

# Tahar Laoui

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6954241/publications.pdf>

Version: 2024-02-01

125  
papers

9,786  
citations

81839

39  
h-index

36008

97  
g-index

129  
all docs

129  
docs citations

129  
times ranked

11711  
citing authors

#	ARTICLE	IF	CITATIONS
1	Heavy metal removal from aqueous solution by advanced carbon nanotubes: Critical review of adsorption applications. <i>Separation and Purification Technology</i> , 2016, 157, 141-161.	3.9	977
2	Selective Ionic Transport through Tunable Subnanometer Pores in Single-Layer Graphene Membranes. <i>Nano Letters</i> , 2014, 14, 1234-1241.	4.5	687
3	Lasers and materials in selective laser sintering. <i>Assembly Automation</i> , 2003, 23, 357-371.	1.0	618
4	Rapid manufacturing of metal components by laser forming. <i>International Journal of Machine Tools and Manufacture</i> , 2006, 46, 1459-1468.	6.2	602
5	Microstructure and interface characteristics of B4C, SiC and Al2O3 reinforced Al matrix composites: a comparative study. <i>Journal of Materials Processing Technology</i> , 2003, 142, 738-743.	3.1	568
6	Nanostructured materials for water desalination. <i>Nanotechnology</i> , 2011, 22, 292001.	1.3	543
7	Carbon capture by physical adsorption: Materials, experimental investigations and numerical modeling and simulations – A review. <i>Applied Energy</i> , 2016, 161, 225-255.	5.1	498
8	Absorptance of powder materials suitable for laser sintering. <i>Rapid Prototyping Journal</i> , 2000, 6, 155-161.	1.6	418
9	Selective Molecular Transport through Intrinsic Defects in a Single Layer of CVD Graphene. <i>ACS Nano</i> , 2012, 6, 10130-10138.	7.3	331
10	Nanofiltration across Defect-Sealed Nanoporous Monolayer Graphene. <i>Nano Letters</i> , 2015, 15, 3254-3260.	4.5	272
11	Spark Plasma Sintering of Metals and Metal Matrix Nanocomposites: A Review. <i>Journal of Nanomaterials</i> , 2012, 2012, 1-13.	1.5	266
12	Balling processes during selective laser treatment of powders. <i>Rapid Prototyping Journal</i> , 2004, 10, 78-87.	1.6	233
13	Direct Selective Laser Sintering of Hard Metal Powders: Experimental Study and Simulation. <i>International Journal of Advanced Manufacturing Technology</i> , 2002, 19, 351-357.	1.5	215
14	Adsorptive removal of cadmium(II) ions from liquid phase using acid modified carbon-based adsorbents. <i>Journal of Molecular Liquids</i> , 2015, 204, 255-263.	2.3	202
15	Mechanisms of selective laser sintering and heat transfer in Ti powder. <i>Rapid Prototyping Journal</i> , 2003, 9, 314-326.	1.6	168
16	Contact thermal conductivity of a powder bed in selective laser sintering. <i>International Journal of Heat and Mass Transfer</i> , 2003, 46, 1103-1109.	2.5	164
17	Nanofluidic transport governed by the liquid/vapour interface. <i>Nature Nanotechnology</i> , 2014, 9, 317-323.	15.6	159
18	Experimental and theoretical investigations on water desalination using direct contact membrane distillation. <i>Desalination</i> , 2017, 404, 22-34.	4.0	156

#	ARTICLE	IF	CITATIONS
19	Effect of acid modification on adsorption of hexavalent chromium (Cr(VI)) from aqueous solution by activated carbon and carbon nanotubes. <i>Desalination and Water Treatment</i> , 2016, 57, 7232-7244.	1.0	150
20	Preparation and properties of nanocomposite polysulfone/multi-walled carbon nanotubes membranes for desalination. <i>Desalination</i> , 2015, 367, 134-144.	4.0	122
21	Influence of Ti addition on wear properties of Al-Si eutectic alloys. <i>Wear</i> , 2001, 249, 656-662.	1.5	100
22	Water and Solute Transport Governed by Tunable Pore Size Distributions in Nanoporous Graphene Membranes. <i>ACS Nano</i> , 2017, 11, 10042-10052.	7.3	96
23	Fouling control in reverse osmosis for water desalination & reuse: Current practices & emerging environment-friendly technologies. <i>Science of the Total Environment</i> , 2021, 765, 142721.	3.9	96
24	Sorption of phenol from waters on activated carbon impregnated with iron oxide, aluminum oxide and titanium oxide. <i>Journal of Molecular Liquids</i> , 2016, 213, 351-359.	2.3	89
25	Enhanced adsorption of phenols from liquids by aluminum oxide/carbon nanotubes: Comprehensive study from synthesis to surface properties. <i>Journal of Molecular Liquids</i> , 2015, 206, 176-182.	2.3	78
26	Fabrication and antifouling behaviour of a carbon nanotube membrane. <i>Materials and Design</i> , 2016, 89, 549-558.	3.3	77
27	Enhancement of anticorrosion property of 304 stainless steel using silane coatings. <i>Applied Surface Science</i> , 2018, 440, 1286-1297.	3.1	69
28	Effects of annealing on copper substrate surface morphology and graphene growth by chemical vapor deposition. <i>Carbon</i> , 2015, 94, 369-377.	5.4	67
29	Novel anti-microbial membrane for desalination pretreatment: A silver nanoparticle-doped carbon nanotube membrane. <i>Desalination</i> , 2015, 376, 82-93.	4.0	67
30	Rapid prototyping and manufacturing for tissue engineering scaffolds. <i>International Journal of Computer Applications in Technology</i> , 2009, 36, 1.	0.3	60
31	Surface modification of carbon nanotubes with copper oxide nanoparticles for heat transfer enhancement of nanofluids. <i>RSC Advances</i> , 2018, 8, 1791-1802.	1.7	57
32	Selective laser sintering of single- and two-component metal powders. <i>Rapid Prototyping Journal</i> , 2003, 9, 68-78.	1.6	56
33	Effect of Hydrophilic Defects on Water Transport in MFI Zeolites. <i>Langmuir</i> , 2014, 30, 6446-6453.	1.6	53
34	GP zones and precipitate morphology in aged Al-Mg alloys. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1996, 73, 1733-1740.	0.7	50
35	A Novel PAN-GO-SiO <sub>2</sub> Hybrid Membrane for Separating Oil and Water from Emulsified Mixture. <i>Materials</i> , 2019, 12, 212.	1.3	46
36	Monolayer graphene transfer onto polypropylene and polyvinylidene difluoride microfiltration membranes for water desalination. <i>Desalination</i> , 2016, 388, 29-37.	4.0	42

#	ARTICLE	IF	CITATIONS
37	Effect of PEG functionalized carbon nanotubes on the enhancement of thermal and physical properties of nanofluids. <i>Experimental Thermal and Fluid Science</i> , 2017, 84, 231-241.	1.5	42
38	Investigation of the structural and mechanical properties of micro-/nano-sized Al <sub>2</sub> O <sub>3</sub> and cBN composites prepared by spark plasma sintering. <i>Ceramics International</i> , 2017, 43, 10645-10653.	2.3	42
39	Analytical electron microscopy of the core/rim structure in titanium carbonitride cermets. <i>International Journal of Refractory Metals and Hard Materials</i> , 1992, 11, 207-212.	1.7	40
40	Properties of Titanium Dental Implant Models Made by Laser Processing. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2006, 220, 857-863.	1.1	36
41	Effect of milling temperature on the synthesis and consolidation of nanocomposite WC-Co powders. <i>International Journal of Refractory Metals and Hard Materials</i> , 2009, 27, 66-73.	1.7	35
42	Adsorption of phenol on aluminum oxide impregnated fly ash. <i>Desalination and Water Treatment</i> , 2016, 57, 6801-6808.	1.0	35
43	Cadmium Removal from Contaminated Water Using Polyelectrolyte-Coated Industrial Waste Fly Ash. <i>Bioinorganic Chemistry and Applications</i> , 2017, 2017, 1-13.	1.8	33
44	Synthesis and characterization of alumina-CNT membrane for cadmium removal from aqueous solution. <i>Ceramics International</i> , 2018, 44, 17189-17198.	2.3	32
45	Chemical interaction between a sialon cutting tool and iron-based alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1994, 187, 177-182.	2.6	31
46	Synthesis, characterisation and mechanical properties of SiC reinforced Al based nanocomposites processed by MA and SPS. <i>Powder Metallurgy</i> , 2013, 56, 149-157.	0.9	31
47	The Synthesis of Nanostructured WC-Based Hardmetals Using Mechanical Alloying and Their Direct Consolidation. <i>Journal of Nanomaterials</i> , 2014, 2014, 1-16.	1.5	30
48	Finite Element Simulation of Multipass Welding: Full Three-Dimensional Versus Generalized Plane Strain or Axisymmetric Models. <i>Journal of Strain Analysis for Engineering Design</i> , 2005, 40, 587-597.	1.0	29
49	Fast Disinfection of <i>Escherichia coli</i> Bacteria Using Carbon Nanotubes Interaction with Microwave Radiation. <i>Bioinorganic Chemistry and Applications</i> , 2013, 2013, 1-9.	1.8	28
50	Novel Aluminum Oxide-Impregnated Carbon Nanotube Membrane for the Removal of Cadmium from Aqueous Solution. <i>Materials</i> , 2017, 10, 1144.	1.3	27
51	Development of an AI-based Rapid Manufacturing Advice System. <i>International Journal of Production Research</i> , 2010, 48, 2261-2278.	4.9	26
52	Fe-N-C Electrocatalysts for Oxygen Reduction Reaction Synthesized by Using Aniline Salt and Fe <sup>3+</sup> /H <sub>2</sub> O <sub>2</sub> Catalytic System. <i>Electrochimica Acta</i> , 2014, 146, 809-818.	2.6	26
53	Effect of Al metal precursor on the phase formation and mechanical properties of fine-grained SiAlON ceramics prepared by spark plasma sintering. <i>Journal of the European Ceramic Society</i> , 2017, 37, 1975-1983.	2.8	26
54	Development of graphene oxide-based membrane as a pretreatment for thermal seawater desalination. <i>Desalination</i> , 2019, 465, 13-24.	4.0	26

#	ARTICLE	IF	CITATIONS
55	Evaluation of micro- and nano-carbon-based adsorbents for the removal of phenol from aqueous solutions. <i>Toxicological and Environmental Chemistry</i> , 2015, 97, 1164-1179.	0.6	25
56	Effect of precursor size on the structure and mechanical properties of calcium-stabilized sialon/cubic boron nitride nanocomposites. <i>Journal of Alloys and Compounds</i> , 2017, 728, 836-843.	2.8	25
57	Effect of Ni content and Al <sub>2</sub> O <sub>3</sub> particle size on the thermal and mechanical properties of Al <sub>2</sub> O <sub>3</sub> /Ni composites prepared by spark plasma sintering. <i>International Journal of Refractory Metals and Hard Materials</i> , 2018, 76, 25-32.	1.7	25
58	Electrical conductivity of spark plasma sintered Al <sub>2</sub> O <sub>3</sub> -SiC and Al <sub>2</sub> O <sub>3</sub> -carbon nanotube nanocomposites. <i>Ceramics International</i> , 2020, 46, 16008-16019.	2.3	25
59	VC and Cr <sub>3</sub> C <sub>2</sub> doped WC-based nano-cermets prepared by MA and SPS. <i>Ceramics International</i> , 2014, 40, 11759-11765.	2.3	24
60	Toughening of X-sialon with Al <sub>2</sub> O <sub>3</sub> platelets. <i>Journal of the European Ceramic Society</i> , 1995, 15, 297-305.	2.8	23
61	Hydrophobic and optical characteristics of graphene and graphene oxide films transferred onto functionalized silica particles deposited glass surface. <i>Applied Surface Science</i> , 2018, 442, 213-223.	3.1	23
62	Processing of porous alumina substrate for multilayered ceramic filter. <i>Desalination and Water Treatment</i> , 2011, 35, 33-38.	1.0	21
63	Development of a single-phase Ca- $\delta$ -SiALON ceramic from nanosized precursors using spark plasma sintering. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 673, 243-249.	2.6	21
64	Tribological behaviour of alumina-based nanocomposites reinforced with uncoated and Ni-coated cubic boron nitride. <i>Journal of Materials Research and Technology</i> , 2019, 8, 5066-5079.	2.6	21
65	Mechanical and Thermal Properties of Styrene Butadiene Rubber - Functionalized Carbon Nanotubes Nanocomposites. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2013, 21, 89-101.	1.0	20
66	Framework water capacity and infiltration pressure of MFI zeolites. <i>Microporous and Mesoporous Materials</i> , 2014, 190, 84-91.	2.2	20
67	Fabrication of polysulfone nanocomposite membranes with silver-doped carbon nanotubes and their antifouling performance. <i>Journal of Applied Polymer Science</i> , 2017, 134, .	1.3	20
68	Synthesis and characterization of alkaline earth and rare earth doped sialon Ceramics by spark plasma sintering. <i>International Journal of Refractory Metals and Hard Materials</i> , 2021, 97, 105500.	1.7	20
69	Study of the impact of chemical etching on Cu surface morphology, graphene growth and transfer on SiO <sub>2</sub> /Si substrate. <i>Carbon</i> , 2017, 123, 402-414.	5.4	19
70	A Comparative Study of Raw and Metal Oxide Impregnated Carbon Nanotubes for the Adsorption of Hexavalent Chromium from Aqueous Solution. <i>Bioinorganic Chemistry and Applications</i> , 2017, 2017, 1-10.	1.8	19
71	Preparation and properties of X-sialon. <i>Journal of Materials Science</i> , 1995, 30, 4584-4590.	1.7	18
72	Effect of TiC addition on the microstructure and properties of Ti(C,N)-WC-Co-Ni cermet. <i>Journal of Materials Science Letters</i> , 1994, 13, 1530-1532.	0.5	17

#	ARTICLE	IF	CITATIONS
73	The Effect of Variable Binder Content and Sintering Temperature on the Mechanical Properties of WC-Co <sub>3</sub> /Cr <sub>2</sub> Nanocomposites. <i>Materials and Manufacturing Processes</i> , 2015, 30, 327-334.	2.7	17
74	Low-temperature spark plasma sintering of calcium stabilized alpha sialon using nano-size aluminum nitride precursor. <i>International Journal of Refractory Metals and Hard Materials</i> , 2018, 71, 301-306.	1.7	17
75	Tribological Characterization of Micron-/Nano-Sized WC-9%Co Cemented Carbides Prepared by Spark Plasma Sintering at Elevated Temperatures. <i>Materials</i> , 2019, 12, 920.	1.3	17
76	Effect of nano-size oxy-nitride starting precursors on spark plasma sintering of calcium sialons along the alpha/(alpha+beta) phase boundary. <i>Ceramics International</i> , 2019, 45, 9638-9645.	2.3	17
77	Microstructure and hardness behaviours of Ti-containing Al-Si alloys. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 2002, 82, 803-814.	0.7	16
78	A dynamic model of simulating stress distribution in the distal femur after total knee replacement. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2007, 221, 903-912.	1.0	15
79	Selective laser sintering and cladding of single-component metal powders. <i>Rapid Prototyping Journal</i> , 2004, 10, 88-97.	1.6	14
80	Bubble-induced damping in displacement-driven microfluidic flows. <i>Physical Review E</i> , 2012, 86, 026301.	0.8	14
81	Synthesis of hard and tough calcium stabilized $\alpha$ -sialon/SiC ceramic composites using nano-sized precursors and spark plasma sintering. <i>Journal of Alloys and Compounds</i> , 2018, 757, 200-208.	2.8	14
82	Graphene Oxide-Based Membranes for Water Purification Applications: Effect of Plasma Treatment on the Adhesion and Stability of the Synthesized Membranes. <i>Membranes</i> , 2020, 10, 292.	1.4	14
83	Toughening of sol-gel derived mullite matrix by Al <sub>2</sub> O <sub>3</sub> platelets. <i>Journal of Materials Science Letters</i> , 1994, 13, 1089-1091.	0.5	13
84	The influence of intergranular phases on the tribological performance of sialons. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1996, 207, 72-86.	2.6	12
85	Nonequilibrium behavior in the Al-Ge alloy system: Insights into the metastable phase diagram. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1991, 22, 2141-2152.	1.4	11
86	Age Hardening Behavior of Carbon Nanotube Reinforced Aluminum Nanocomposites. <i>Journal of Nano Research</i> , 2012, 21, 29-35.	0.8	11
87	Enhanced water transport and salt rejection through hydrophobic zeolite pores. <i>Nanotechnology</i> , 2017, 28, 505703.	1.3	11
88	Porous Al <sub>2</sub> O <sub>3</sub> -CNT Nanocomposite Membrane Produced by Spark Plasma Sintering with Tailored Microstructure and Properties for Water Treatment. <i>Nanomaterials</i> , 2020, 10, 845.	1.9	11
89	Mechanical and Thermal Evaluation of Aluminum Hybrid Nanocomposite Reinforced with Alumina and Graphene Oxide. <i>Nanomaterials</i> , 2021, 11, 1225.	1.9	11
90	Review: Brine Solution: Current Status, Future Management and Technology Development. <i>Sustainability</i> , 2022, 14, 6752.	1.6	11

#	ARTICLE	IF	CITATIONS
91	Synthesis and spark plasma sintering of Al-Mg-Zr alloys. Journal of Central South University, 2013, 20, 7-14.	1.2	10
92	Few-Layers Graphene Film and Copper Surface Morphology for Improved Corrosion Protection of Copper. Journal of Materials Engineering and Performance, 2019, 28, 5541-5550.	1.2	10
93	Development and Processing of SiAlON Nano-Ceramics by Spark Plasma Sintering. Advances in Science and Technology, 0, , .	0.2	9
94	Effect of graphene film on laser textured alumina surface characteristics. Ceramics International, 2017, 43, 2012-2021.	2.3	8
95	Synthesis of Graphene Based Membranes: Effect of Substrate Surface Properties on Monolayer Graphene Transfer. Materials, 2017, 10, 86.	1.3	8
96	Development of calcium stabilized nitrogen rich $\hat{\pm}$ -sialon ceramics along the $\text{Si}_3\text{N}_4:1/2\text{Ca}_3\text{N}_2:3\text{AlN}$ line using spark plasma sintering. Journal of Advanced Ceramics, 2020, 9, 606-616.	8.9	8
97	Tribological Behavior of Aluminum Hybrid Nanocomposites Reinforced with Alumina and Graphene Oxide. Materials, 2022, 15, 865.	1.3	8
98	Characterization of Si(111) crystals implanted with $\text{Sb}^+$ ions and annealed by rapid thermal processing. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2003, 102, 390-397.	1.7	7
99	Effect of secondary phase on sialon-steel chemical interaction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 183, L19-L21.	2.6	6
100	Different types of discontinuous precipitation in Cu-15 Wt% in alloy. Scripta Metallurgica Et Materialia, 1995, 32, 1453-1458.	1.0	6
101	In-situ aging microwave heating synthesis of LTA zeolite layer on mesoporous $\text{TiO}_2$ coated porous alumina support. Journal of Crystal Growth, 2015, 432, 123-128.	0.7	5
102	Enhancing the adsorptive capacity of carbon nanofibers by impregnation with ferric oxide for the removal of cadmium from aqueous solution. Journal of Water Process Engineering, 2021, 42, 102130.	2.6	5
103	Spark Plasma Sintering of Mixed and Milled WC-Co Micro-/Nano-Powders. Advanced Materials Research, 2011, 284-286, 537-543.	0.3	4
104	Thermal Behavior of Spark Plasma Sintered Alumina-Based Nanocomposites. Arabian Journal for Science and Engineering, 2019, 44, 6013-6028.	1.7	4
105	Wear Behavior of Spark Plasma Sintered Al2124 Aluminum Alloy Containing Carbon Nanotubes. Science of Advanced Materials, 2012, 4, 1166-1173.	0.1	4
106	Dispersion of Carbon Nanotubes in Alumina Using a Novel Mixing Technique and Spark Plasma Sintering of the Nanocomposites with Improved Fracture Toughness. Advances in Science and Technology, 0, , .	0.2	3
107	Monolayer Graphene Transfer onto Hydrophilic Substrates: A New Protocol Using Electrostatic Charging. Membranes, 2020, 10, 358.	1.4	3
108	Dental root implants produced by the combined selective laser sintering/melting of titanium powders. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2002, 216, 267-270.	0.7	3

#	ARTICLE	IF	CITATIONS
109	Study of Grain Boundary Phase in Silicon Nitride Materials by Raman Spectroscopy. Key Engineering Materials, 1994, 89-91, 495-500.	0.4	2
110	Manufacture of microporous ceramic layer by suspension sedimentation for filtration applications. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2013, 227, 1032-1038.	1.5	2
111	Evolution of Cu Surface Morphology and its Effect on Graphene Synthesized by Chemical Vapor Deposition. Advances in Science and Technology, 2014, 95, 17-22.	0.2	2
112	Preparation of graphene-coated anodic alumina substrates for selective molecular transport. Carbon Letters, 2020, 30, 23-33.	3.3	2
113	Metastable phase equilibria in faceted-nonfaceted systems. Scripta Metallurgica Et Materialia, 1994, 30, 1563-1567.	1.0	1
114	Bone osseointegration tests performed on titanium dental root implants made by laser processing. International Journal of Product Development, 2004, 1, 165.	0.2	1
115	Seeding of Porous Alumina Substrate with MFI Zeolite Nanocrystals using Spin-coating Technique. Procedia Engineering, 2012, 44, 1183-1184.	1.2	1
116	FE Predictions of Temperature Distributions in a Multipass Welded Piping Branch Junction. , 2004, , .		1
117	<title>Laser sintering of metal powders as a semisolid metallurgical process</title>. , 2004, , .		0
118	Transport Across Sub-Nanometer Zeolite Pores for Water Desalination. , 2010, , .		0
119	Exploring a Manufacturing Route to Produce WC-Based Micro-Cutting Tool With Nanostructured Material. , 2011, , .		0
120	Effect of Consolidation Mechanism on the Properties of Nanostructured WC-6, 9, 12 wt%Co Hardmetals. , 2011, , .		0
121	Synthesis of Zeolite A Crystals in the Presence of Crystal Growth Inhibitors by Microwave-Assisted Hydrothermal Technique. , 2011, , .		0
122	Water Infiltration in ZSM-5 Zeolites: Effect of Pore Volume and Water Structure. , 2012, , .		0
123	Analytical Approximations for the Closure Time of Freezing Processes in Spheres and Cylindrical Tubes. Journal of Thermal Science and Engineering Applications, 2019, 11, .	0.8	0
124	Microstructure and hardness behaviours of Ti-containing Al-Si alloys. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2002, 82, 803-814.	0.7	0
125	An approach to develop a rapid manufacturing knowledge-based environment. , 2009, , .		0