thermal decay of Lennard-Jones clusters. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1989, 12, 185-187.	1.0	3
114	Image processing enhancement of high-resolution TEM micrographs of nanometer-size metal particles. Ultramicroscopy, 1989, 30, 405-416.	1.9	16
115	Homogeneous sulfide precipitation catalysts characterized by X-ray diffraction. Materials Letters, 1989, 8, 492-494.	2.6	4
116	On the structure of small palladium particles. Scripta Metallurgica, 1989, 23, 1555-1558.	1.2	8
117	More on the melting of Lennard-Jones clusters. , 1989, , 181-183.		0
118	Thermal decay of Lennard-Jones clusters. , 1989, , 185-187.		0
119	Melting and freezing of Lennard-Jones clusters on a surface. Physical Review B, 1987, 36, 8447-8455.	3.2	49
120	On the Image-Contrast Characteristics of Strains, Surface Rugosity, and Defects in Small Metallic Particles. Journal of Electron Microscopy Technique, 1987, 6, 367-376.	1.1	1
121	Analysis of stacking faults in small metallic particles. Journal of Crystal Growth, 1986, 74, 345-352.	1.5	7
122	On the morphology of small particles under weak beam conditions. Journal of Crystal Growth, 1986, 78, 563-566.	1.5	2
123	Structure and morphology characterization of nanometer-size metal aggregates by electron scattering patterns. Langmuir, 1985, 1, 342-347.	3.5	12
124	On the visibility of small metallic particles on crystalline substrates. Ultramicroscopy, 1982, 10, 211-215.	1.9	5
125	A reinvestigation of the $\hat{\Gamma}^3$ phase in Cu-Al alloys: a new long-period superstructure. Materials Science and Engineering, 1980, 46, 167-173.	0.1	15
126	Inversion domains and the mechanical properties of Gamma-2 (Cu-Al) intermetallic compound. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1979, 10, 385-387.	1.4	2