Brigitte Caussat

List of Publications by Year
in descending order

74 papers	1,553 citations	361045 20 h-index	329751 37 g-index
75 all docs	75 docs citations	75 times ranked	1706 citing authors

#	Article	IF	Citations
1	Principles and applications of CVD powder technology. Materials Science and Engineering Reports, 2006, 53, 1-72.	14.8	147
2	Carbon nanotubes produced by fluidized bed catalytic CVD: first approach of the process. Chemical Engineering Science, 2003, 58, 4475-4482.	1.9	139
3	Multifluid Eulerian modeling of dense gasâ€“solids fluidized bed hydrodynamics: Influence of the dissipation parameters. Chemical Engineering Science, 2008, 63, 5540-5551.	1.9	128
4	Properties of Membranes Containing Semi-dispersed Carbon Nanotubes. Environmental Engineering Science, 2008, 25, 565-576.	0.8	95
5	A parametric study of the large scale production of multi-walled carbon nanotubes by fluidized bed catalytic chemical vapor deposition. Carbon, 2007, 45, 624-635.	5.4	78
6	Catalytic Production of Carbon Nanotubes by Fluidizedâ€Bed CVD. Chemical Vapor Deposition, 2007, 13, 447-457.	1.4	76
7	Silicon deposition from silane or disilane in a fluidized bedâ€”Part I: Experimental study. Chemical Engineering Science, 1995, 50, 3615-3624.	1.9	59
8	An original growth mode of MWCNTs on alumina supported iron catalysts. Journal of Catalysis, 2009, 263, 345-358.	3.1	55
9	Experimental study on fluidization of micronic powders. Powder Technology, 2005, 157, 114-120.	2.1	46
10	Investigation of the initial deposition steps and the interfacial layer of Atomic Layer Deposited (ALD) Al2O3 on Si. Applied Surface Science, 2019, 492, 245-254.	3.1	46
11	Kinetic study of carbon nanotubes synthesis by fluidized bed chemical vapor deposition. AICHE Journal, 2009, 55, 450-464.	1.8	41
12	Detailed investigation of the surface mechanisms and their interplay with transport phenomena in alumina atomic layer deposition from TMA and water. Chemical Engineering Science, 2019, 195, 399-412.	1.9	35
13	Silicon CVD on powders in fluidized bed: Experimental and multifluid Eulerian modelling study. Surface and Coatings Technology, 2007, 201, 8919-8923.	2.2	29
14	Three dimensional graphene synthesis on nickel foam by chemical vapor deposition from ethylene. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2014, 179, 12-16.	1.7	29
15	Multifluid Eulerian modelling of a silicon Fluidized Bed Chemical Vapor Deposition process: Analysis of various kinetic models. Chemical Engineering Journal, 2009, 148, 506-516.	6.6	26
16	Computational Fluid Dynamics simulation of the ALD of alumina from TMA and H2O in a commercial reactor. Chemical Engineering Research and Design, 2018, 132, 795-811.	2.7	26
17	Silicon Chemical Vapor Deposition on macro and submicron powders in a fluidized bed. Powder Technology, 2009, 190, 185-191.	2.1	25
18	High quality graphene synthesized by atmospheric pressure CVD on copper foil. Surface and Coatings Technology, 2013, 230, 87-92.	2.2	25

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19	Investigation of the densification mechanisms and corrosion resistance of amorphous silica films. Journal of Non-Crystalline Solids, 2019, 515, 34-41.	1.5	25
20	Alumina coatings on silica powders by Fluidized Bed Chemical Vapor Deposition from aluminium acetylacetonate. Chemical Engineering Journal, 2012, 211-212, 68-76.	6.6	22
21	Effects of reducing the reactor diameter on the fluidization of a very dense powder. Powder Technology, 2015, 277, 268-274.	2.1	21
22	CVD and Powders: A Great Potential to Create New Materials. Chemical Vapor Deposition, 2007, 13, 443-445.	1.4	20
23	High temperature annealing of micrometric Zn2SiO4:Mn phosphor powders in fluidized bed. Materials Research Bulletin, 2008, 43, 2751-2762.	2.7	20
24	Kinetic modeling study of carbon nanotubes synthesis by fluidized bed chemical vapor deposition. AICHE Journal, 2009, 55, 465-474.	1.8	15
25	Local Kinetic Modeling of Aluminum Oxide Metalâ€Organic CVD From Aluminum Triâ€isopropoxide. Chemical Vapor Deposition, 2011, 17, 181-185.	1.4	15
26	Fluidization and coating of very dense powders by Fluidized Bed Chemical Vapour Deposition. Chemical Engineering Research and Design, 2013, 91, 2477-2483.	2.7	15
27	The Role of the Gas Phase in Graphene Formation by <scp>CVD</scp> on Copper. Chemical Vapor Deposition, 2014, 20, 51-58.	1.4	15
28	Liquid and Solid Precursor Delivery Systems in Gas Phase Processes. Recent Patents on Materials Science, 2015, 8, 91-108.	0.5	13
29	Modeling of spray pyrolysisâ€"why are the synthesized Y₂O₃ microparticles hollow?. AICHE Journal, 2008, 54, 394-405.	1.8	12
30	Fluidized bed chemical vapor deposition of copper nanoparticles on multi-walled carbon nanotubes. Surface and Coatings Technology, 2017, 331, 129-136.	2.2	12
31	An out of the box vision over oxidative chemical vapor deposition of PEDOT involving sublimed iron trichloride. Synthetic Metals, 2020, 266, 116419.	2.1	11
32	A dimensionless study of the evaporation and drying stages in spray pyrolysis. Computers and Chemical Engineering, 2007, 31, 1088-1099.	2.0	10
33	Crystallization of microscopic Y2O3 powders by different techniques of fluidization at high temperature. Chemical Engineering Journal, 2006, 125, 25-33.	6.6	9
34	Chemical vapor deposition of silicon nanodots on TiO2 submicronic powders in vibrated fluidized bed. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 170, 41-50.	1.7	9
35	Multi-scale modelling of silicon nanocrystal synthesis by Low Pressure Chemical Vapor Deposition. Thin Solid Films, 2011, 519, 7650-7658.	0.8	9
36	Decorated carbon nanotubes by silicon deposition in fluidized bed for Li-ion battery anodes. Chemical Engineering Research and Design, 2013, 91, 2491-2496.	2.7	9

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37	Development of a kinetic model for the moderate temperature chemical vapor deposition of SiO₂ films from tetraethyl orthosilicate and oxygen. AICHE Journal, 2018, 64, 3958-3966.	1.8	9
38	Large temperature range model for the atmospheric pressure chemical vapor deposition of silicon dioxide films on thermosensitive substrates. Chemical Engineering Research and Design, 2020, 161, 146-158.	2.7	9
39	Liquid antimony pentachloride as oxidant for robust oxidative chemical vapor deposition of poly(3,4-ethylenedioxythiophene) films. Applied Surface Science, 2021, 554, 149501.	3.1	9
40	Y2O3:Eu micronic particles synthesised by spray pyrolysis: Global modelling and optimisation of the evaporation stage. Chemical Engineering and Processing: Process Intensification, 2008, 47, 731-743.	1.8	8
41	Fluidizedâ€Bed MOCVD of Bi₂O₃ Thin Films from Bismuth Triphenyl under Atmospheric Pressure. Chemical Vapor Deposition, 2010, 16, 123-126.	1.4	8
42	Effects of reducing the reactor diameter on the dense gasâ€“solid fluidization of very heavy particles: 3D numerical simulations. Chemical Engineering Research and Design, 2017, 117, 575-583.	2.7	8
43	Tunable SiO2 to SiOxCyH films by ozone assisted chemical vapor deposition from tetraethylorthosilicate and hexamethyldisilazane mixtures. Surface and Coatings Technology, 2021, 407, 126762.	2.2	8
44	Modelling of an industrial moving belt chemical vapour deposition reactor forming <mml:math altimg="si53.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevi. Chemical Eng	1.9	7
45	Amorphous Alumina Coatings on Glass Bottles Using Direct Liquid Injection MOCVD for Packaging Applications. Advances in Science and Technology, 0, , .	0.2	7
46	Modeling a MOCVD process to apply alumina films on the inner surface of bottles. Surface and Coatings Technology, 2015, 275, 167-175.	2.2	7
47	A new route for the integration of a graphene/diazonium/PEDOT electrode towards antioxidant biomarker detection. Journal of Electroanalytical Chemistry, 2016, 771, 73-79.	1.9	7
48	Influence of dopant concentration and type of substrate on the local organization of low-pressure chemical vapour deposition in situ boron doped silicon films from silane and boron trichloride. Thin Solid Films, 2004, 446, 218-226.	0.8	6
49	Alumina Coating on Dense Tungsten Powder by Fluidized Bed Metal Organic Chemical Vapour Deposition. Journal of Nanoscience and Nanotechnology, 2011, 11, 8083-8088.	0.9	6
50	Low temperature silicon oxide deposition on polymer powders in a fluidized bed coupled to a cold remote plasma. Surface and Coatings Technology, 2012, 206, 4814-4821.	2.2	6
51	Î™n situ N2-NH3 plasma pre-treatment of silicon substrate enhances the initial growth and restricts the substrate oxidation during alumina ALD. Journal of Applied Physics, 2019, 126, 125305.	1.1	6
52	Amorphous Alumina Barrier Coatings on Glass: MOCVD Process and Hydrothermal Aging. Advanced Materials Interfaces, 2016, 3, 1600014.	1.9	5
53	Low-Pressure Chemical Vapor Deposition of Semi-insulating Polycrystalline Silicon Thin Films: I. Experimental Study and Proposal of New Kinetic Laws. Journal of the Electrochemical Society, 2001, 148, C149.	1.3	4
54	Towards multiscale modeling of Si nanocrystals LPCVD deposition on SiO2: From ab initio calculations to reactor scale simulations. Surface and Coatings Technology, 2007, 201, 8854-8858.	2.2	4

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55	Development of an original model for the synthesis of silicon nanodots by Low Pressure Chemical Vapor Deposition. Chemical Engineering Journal, 2008, 140, 600-608.	6.6	4
56	Mechanical and Surface Properties of Chemical Vapor Deposited Protective Aluminium Oxide Films on TA6V Alloy. Advances in Science and Technology, 0, , .	0.2	4
57	Silicon coating on very dense tungsten particles by fluidized bed CVD for nuclear application. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 1599-1606.	0.8	4
58	Network hydration, ordering and composition interplay of chemical vapor deposited amorphous silica films from tetraethyl orthosilicate. Journal of Materials Research and Technology, 2021, 13, 534-547.	2.6	4
59	An innovative kinetic model allowing insight in the moderate temperature chemical vapor deposition of silicon oxynitride films from tris(dimethylsilyl)amine. Chemical Engineering Journal, 2022, 431, 133350.	6.6	4
60	Modeling of Silicon CVD into Agglomerates of Subâ€micrometerâ€size Particles in a Fluidized Bed. Chemical Vapor Deposition, 2011, 17, 305-311.	1.4	3
61	Iron deposition on multi-walled carbon nanotubes by fluidized bed MOCVD for aeronautic applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 861-868.	0.8	3
62	Decoration of Carbon Nanotubes by Semiconducting or Metallic Nanoparticles using Fluidized Bed Chemical Vapour Deposition. KONA Powder and Particle Journal, 2016, 33, 322-332.	0.9	3
63	An innovative GC-MS, NMR and ESR combined, gas-phase investigation during chemical vapor deposition of silicon oxynitrides films from tris(dimethylsilyl)amine. Physical Chemistry Chemical Physics, 2021, 23, 10560-10572.	1.3	3
64	Synthesis of Multi-Walled Carbon Nanotubes by Fluidized-Bed Chemical Vapor Deposition over Co/Al₂O₃. Journal of Chemical Engineering of Japan, 2014, 47, 28-39.	0.3	3
65	Fluidized Bed Chemical Vapor Deposition of Silicon on Carbon Nanotubes for Li-Ion Batteries. Journal of Nanoscience and Nanotechnology, 2011, 11, 8392-8395.	0.9	2
66	Fluidizedâ€Bed Chemical Vapor Deposition of Silicon on Very Dense Tungsten Powder. Chemical Engineering and Technology, 2015, 38, 1254-1260.	0.9	2
67	Barrier properties and hydrothermal aging of amorphous alumina coatings applied on pharmaceutical vials. Surface and Coatings Technology, 2021, 425, 127711.	2.2	2
68	Critical Level of Nitrogen Incorporation in Silicon Oxynitride Films: Transition of Structure and Properties, toward Enhanced Anticorrosion Performance. ACS Applied Electronic Materials, 0, , .	2.0	2
69	Boron-Doped Polysilicon: Growth Kinetics and Structural Study of Low-Pressure Chemical Vapour Deposited Films in the Case of High Doping Levels. Solid State Phenomena, 2001, 80-81, 59-64.	0.3	1
70	LP-CVD Silicon-Based Film Formation in Submicrometer Trenches in Industrial Equipment: Experiments and Simulation. Chemical Vapor Deposition, 2002, 8, 213-219.	1.4	1
71	Influence of the synthesis conditions of silicon nanodots in an industrial low pressure chemical vapor deposition reactor. Applied Surface Science, 2008, 254, 2927-2933.	3.1	1
72	Largeâ€scale oxidation of multiâ€walled carbon nanotubes in fluidized bed from ozoneâ€containing gas mixtures. Canadian Journal of Chemical Engineering, 2018, 96, 688-695.	0.9	1

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73	Beyond surface nanoindentation: Combining static and dynamic nanoindentation to assess intrinsic mechanical properties of chemical vapor deposition amorphous silicon oxide (SiOx) and silicon oxycarbide (SiOxCy) thin films. Thin Solid Films, 2021, 735, 138844.	0.8	1
74	Metalorganic chemical vapor deposition of aluminum oxides: A paradigm on the process-structure-properties relationship. , 2022, , 133-168.		0