

# Michela Alfe

## List of Publications by Year in descending order

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89  
papers

3,438  
citations

109137

35  
h-index

149479

56  
g-index

90  
all docs

90  
docs citations

90  
times ranked

4373  
citing authors

#	ARTICLE	IF	CITATIONS
1	Building a Block Diversity in Polydopamine Underpins a Multifunctional Eumelanin-Type Platform Tunable Through a Quinone Control Point. <i>Advanced Functional Materials</i> , 2013, 23, 1331-1340.	7.8	482
2	Structure-property relationship in nanostructures of young and mature soot in premixed flames. <i>Proceedings of the Combustion Institute</i> , 2009, 32, 697-704.	2.4	240
3	Isotherms and thermodynamics of CO <sub>2</sub> adsorption on a novel carbon-magnetite composite sorbent. <i>Chemical Engineering Research and Design</i> , 2018, 134, 540-552.	2.7	131
4	Soot nanostructure evolution in premixed flames by High Resolution Electron Transmission Microscopy (HRTEM). <i>Proceedings of the Combustion Institute</i> , 2015, 35, 1895-1902.	2.4	120
5	Kinetic study and breakthrough analysis of the hybrid physical/chemical CO <sub>2</sub> adsorption/desorption behavior of a magnetite-based sorbent. <i>Chemical Engineering Journal</i> , 2019, 372, 526-535.	6.6	109
6	Stem cell-compatible eumelanin biointerface fabricated by chemically controlled solid state polymerization. <i>Materials Horizons</i> , 2015, 2, 212-220.	6.4	97
7	The effect of temperature on soot properties in premixed methane flames. <i>Combustion and Flame</i> , 2010, 157, 1959-1965.	2.8	93
8	Probing structures of soot formed in premixed flames of methane, ethylene and benzene. <i>Proceedings of the Combustion Institute</i> , 2013, 34, 1885-1892.	2.4	80
9	Mass spectrometric analysis of large PAH in a fuel-rich ethylene flame. <i>Proceedings of the Combustion Institute</i> , 2007, 31, 547-553.	2.4	78
10	CO <sub>2</sub> capture performance of HKUST-1 in a sound assisted fluidized bed. <i>Chemical Engineering Journal</i> , 2014, 239, 75-86.	6.6	77
11	Aromatic structures of carbonaceous materials and soot inferred by spectroscopic analysis. <i>Carbon</i> , 2004, 42, 1583-1589.	5.4	70
12	Inherent Metal Elements in Biomass Pyrolysis: A Review. <i>Energy &amp; Fuels</i> , 2021, 35, 5407-5478.	2.5	68
13	Chemico-physical features of soot emitted from a dual-fuel ethanol-diesel system. <i>Fuel</i> , 2015, 150, 154-161.	3.4	67
14	Diesel exhaust particles induce autophagy and citrullination in Normal Human Bronchial Epithelial cells. <i>Cell Death and Disease</i> , 2018, 9, 1073.	2.7	64
15	Assessing the Potential of Biochars Prepared by Steam-Assisted Slow Pyrolysis for CO <sub>2</sub> Adsorption and Separation. <i>Energy &amp; Fuels</i> , 2018, 32, 10218-10227.	2.5	64
16	Structural Characterization of Large Polycyclic Aromatic Hydrocarbons. Part 1: The Case of Coal Tar Pitch and Naphthalene-Derived Pitch. <i>Energy &amp; Fuels</i> , 2015, 29, 5714-5722.	2.5	55
17	Synthesis and characterization of conductive copper-based metal-organic framework/graphene-like composites. <i>Materials Chemistry and Physics</i> , 2014, 147, 744-750.	2.0	54
18	Interfacial properties of carbon particulate-laden liquid interfaces and stability of related foams and emulsions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2010, 365, 189-198.	2.3	53

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19	BTC-based metal-organic frameworks: Correlation between relevant structural features and CO <sub>2</sub> adsorption performances. <i>Fuel</i> , 2018, 222, 319-326.	3.4	50
20	Identification of large polycyclic aromatic hydrocarbons in carbon particulates formed in a fuel-rich premixed ethylene flame. <i>Carbon</i> , 2008, 46, 2059-2066.	5.4	48
21	Fingerprints of polycyclic aromatic hydrocarbons (PAHs) in infrared absorption spectroscopy. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2016, 152, 134-148.	2.0	48
22	Vibrationally resolved high-resolution NEXAFS and XPS spectra of phenanthrene and coronene. <i>Journal of Chemical Physics</i> , 2014, 141, 044313.	1.2	47
23	Effect of Fuel/Air Ratio and Aromaticity on Sooting Behavior of Premixed Heptane Flames. <i>Energy &amp; Fuels</i> , 2007, 21, 2655-2662.	2.5	45
24	Effect of fuel/air ratio and aromaticity on the molecular weight distribution of soot in premixed n-heptane flames. <i>Proceedings of the Combustion Institute</i> , 2009, 32, 803-810.	2.4	45
25	Wet Chemical Method for Making Graphene-like Films from Carbon Black. <i>ACS Applied Materials &amp; Interfaces</i> , 2012, 4, 4491-4498.	4.0	44
26	Aggregation and interactions of C <sub>60</sub> and C <sub>70</sub> fullerenes in neat N-methylpyrrolidinone and in N-methylpyrrolidinone/toluene mixtures. <i>Chemical Physics Letters</i> , 2005, 405, 193-197.	1.2	42
27	Evidencing opposite charge-transfer processes at TiO <sub>2</sub> /graphene-related materials interface through a combined EPR, photoluminescence and photocatalysis assessment. <i>Catalysis Today</i> , 2018, 315, 19-30.	2.2	42
28	Adsorption of heavy metals on silica-supported hydrophilic carbonaceous nanoparticles (SHNPs). <i>Journal of Hazardous Materials</i> , 2020, 393, 122374.	6.5	42
29	Supplementing ï€-systems: eumelanin and graphene-like integration towards highly conductive materials for the mammalian cell culture bio-interface. <i>Journal of Materials Chemistry B</i> , 2015, 3, 5070-5079.	2.9	40
30	Influence of possible interactions between biomass organic components and alkali metal ions on steam assisted pyrolysis: A case study on <i>Arundo donax</i> . <i>Journal of Analytical and Applied Pyrolysis</i> , 2015, 112, 244-252.	2.6	40
31	TiO <sub>2</sub> /graphene-like photocatalysts for selective oxidation of 3-pyridine-methanol to vitamin B <sub>3</sub> under UV/solar simulated radiation in aqueous solution at room conditions: The effect of morphology on catalyst performances. <i>Applied Catalysis A: General</i> , 2014, 487, 91-99.	2.2	39
32	Magnetite loaded carbon fine particles as low-cost CO <sub>2</sub> adsorbent in a sound assisted fluidized bed. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 2801-2809.	2.4	38
33	Antimicrobial properties of graphene-like nanoparticles: coating effect on <i>Staphylococcus aureus</i> . <i>Journal of Nanoparticle Research</i> , 2016, 18, 1.	0.8	38
34	Diesel exhaust particle exposure in vitro impacts T lymphocyte phenotype and function. <i>Particle and Fibre Toxicology</i> , 2014, 11, 74.	2.8	37
35	Proinflammatory Effects of Diesel Exhaust Nanoparticles on Scleroderma Skin Cells. <i>Journal of Immunology Research</i> , 2014, 2014, 1-9.	0.9	36
36	CO <sub>2</sub> sorption on surface-modified carbonaceous support: Probing the influence of the carbon black microporosity and surface polarity. <i>Applied Surface Science</i> , 2016, 360, 329-337.	3.1	35

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37	Distribution of Soot Molecular Weight/Size along Premixed Flames as Inferred by Size Exclusion Chromatography. <i>Energy &amp; Fuels</i> , 2007, 21, 136-140.	2.5	31
38	Experimental and modeling study on the molecular weight distribution and properties of carbon particles in premixed sooting flames. <i>Proceedings of the Combustion Institute</i> , 2011, 33, 633-640.	2.4	31
39	The effect of temperature on the condensed phases formed in fuel-rich premixed benzene flames. <i>Combustion and Flame</i> , 2012, 159, 2233-2242.	2.8	31
40	Particle emissions from a HD SI gas engine fueled with LPG and CNG. <i>Fuel</i> , 2020, 269, 117439.	3.4	30
41	Spectral Analysis in the UV-Visible Range for Revealing the Molecular Form of Combustion-Generated Carbonaceous Species. <i>Combustion Science and Technology</i> , 2012, 184, 1219-1231.	1.2	27
42	Graphene-like layers as promising chemiresistive sensing material for detection of alcohols at low concentration. <i>Journal of Applied Physics</i> , 2018, 123, .	1.1	27
43	Effect of alkali metal ions presence on the products of xylan steam assisted slow pyrolysis. <i>Fuel</i> , 2018, 216, 36-43.	3.4	27
44	Solid sorbents for CO <sub>2</sub> and CH <sub>4</sub> adsorption: The effect of metal organic framework hybridization with graphene-like layers on the gas sorption capacities at high pressure. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 141, 110816.	8.2	27
45	Preliminary study on the adoption of dark fermentation as pretreatment for a sustainable hydrothermal denaturation of cement-asbestos composites. <i>Journal of Cleaner Production</i> , 2017, 166, 172-180.	4.6	26
46	Effect of substrate temperature on MAPLE deposition of synthetic eumelanin films. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 105, 619-627.	1.1	25
47	Similarities and dissimilarities in n-hexane and benzene sooting premixed flames. <i>Proceedings of the Combustion Institute</i> , 2007, 31, 585-591.	2.4	24
48	THz spectroscopy on graphene-like materials for bio-compatible devices. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	24
49	Advantages and limitations of laser desorption/ionization mass spectrometric techniques in the chemical characterization of complex carbonaceous materials. <i>International Journal of Mass Spectrometry</i> , 2010, 295, 98-102.	0.7	22
50	Slow pyrolysis of xylan as pentose model compound for hardwood hemicellulose: A study of the catalytic effect of Na ions. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 137, 266-275.	2.6	22
51	Tuning the surface morphology of self-assembled graphene-like thin films through pH variation. <i>Applied Surface Science</i> , 2015, 353, 628-635.	3.1	21
52	Solar photocatalytic processes for treatment of soil washing wastewater. <i>Chemical Engineering Journal</i> , 2017, 318, 10-18.	6.6	21
53	Simple Ethanol Refluxing Method for Production of Blue-Colored Titanium Dioxide with Oxygen Vacancies and Visible Light-Driven Photocatalytic Properties. <i>Journal of Physical Chemistry C</i> , 2020, 124, 3564-3576.	1.5	21
54	Soot particles at the aqueous interface and effects on foams stability. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2012, 413, 216-223.	2.3	20

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55	SPECTRAL PROPERTIES OF SOOT IN THE UV-VISIBLE RANGE. <i>Combustion Science and Technology</i> , 2007, 179, 371-385.	1.2	17
56	Characterization of Soot. <i>Green Energy and Technology</i> , 2013, , 333-362.	0.4	16
57	Eumelanin Graphene-Like Integration: The Impact on Physical Properties and Electrical Conductivity. <i>Frontiers in Chemistry</i> , 2019, 7, 121.	1.8	14
58	Solution behaviour of C60 fullerene in N-Methylpyrrolidinone/toluene mixtures. <i>Carbon</i> , 2005, 43, 665-667.	5.4	13
59	Characterization of nanometric carbon materials by time-resolved fluorescence polarization anisotropy. <i>Optics and Lasers in Engineering</i> , 2006, 44, 732-746.	2.0	13
60	Mesoporous TiO <sub>2</sub> from Metal-Organic Frameworks for Photoluminescence-Based Optical Sensing of Oxygen. <i>Catalysts</i> , 2021, 11, 795.	1.6	13
61	Mass Spectrometric Advances in the Analysis of Large Aromatic Fractions of Heavy Fuel Oils and Carbon Particulates. <i>Combustion Science and Technology</i> , 2010, 182, 640-652.	1.2	11
62	On the modeling of heavy metals and rare earth elements adsorption on colloidal carbon-based nanoparticles. <i>Applied Surface Science</i> , 2020, 505, 144264.	3.1	11
63	Insights about the effect of composition, branching and molecular weight on the slow pyrolysis of xylose-based polysaccharides. <i>Journal of Analytical and Applied Pyrolysis</i> , 2022, 161, 105369.	2.6	11
64	Graphenic Nanoparticles from Combustion Sources Scavenge Hydroxyl Radicals Depending Upon Their Structure. <i>BioNanoScience</i> , 2013, 3, 112-122.	1.5	10
65	Characterization of Different Types of Diesel (EGR Cooler) Soot Samples. <i>SAE International Journal of Engines</i> , 0, 8, 1804-1814.	0.4	9
66	Chemical/Physical Features of Particles Emitted from a Modern Automotive Dual-Fuel Methane-Diesel Engine. <i>Energy &amp; Fuels</i> , 2018, 32, 10154-10162.	2.5	9
67	Colloidal Carbon-Based Nanoparticles as Heavy Metal Adsorbent in Aqueous Solution: Cadmium Removal as a Case Study. <i>Water, Air, and Soil Pollution</i> , 2017, 228, 1.	1.1	8
68	Glycerol Hydrogenolysis to 1,2-Propanediol over Novel Cu/ZrO <sub>2</sub> Catalysts. <i>Catalysts</i> , 2022, 12, 72.	1.6	8
69	Analysis of the Impact of the Dual-Fuel Ethanol-Diesel System on the Size, Morphology, and Chemical Characteristics of the Soot Particles Emitted from a LD Diesel Engine. , 0, , .		6
70	Removal of Very Small Submicrometric Particles by Water Nucleation: Effects of Chemical-Physical Properties of Particles. <i>Energy &amp; Fuels</i> , 2018, 32, 10285-10294.	2.5	5
71	About the Influence of Doping Approach on the Alkali Metal Catalyzed Slow Pyrolysis of Xylan. <i>Journal of Chemistry</i> , 2019, 2019, 1-11.	0.9	5
72	Graphene-Like Layers from Carbon Black: In Vivo Toxicity Assessment. <i>Nanomaterials</i> , 2020, 10, 1472.	1.9	5

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73	A study on the structural features of the water-insoluble fraction (WIF) isolated from biomass slow steam pyrolysis liquids. <i>Journal of Analytical and Applied Pyrolysis</i> , 2016, 121, 128-137.	2.6	4
74	CO <sub>2</sub> Adsorption under Dynamic Conditions: An Overview on Rice Husk-Derived Sorbents and Other Materials. <i>Combustion Science and Technology</i> , 2019, 191, 1484-1498.	1.2	4
75	Suitability of Nanoparticles to Face Benzo(a)pyrene-Induced Genetic and Chromosomal Damage in <i>M. galloprovincialis</i> . An In Vitro Approach. <i>Nanomaterials</i> , 2021, 11, 1309.	1.9	4
76	When Physical Chemistry Meets Circular Economy to Solve Environmental Issues: How the ReScA Project Aims at Using Waste Pyrolysis Products to Improve and Rejuvenate Bitumens. <i>Sustainability</i> , 2022, 14, 5790.	1.6	4
77	Time-resolved fluorescence polarization anisotropy of multimodal samples: the asphaltene case. <i>Applied Physics B: Lasers and Optics</i> , 2008, 90, 61-67.	1.1	3
78	An Old but Lively Nanomaterial: Exploiting Carbon Black for the Synthesis of Advanced Materials. <i>Eurasian Chemico-Technological Journal</i> , 2019, 21, 203.	0.3	3
79	Easy tuning of nanotexture and N doping of carbonaceous particles produced by spark discharge. <i>Carbon Trends</i> , 2021, 5, 100134.	1.4	3
80	Chemical and Spectroscopic Characterization of SOF and Soot from a Euro-4 Diesel Engine Fueled by Model Fuels. , 0, , .		2
81	Graphene-Like Based-Chemiresistors Inkjet-Printed onto Paper Substrate. <i>Lecture Notes in Electrical Engineering</i> , 2019, , 337-343.	0.3	2
82	Modified Carbonized Rice Husk as Low-Cost CO <sub>2</sub> Adsorbent: Perspectives and Possible Improvements. <i>DEStech Transactions on Materials Science and Engineering</i> , 2017, , .	0.0	2
83	Graphene-Like Layers from Unconventional Carbon Sources: New Perspectives on Hybrid Materials and ĩE-system Synergisms. <i>Eurasian Chemico-Technological Journal</i> , 2017, 18, 263.	0.3	2
84	Acid Modification of Diatomite-Based Sorbents. <i>Eurasian Chemico-Technological Journal</i> , 2020, 22, 157.	0.3	2
85	SORPTION ABILITY OF MODIFIED NANO-CARBON MATERIALS. <i>Series Chemistry and Technology</i> , 2019, 3, 63-70.	0.1	1
86	Versatile and Scalable Approaches to Tune Carbon Black Characteristics for Boosting Adsorption and VOC Sensing Applications. , 0, , .		1
87	A New Chemical Sensing Material for Ethanol Detection: Graphene-Like Film. <i>Lecture Notes in Electrical Engineering</i> , 2018, , 59-65.	0.3	0
88	Nanocomposite material like advanced sorbent materials for carbon dioxide capture. <i>Gorenie I PlazmohimiĀç</i> , 2021, 16, 115-119.	0.0	0
89	Carbon based nanocomposite material for CO <sub>2</sub> capture technology. <i>Gorenie I PlazmohimiĀç</i> , 2019, 17, 9-13.	0.0	0