Citation Report
List of articles citing

Gas molecule adsorption in carbon nanotubes and nanotube bundles

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#	Paper	IF	Citations
1024	An innovative approach to gas sensing using carbon nanotubes thin films: sensitivity, selectivity and stability response analysis.		2
1023	Layering Behavior and Axial Phase Equilibria of Pure Water and Water + Carbon Dioxide Inside Single Wall Carbon Nanotubes. **2002**, 2, 1427-1431		44
1022	Interaction of O2 with a (9,0) carbon nanotube. **2002**, 362, 217-223		56
1021	Carbon Nanotube Sensors for Gas and Organic Vapor Detection. **2003**, 3, 929-933		1433
1020	NO2 and CO gas adsorption on carbon nanotubes: Experiment and theory. **2003**, 119, 10904-10910		199
1019	Noncovalent functionalization of carbon nanotubes by aromatic organic molecules. **2003**, 82, 3746-3748		237
1018	Scanning tunneling microscopy images of argon monolayer on a monolayer graphite surface. **2003**, 371, 528-533		11
1017	The bonding of N2 to models of a (9,0) carbon nanotube and graphite. **2003**, 373, 422-425		14
1016	CO2 adsorption in single-walled carbon nanotubes. **2003**, 376, 761-766		302
1015	Opening of single-walled carbon nanotubes: evidence given by krypton and xenon adsorption. **2003** , 531, 86-92		38
1014	NO2 gas sensitivity of carbon nanotubes obtained by plasma enhanced chemical vapor deposition. **2003**, 93, 333-337		150
1013	Sensitivity to NO2 and cross-sensitivity analysis to NH3, ethanol and humidity of carbon nanotubes thin film prepared by PECVD. **2003**, 95, 195-202		118
1012	Reversible oxidation effects on carbon nanotubes thin films for gas sensing applications. **2003**, 23, 523-529		77
1011	Effects of oxygen annealing on gas sensing properties of carbon nanotube thin films. **2003**, 436, 95-100		65
1010	Sensors for sub-ppm NO2 gas detection based on carbon nanotube thin films. **2003**, 82, 961-963		434
1009	Oxygen adsorption on graphite and nanotubes. **2003**, 118, 1003-1006		240
1008	Single-wall carbon nanotube interaction with gases: sample contaminants and environmental monitoring. **2003**, 125, 11329-33		239

1007	Toward Large Arrays of Multiplex Functionalized Carbon Nanotube Sensors for Highly Sensitive and Selective Molecular Detection. **2003**, 3, 347-351	859
1006	Comparison of the reactivity of O2 with a (10,0) and a (9,0) carbon nanotube. **2003**, 68,	41
1005	Calculations of adsorption of O2and H2O on a carbon nanotube tip in field-emission conditions. **2003**, 36, 3034-3038	6
1004	N2 Physisorption on Carbon Nanotubes: Computer Simulation and Experimental Results. **2003**, 107, 8905-8916	40
1003	Gas adsorption in single-walled carbon nanotubes studied by NMR. **2003**, 68,	71
1002	Tuning chirality of single-wall carbon nanotubes by selective etching with carbon dioxide. **2003**, 125, 13946-7	15
1001	Ozone reactivity with carbon nanotubes: experimental and theoretical studies.	1
1000	Chemisorption of NO2 on Carbon Nanotubes. **2003**, 107, 9363-9369	100
999	Nerve agent detection using networks of single-walled carbon nanotubes. **2003**, 83, 4026-4028	380
998	Selective gas detection using a carbon nanotube sensor. **2003**, 83, 2280-2282	291
997	A novel micro-gas sensor using laterally grown carbon nanotubes.	
996	Effects of carbon-containing gases on the field-emission current of multiwalled carbon-nanotube arrays. **2003**, 21, 1202-1204	16
995	Nanocomposite Material for Sensing of Halogenated Methanes: A Model Based on Charge Transfer Interaction for Selectivity. **2003**, 788, 1041	2
994	Nitrogen adsorption on carbon nanotube bundles: Role of the external surface. **2003**, 68,	59
993	Ground states of adsorbates on single-walled carbon nanotubes. **2003**, 67,	11
992	Piezoelectric Materials at Elevated Temperature. **2003**, 14, 693-705	70
991	First-Principles Calculations of Scanning-Tunnelling-Microscopy Images of Ar Atoms Adsorbed on a Graphite Sheet. **2003**, 20, 2019-2022	3
990	Investigation of the NO2 sensitivity properties of multiwalled carbon nanotubes prepared by plasma enhanced chemical vapor deposition. **2003**, 21, 1996	32

989	Molecular Encapsulation of Gases. **2004**, 57, 713		39
988	Multi-walled carbon nanotubes experiencing electrical breakdown as gas sensors. *Nanotechnology*, **2004**, 15, 1596-1602	3.4	47
987	Influence of molecular adsorption on the dielectric properties of a single wall nanotube: a model sensor. **2004**, 121, 9655-65		41
986	Ozone adsorption on carbon nanotubes: the role of Stone-Wales defects. **2004**, 120, 7147-52		85
985	Structural determination of iodine localization in single-walled carbon nanotube bundles by diffraction methods. **2004**, 69,		36
984	Displacement of CO2 by Xe in single-walled carbon nanotube bundles. **2004**, 70,		24
983	Band Engineering of Partially Exposed Carbon Nanotube Field-Effect Transistors. **2004**, 858, 306		
982	Schematics and Atomistic Simulations of Nanomemory Element Based on Carbon Tube-to-Peapod Transition. **2004**, 43, 4447-4452		11
981	Response to Comment on Theoretical evaluation of hydrogen storage capacity in pure carbon nanostructures [J. Chem. Phys. 120, 9427 (2003)]. **2004**, 120, 9430-9432		5
980	Fabrication of vapor and gas sensors using films of aligned CNx nanotubes. **2004**, 386, 137-143		159
979	Theoretical study of atomic chemisorption on single-walled carbon nanotubes. Application of Anderson Newns model. **2004**, 353, 314-323		10
978	Interaction of methane with carbon nanotube thin films: role of defects and oxygen adsorption. **2004**, 24, 527-533		39
977	Carbon nanotubes as new materials for gas sensing applications. **2004**, 24, 1405-1408		115
976	Emerging supramolecular chemistry of gases. **2004**, 43, 558-71		138
975	Supramolekulare Chemie von Gasen. **2004**, 116, 568-581		38
974	Molecular dynamics study of hydrogen adsorption in Y-junction carbon nanotubes. **2004**, 684, 75-80		4
973	A simple approach in fabricating chemical sensor using laterally grown multi-walled carbon nanotubes. **2004**, 99, 118-122		94
972	Effects of oxygen annealing on cross sensitivity of carbon nanotubes thin films for gas sensing applications. **2004**, 100, 33-40		35

971	Bucky shuttle memory system based on boron-nitride nanopeapod. **2004**, 23, 135-140	26
970	Vibrations of atoms in the argon cluster surrounding a single-walled carbon nanotubeMD study. **2004**, 704, 203-209	3
969	Ab initio study of CNT NO2 gas sensor. **2004**, 387, 271-276	388
968	Role of defects on the gas sensing properties of carbon nanotubes thin films: experiment and theory. **2004**, 387, 356-361	113
967	Room temperature methane detection using palladium loaded single-walled carbon nanotube sensors. **2004**, 391, 344-348	307
966	Physical adsorption of carbon tetrachloride on as-produced and on mechanically opened single walled carbon nanotubes. **2004**, 42, 1549-1554	37
965	Spectroscopic characterization of contaminants and interaction with gases in single-walled carbon nanotubes. **2004**, 42, 2099-2112	47
964	Temporal changes in nitrogen adsorption properties of single-walled carbon nanotubes. **2004**, 42, 2699-2710	48
963	Microfabricated glucose sensor based on single-walled carbon nanotubes.	
962	Ozone adsorption on carbon nanotubes: Ab initio calculations and experiments. **2004**, 22, 1466-1470	33
961	Ab initio study of OH-functionalized single-wall carbon nanotubes. **2004**, 70,	50
960	Adsorption of NH3 and NO2 on Single-Walled Carbon Nanotubes. **2004**, 108, 7938-7943	111
959	Vibrational behavior of adsorbed CO2 on single-walled carbon nanotubes. **2004**, 120, 5377-86	68
958	Adsorption Properties and Structural Characterization of Activated Carbons and Nanocarbons. **2004**, 108, 15211-15215	57
957	Growth Energetics of Single-Wall Carbon Nanotubes with Carbon Monoxide. **2004**, 108, 4308-4313	9
956	Modeling of carbon nanotube Schottky barrier modulation under oxidizing conditions. **2004**, 69,	50
955	Spectroscopic characterization of contaminants and interaction with gases in single-walled carbon nanotubes. **2004**, 42, 2099-2099	1
954	Molecular selectivity due to adsorption properties in nanotubes. **2004**, 69,	78

953	Binding of NH3 to graphite and to a (9,0) carbon nanotube. **2004**, 70,		79
952	Intermolecular interaction potentials of the methane dimer from the local density approximation. **2004**, 69,		10
951	Multi-walled carbon nanotube-based gas sensors for NH3 detection. **2004**, 13, 1327-1332		121
950	Fullerene nano ball bearings: an atomistic study. *Nanotechnology*, **2004**, 15, 614-621	3.4	52
949	Introduction to Carbon Nanotubes. **2004**, 39-98		6
948	Electronic Properties of Carbon Nanotubes with Covalent Sidewall Functionalization. **2004**, 108, 4227-4230		252
947	Water at nanoscale confined in single-walled carbon nanotubes studied by NMR. **2004**, 65, 678-684		79
946	Highly sensitive and selective sensors based on carbon nanotubes thin films for molecular detection. **2004**, 13, 1301-1305		125
945	Gas sensing using carbon nanotube-based resonator.		8
944	Fullerene Shuttle Memory Device: Classical Molecular Dynamics Study. **2004**, 73, 1077-1081		26
943	A chemical sensor for chloromethanes using a nanocomposite of multiwalled carbon nanotubes with poly(3-methylthiophene). **2005**, 106, 766-771		71
942	Interaction induced depolarized light scattering from ultrathin Ne film covering single-walled carbon nanotubes of different chiralities. **2005**, 744-747, 577-580		8
941	Nanostructured and nanoscale devices, sensors and detectors. **2005**, 6, 312-318		163
940	Density functional study of Aun (n = 3) clusters on relaxed graphite surfaces. **2005**, 576, 107-115		19
939	Adsorption configuration of NH3 on single-wall carbon nanotubes. **2005**, 405, 90-92		39
938	Interaction enhancement on the ultrafast third-order optical nonlinearity of carbon nanotubes/polymer composites. **2005**, 407, 35-39		27
937	Adsorption of hydrogen on normal and pentaheptite single wall carbon nanotubes. **2005**, 34, 279-282		23
936	Density functional study of oxygen adsorption on 4- carbon nanotubes. **2005**, 72,		28

935	A nanoscale field effect data storage of bipolar endo-fullerenes shuttle device. **2005**, 5, 609-614		7
934	Large area growth of carbon nanotube arrays for sensing platforms. **2005**, 109, 75-80		15
933	Electronic and vibrational properties of chemically modified single-wall carbon nanotubes. **2005**, 58, 1-1		159
932	Simulated Water Adsorption Isotherms in Hydrophilic and Hydrophobic Cylindrical Nanopores. **2005**, 11, 397-401		37
931	Factors that affect conductance at the molecular level. **2005**, 813-830		
930	A Gas Sensor Array Using Carbon Nanotubes and Microfabrication Technology. **2005**, 8, H100		48
929	Direct Growth of Single-Walled Carbon Nanotube Networks on Alumina Substrate: A Novel Route to Ultrasensitive Gas Sensor Fabrication. **2005**, 44, 8227-8230		12
928	N2 Detection by the Carbon nanotubes Mat and Bundle. **2005**, 900, 1		
927	Carbon nanotubes and nanowires for biological sensing. **2005**, 300, 191-23		12
926	Ab initiostudy of curvature effects on the physical properties of the Xe-doped nanotubes and nanoropes. **2005**, 17, 2085-2110		8
925	Multiwall carbon nanotubes grown on a four-probe patterned catalyst layer for chemical sensor applications.		
924	Formation of odd-numbered clusters of CO2 adsorbed on nanotube bundles. **2005**, 94, 125701		28
923	Interaction of hydrogen with vacancies in a (12,0) carbon nanotube. **2005**, 71,		25
922	Oxygen-induced p-type doping of a long individual single-walled carbon nanotube. *Nanotechnology*, **2005**, 16, 1048-1052	3.4	100
921	Properties of gas sensor using CNTs thin film prepared by PLD/CVD method. **2005**, 900, 1		
920	Gas-induced variation in the dielectric properties of carbon nanotube bundles for selective sensing. **2005**, 97, 114316		37
919	Sensitivity of ammonia interaction with single-walled carbon nanotube bundles to the presence of defect sites and functionalities. **2005**, 127, 10533-8		156
918	Nanostructured Materials Based Next Generation Devices and Sensors. **2005**, 1-30		8

917	Investigation of the humidity effect on the electrical properties of single-walled carbon nanotube transistors. **2005**, 87, 093101		105
916	Controlled switching of optical emission energies in semiconducting single-walled carbon nanotubes. **2005**, 5, 1135-8		19
915	Dimensional effects on the LO-TO splitting in CF4: first-principles and infrared absorption studies. **2005**, 127, 3198-206		11
914	Van der Waals-corrected density functional theory: benchmarking for hydrogen-nanotube and nanotube-nanotube interactions. *Nanotechnology*, **2005**, 16, 2118-23	3.4	51
913	Hydrogen-bonded and physisorbed CO in single-walled carbon nanotube bundles. **2005**, 109, 4853-64		44
912	Etching of carbon nanotubes by ozone--a surface area study. **2005**, 21, 4200-4		81
911	Molecular dynamics simulations of nanomemory element based on boron-nitride nanotube-to-peapod transition. **2005**, 33, 317-324		9
910	Hydrogen sensors based on carbon nanotubes thin films. **2005**, 148, 15-19		166
909	Chirality- and diameter-dependent reactivity of NO2 on carbon nanotube walls. **2005**, 127, 15724-9		84
908	Water in carbon nanotubes: adsorption isotherms and thermodynamic properties from molecular simulation. **2005**, 122, 234712		210
907	Vacancy-induced chemisorption of NO2 on carbon nanotubes: a combined theoretical and experimental study. **2005**, 109, 13175-9		41
906	Three-terminal CNTs gas sensor for N2 detection. **2005**, 14, 1872-1875		51
905	Structural characterization of single-walled carbon nanotube bundles by experiment and molecular simulation. **2005**, 21, 896-904		96
904	Enhancement of hydrogen physisorption on graphene and carbon nanotubes by Li doping. **2005**, 123, 204721		217
903	Low-voltage ionization of air with carbon-based materials. **2005**, 14, 654-660		25
902	Amphoteric doping of carbon nanotubes by encapsulation of organic molecules: electronic properties and quantum conductance. **2005**, 123, 24705		59
901	Protein Nanotechnology. **2005**,		10
900	Interaction of water with single-walled carbon nanotubes: reaction and adsorption. **2005**, 109, 10640-6		50

899	van der Waals coupling in atomically doped carbon nanotubes. **2005**, 72,		47
898	Theoretical and experimental investigation of morphology and temperature effects on adsorption of organic vapors in single-walled carbon nanotubes. **2006**, 110, 7640-7		86
897	Density functional calculations of hydrogen adsorption on boron nanotubes and boron sheets. *Nanotechnology*, **2006**, 17, 778-785	3.4	78
896	Glycine interaction with carbon nanotubes: an ab initio study. **2006**, 110, 6048-50		35
895	The effect of the field emission on CNTs for N2 detection. **2006**, 15, 2015-2018		1
894	Density-functional calculation of methane adsorption on graphite (0001). **2006**, 73,		37
893	Adsorption of oxygen molecules on individual single-wall carbon nanotubes. **2006**, 99, 034306		40
892	Ab initio quantum force field for simulations of nanostructures. **2006**, 74,		27
891	Chemical vapor detection using single-walled carbon nanotubes. **2006**, 35, 790-8		219
890	Carbon Nanotubes - Towards Artificial Nose Implementation. **2006**,		
889	Organic Vaporensors Based on Single-walled CNTs. **2006**,		1
888	Quantum chemical prediction of reaction pathways and rate constants for dissociative adsorption of CO(x) and NO(x) on the graphite (0001) surface. **2006**, 110, 21135-44		36
887	Activated boron nitride nanotubes: A potential material for room-temperature hydrogen storage. **2006**, 74,		57
886	Nanoscale Materials, Devices, and Systems for Sensing, Detection, and Environmental Pollution Monitoring and Mitigation.		1
885	Nanostructured Pt functionlized multiwalled carbon nanotube based hydrogen sensor. **2006**, 110, 11291-8		164
884	Noncovalent interactions of molecules with single walled carbon nanotubes. **2006**, 35, 637-59		574
883	Influence of the growth morphology of single-walled carbon nanotubes on gas sensing performance. *Nanotechnology*, **2006**, 17, 4424-4430	3.4	18
882	Effect of ozone oxidation on single-walled carbon nanotubes. **2006**, 110, 7113-8		190

881	Carbon nanotube-enhanced capillary condensation for a capacitive humidity sensor. *Nanotechnology*, **2006**, 17, 5441-5448	3.4	94
880	Carbon Nanotubes Based Devices and Sensors. **2006**, 21, 710-716		12
879	Chemical functionalization of boron-nitride nanotubes with NH3 and amino functional groups. **2006**, 128, 12001-6		152
878	Ab initiostudy of F- and Cl-functionalized single wall carbon nanotubes. **2006**, 18, 5175-5184		13
877	Analysis of PD-generated SF/sub 6/ decomposition gases adsorbed on carbon nanotubes. **2006**, 13, 1200-1207		43
876	Interactions of hydrogen with Pd and Pd/Ni alloy chain-functionalized single walled carbon nanotubes from density functional theory. **2006**, 110, 22415-25		22
875	Carbon nanotubes functionalized by NO2: coexistence of charge transfer and radical transfer. **2006**, 110, 22462-70		26
874	True nanocable assemblies with insulating BN nanotube sheaths and conducting Cu nanowire cores. **2006**, 110, 2529-32		40
873	Density functional study of molecular hydrogen coverage on carbon nanotubes. **2006**, 35, 238-242		50
872	Polymerization of carbon nanotubes through self-irradiation. **2006**, 110, 23215-20		16
871	Adhesion of single functional groups to individual carbon nanotubes: Electronic effects probed by ab initio calculations. **2006**, 74,		11
870	The third-order optical nonlinearities of carbon nanotube modified conjugated polymer in the femtosecond and nanosecond regimes. **2006**, 100, 094301		10
869	Deposition and characterization of Langmuir-Blodgett films of cadmium arachidate/SWCNTs composites. **2006**, 38, 1285-1290		5
868	Density functional theory studies of quantum transport in molecular systems. **2006**, 106, 3334-3342		3
867	The effect of molecular oxygen on the thermal conductance of multi-walled nanotubes: a preliminary investigation. **2006**, 243, 3380-3384		1
866	On the origin of the high performance of MWNT-supported PtPd catalysts for the hydrogenation of aromatics. **2006**, 44, 84-98		88
865	Intermetallic catalyst for carbon nanotubes (CNTs) growth by thermal chemical vapor deposition method. **2006**, 44, 1808-1820		150
864	Optical properties and photonic devices of doped carbon nanotubes. **2006**, 568, 161-70		30

863	The physisorption of CH4 on graphite and on a (9,0) carbon nanotube. **2006**, 324, 455-458	45
862	Nanotube-based gas sensors □Role of structural defects. **2006**, 421, 58-62	123
861	Applicability of Dubinin□Astakhov equation to CO2 adsorption on single-walled carbon nanotubes. **2006**, 425, 306-310	38
860	Direct growth of the multi-walled carbon nanotubes as a tool to detect ammonia at room temperature. **2006**, 433, 175-181	52
859	Gas sensing properties of printed multiwalled carbon nanotubes using the field emission effect. **2006**, 433, 105-109	28
858	Flexible vapour sensors using single walled carbon nanotubes. **2006**, 113, 55-63	137
857	Effect of NH3 gas on the electrical properties of single-walled carbon nanotube bundles. **2006**, 113, 341-346	82
856	Behavior of single-walled carbon nanotube-based gas sensors at various temperatures of treatment and operation. **2006**, 117, 426-430	70
855	A carbon nanotube sensor array for sensitive gas discrimination using principal component analysis. **2006**, 593, 105-110	105
854	Energetics and electronic structure of acetylene molecules encapsulated inside a carbon nanotube: A density functional theory study. **2006**, 29, 150-152	2
853	Glycine adsorption on single-walled carbon nanotubes. **2006**, 509, 218-222	31
852	Role of defects in single-walled carbon nanotube chemical sensors. **2006**, 6, 1747-51	389
851	Effect of apical defects and doped atoms on field emission of boron nitride nanocones. **2006**, 110, 16346-52	22
850	Adsorption on the graphene surface of carbon nanotubes and their energy spectrum. **2006**, 48, 605-613	8
849	Amino acid adsorption on single-walled carbon nanotubes. **2006**, 38, 117-120	52
848	Adsorption pathways of singlet O2 on 4□carbon nanotubes. **2006**, 73,	14
847	Pore structures of multi-walled carbon nanotubes activated by air, CO2 and KOH. **2006**, 13, 141-146	44
846	Conductivity of single-walled carbon nanotubes deposited by composite electric-field guided assembly (CEGA) method. **2006**, 6, e161-e165	1

845	First-principles study of field emission properties of gas adsorption on the carbon nanotubes. **2006**, 330, 417-422		14
844	Adsorption on the carbon nanotubes. **2006**, 1, 317-322		5
843	Production of High Purity Multi-Walled Carbon Nanotubes from Catalytic Decomposition of Methane. **2006**, 15, 266-270		12
842	Application of principal component analysis to discriminate the Raman spectra of functionalized multiwalled carbon nanotubes. **2006**, 37, 1302-1306		33
841	Ab initiostudy of curvature effects on the physical properties of CH4-doped nanotubes and nanoropes. **2006**, 18, 4649-4675		17
840	NO Sensing Property of Carbon Nanotube Based Thin Film Gas Sensors Prepared by Chemical Vapor Deposition Techniques. **2006**, 45, 8393-8397		22
839	Electronic fluctuations in multi-walled carbon nanotubes. **2006**, 8, 31-31		7
838	Effect of alignment on adsorption characteristics of self-oriented multi-walled carbon nanotube arrays. *Nanotechnology*, **2006**, 17, 5136-5141	3.4	46
837	Ground states of diatomic molecules adsorbed on single-walled carbon nanotubes. **2006**, 74,		4
836	Carbon nanotubes as nanoelectromechanical systems components. **2006**, 361-488		1
835	Equivalent circuit model for carbon nanotube Schottky barrier: Influence of neutral polarized gas molecules. **2006**, 88, 083106		49
834	Ab initio study of the effect of water adsorption on the carbon nanotube field-effect transistor. **2006**, 89, 243110		60
833	Highly Selective NO[sub 2] Gas Sensors Made of MWCNTs and WO[sub 3] Hybrid Layers. **2007**, 154, J141		14
832	Chapter 10 Nano-confined water. **2007**, 18, 245-274		7
831	Property of NOx Gas Sensor Using Carbon Nanotube Prepared by Thermal CVD Method. **2007**, 124-126, 1253-1256		3
830	Synthesis of Ba-doped CeO(2) nanowires and their application as humidity sensors. *Nanotechnology* , **2007**, 18, 465504	3.4	62
829	Effects of polymer coating on the adsorption of gas molecules on carbon nanotube networks. **2007** , 91, 093126		22
828	Enhanced field emission from carbon nanotubes with a thin layer of low work function barium strontium oxide surface coating. **2007**, 25, 1785		9

827	Barium strontium oxide coated carbon nanotubes as field emitters. **2007**, 90, 143114		16
826	Finite-concentration gas molecule adsorption on carbon nanotubes investigated by a tight-binding approach. **2007**, 76,		9
825	Gas adsorption on a nanographite ribbon: Hybridization model and simulations. **2007**, 75,		6
824	Ab initio study of H2O and water-chain-induced properties of carbon nanotubes. **2007**, 75,		16
823	Structural and electronic properties of bundles of 4 Å carbon nanotubes. *Nanotechnology*, **2007**, 18, 445708	3.4	3
822	Energetics and electronic structures of AlN nanotubes/wires and their potential application as ammonia sensors. *Nanotechnology*, **2007**, 18, 424023	3.4	67
821	An investigation into the electrical properties of finite carbon nanotubes in the presence of polar molecules. **2007**, 41, 247-254		3
820	Infrared and Computational Studies of the Adsorption of Methanol and Ethanol on Single-Walled Carbon Nanotubes. **2007**, 111, 18127-18134		25
819	ZnO nanoparticle growth on single-walled carbon nanotubes by atomic layer deposition and a consequent lifetime elongation of nanotube field emission. **2007**, 90, 263104		46
818	Interaction of Water with Cap-Ended Defective and Nondefective Small Carbon Nanotubes. **2007**, 111, 18899-18905		8
817	Novel Method to Evaluate the Carbon Network of Single-Walled Carbon Nanotubes by Hydrogen Physisorption. **2007**, 111, 14937-14941		35
816	Fast humidity sensors based on CeO2nanowires. *Nanotechnology*, **2007**, 18, 145503	3.4	116
815	Practical Modeling of Heterogeneous Bundles of Single-Walled Carbon Nanotubes for Adsorption Applications: Estimating the Fraction of Open-Ended Nanotubes in Samples. **2007**, 111, 13747-13755		29
814	Adsorption and Surface Reactivity on Single-Walled Boron Nitride Nanotubes Containing Stone−Wales Defects. **2007**, 111, 14105-14112		104
813	Adsorption of simple benzene derivatives on carbon nanotubes. **2007**, 75,		175
812	Three technologies for a smart miniaturized gas-sensor: SOI CMOS, micromachining, and CNTs - challenges and performance. **2007**,		9
811	Carbon nanotubes for gas detection: materials preparation and device assembly. **2007**, 19, 225004		18
810	Transformation from chemisorption to physisorption with tube diameter and gas concentration: computational studies on NH3 adsorption in BN nanotubes. **2007**, 127, 184705		42

809	Nanostructures in environmental pollution detection, monitoring, and remediation. **2007**, 8, 47-59		138
808	Influence of co-catalyst on growth of carbon nanotubes using alcohol catalytic CVD method. **2007**, 82, 134-137		8
807	Hydrogen storage in carbon nanoscrolls: An atomistic molecular dynamics study. **2007**, 441, 78-82		59
806	Adsorptions of proton, hydroxide on various cap-ended and open-ended armchair (5,5) single-walled carbon nanotubes. **2007**, 441, 127-131		8
805	Effect of the nanostructure and surface chemistry on the gas adsorption properties of macroscopic multiwalled carbon nanotube ropes. **2007**, 45, 83-88		16
804	Enhanced electron emission from functionalized carbon nanotubes with a barium strontium oxide coating produced by magnetron sputtering. **2007**, 45, 587-593		88
803	Growth of novel carbon phases by methane infiltration of free-standing single-walled carbon nanotube films. **2007**, 45, 1085-1096		6
802	Computational study of B- or N-doped single-walled carbon nanotubes as NH3 and NO2 sensors. **2007**, 45, 2105-2110		166
801	Theoretical investigations on the functionalization of carbon nanotubes. **2007**, 360, 785-793		26
800	High-pressure behavior of TATB crystal by density functional theory. **2007**, 367, 383-388		41
799	Improved chemical detection using single-walled carbon nanotube network capacitors. **2007**, 135, 309-314		50
798	The transfer doping of graphite and graphene. **2007**, 204, 3078-3084		80
797	Effect of gases on the temperature dependence of the electric conductivity of CVD multiwalled carbon nanotubes. **2007**, 105, 155-159		1
796	Adsorption of O2on a (4, 2) carbon nanotube. *Nanotechnology*, **2007**, 18, 065704	3.4	20
795	Atomic oxygen chemisorption on the sidewall of zigzag single-walled carbon nanotubes. **2007**, 75,		10
794	Interaction of oxygen with 4 □arbon nanotubes. **2007**, 2, 171-177		
793	The role of defects in chemical sensing properties of carbon nanotube films. **2008**, 93, 495-504		18
792	Electrical characterization of the mutual influences between gas molecules and single-walled carbon nanotubes. **2008**, 4, 432-6		7

791	Drift effect of fluctuation enhanced gas sensing on carbon nanotube sensors. **2008**, 245, 2343-2346	5
790	Fluctuation enhanced gas sensing on functionalized carbon nanotube thin films. **2008**, 245, 2339-2342	7
789	Suspended and non-suspended carbon nanotube transistors for NO2 sensing □A qualitative comparison. **2008**, 245, 2326-2330	28
788	Highly Sensitive Thin Film Sensor Based on Worm-like Carbon Nanofibers for Detection of Ammonia in Workplace. **2008**, 26, 649-654	6
787	Real-Time Nitrophenol Detection Using Single-Walled Carbon Nanotube Based Devices. **2008**, 20, 558-562	22
786	Carbon nanotube gas and vapor sensors. **2008**, 47, 6550-70	676
785	Individual Water-Filled Single-Walled Carbon Nanotubes as Hydroelectric Power Converters. **2008**, 20, 1772-1776	148
784	Gas- und Dampfsensoren auf der Basis von Kohlenstoff-Nanor□ren. **2008**, 120, 6652-6673	32
783	Supramolecular Chemistry of Gases. **2008**, 205-246	3
782	Diffusion of small hydrocarbon radicals on the outer wall of a (9,0) carbon nanotube. **2008**, 40, 542-549	7
781	Development of carbon nanotube-based gas sensors for NOx gas detection working at low temperature. **2008**, 40, 2272-2277	81
780	Gas adsorption on a single walled carbon nanotube-model simulation. **2008**, 372, 3493-3495	18
779	Multiscale modeling with carbon nanotubes. **2008**, 39, 208-221	32
778	Gate modulation in carbon nanotube field effect transistors-based NH3 gas sensors. **2008**, 132, 191-195	38
777	Gas sensing properties of single-wall carbon nanotubes dispersed with dimethylformamide. **2008**, 135, 214-218	22
776	Molecular dynamic simulations of carbon nanotubes in CO2 atmosphere. **2008**, 460, 512-516	26
775	Methane adsorption inside and outside pristine and N-doped single wall carbon nanotubes. **2008**, 353, 79-86	47
774	Effect of laser irradiation on carbon nanotube films for NOx gas sensor. **2008**, 202, 5325-5328	24

773	Adsorption of H2O, NH3, CO, NO2, and NO on graphene: A first-principles study. **2008**, 77,	1277
772	Adsorption Kinetics of NO2on Single-Walled Carbon Nanotube Thin-Film Sensor. **2008**, 47, 8145-8147	18
771	Adsorption mechanisms of organic chemicals on carbon nanotubes. **2008**, 42, 9005-13	960
770	Theoretical study of the interactions of carbon monoxide with Rh-decorated (8,0) single-walled carbon nanotubes. **2008**, 110, 411-416	48
769	Bias-heating recovery of MWCNT gas sensor. **2008**, 62, 2422-2425	18
768	Vanadium oxide sensing layer grown on carbon nanotubes by a new atomic layer deposition process. **2008**, 8, 4201-4	98
767	First-principles studies of water adsorption on graphene: The role of the substrate. **2008**, 93, 202110	273
766	Carbon-Based Sensors. **2008**, 507-533	1
765	Adsorption of ascorbic acid on the C60 fullerene. **2008**, 112, 14267-72	21
764	Paramagnetic adsorbates on graphene: A charge transfer analysis. **2008**, 92, 243125	76
763	Simultaneous Spectroscopic and Solid-State Electronic Measurement of Single-Walled Carbon Nanotube Devices. **2008**, 112, 4430-4434	20
762	Silicon Carbide Nanotubes As Potential Gas Sensors for CO and HCN Detection. **2008**, 112, 15985-15988	121
761	Fabrication and characterization of carbon nanotube based high sensitive gas sensors operable at room temperature. **2008**, 17, 1586-1589	39
760	Tailoring gas sensing properties of carbon nanotubes. **2008**, 104, 024502	21
759	Dielectric relaxation of water clusters encapsulated in carbon nanotubes Computer simulation study. **2008**, 354, 4300-4303	9
758	Molecular doping of graphene. **2008**, 8, 173-7	907
757	Effects of the catalyst pretreatment on CO2 sensors made by carbon nanotubes. **2008**, 17, 624-627	18
756	Adsorption of linear chain molecules on carbon nanotubes. **2008**, 78,	14

755	Electron transport of nanotube-based gas sensors: An ab initio study. **2008**, 92, 022103	18
754	The non-covalent functionalisation of carbon nanotubes studied by density functional and semi-empirical molecular orbital methods including dispersion corrections. **2008**, 10, 128-35	28
753	Adsorption and hysteresis of bisphenol A and 17alpha-ethinyl estradiol on carbon nanomaterials. **2008**, 42, 5480-5	368
752	Dissociation of Water Molecules Induced by Charged-Defective Carbon Nanotubes. **2008**, 112, 4618-4621	5
751	Hydrogen storage capacities of nanoporous carbon calculated by density functional and M□ller-Plesset methods. **2008**, 78,	46
750	Electronic Properties of Adsorption Nitrogen Monoxide on Inside and Outside of the Armchair Single Wall Carbon Nanotubes: A Density Functional Theory Calculations. **2008**, 112, 3597-3604	25
749	Electronic Structures and Vibrational Properties of a Carbon Nanotube with Adsorption of Small Hydrocarbon Radicals. **2008**, 112, 18876-18881	10
748	Hydrogen Adsorption in Single-Walled Carbon Nanotubes. **2008**, 369-401	1
747	Adsorption of Dinitrogen Tetroxide (N2O4) on Multi-walled Carbon Nanotubes (MWCNTs). **2008**, 16, 154-164	9
746	The design of a low power carbon nanotube chemical sensor system. **2008**,	7
745	Interaction of narrow carbon nanotubes with nitronium tetrafluoroborate salts. **2008**, 128, 214703	5
744	Degradation of Vertically Aligned Carbon Nanotubes at Growth Interface Joints at High Temperatures and Its Impact on Electron Emission Properties. **2008**, 1137, 50901	1
743	Electronic properties of nanotube-based sensors: An inverse modeling approach. **2008**, 82, 27004	2
742	Improving the performance of functionalized carbon nanotube thin film sensors by fluctuation enhanced sensing. **2008**,	1
741	Dissociation Chemistry of Gas Molecules on Carbon Nanotubes□Applications to Chemical Sensing. **2008**, 8, 837-841	15
740	Metallic switching of semiconducting single-walled carbon nanotubes with ZnO thin film. **2008**, 92, 213501	3
739	Hydrogen storage in pure and Li-doped carbon nanopores: combined effects of concavity and doping. **2008**, 128, 144704	50
738	Determining the physisorption energies of molecules on graphene nanostructures by measuring the stochastic emission-current fluctuation. **2008**, 77, 031611	8

737	Controlled Ohmic and nonlinear electrical transport in inkjet-printed single-wall carbon nanotube films. **2008**, 77,		36
736	Composites of carbon nanotubes and non-polymeric materials for diagnosing lung cancer via breath samples. **2008**,		
735	A Review of Carbon Nanotubes-Based Gas Sensors. **2009**, 2009, 1-24		296
734	Carbon Nanotubes as Active Components for Gas Sensors. **2009**, 2009, 1-16		55
733	Coaxial nanocables of codoped double-walled carbon nanotubes. **2009**, 131, 214701		3
732	A comparative study of single- and multiwalled carbon nanotube sensitivity to ammonia. **2009**, 105, 014315		10
731	INVESTIGATION OF HYDROGEN ADSORPTION ON PLATINUM-DECORATED SINGLE-WALLED CARBON NANOTUBE USING MOLECULAR DYNAMICS SIMULATIONS. **2009**, 08, 425-432		2
730	Nanotubes and Nanorods on CMOS Substrates for Gas Sensing. **2009**,		2
729	Quantum-chemical modelling of the structural change of water due to its interaction with nanographene. **2009**, 47, 599-606		3
728	Energetics and electronic structure of a single copper atomic chain wrapped in a carbon nanotube: a first-principles study. **2009**, 18, 5468-5473		3
727	Sniffing out cancer in the breath: detection of non-polar volatile compounds through carrier scattering in random networks of carbon nanotubes. **2009**,		1
726	A nanoelectronic nose: a hybrid nanowire/carbon nanotube sensor array with integrated micromachined hotplates for sensitive gas discrimination. *Nanotechnology*, **2009**, 20, 125503	3.4	68
725	Ultrathin Films of Single-Walled Carbon Nanotubes for Electronics and Sensors: A Review of Fundamental and Applied Aspects. **2009**, 21, 29-53		919
724	Room-Temperature Gas Sensing Based on Electron Transfer between Discrete Tin Oxide Nanocrystals and Multiwalled Carbon Nanotubes. **2009**, 21, 2487-2491		260
723	Synthesis, Structure, and Properties of Single-Walled Carbon Nanotubes. **2009**, 21, 4565-4583		110
722	Adsorbent materials for carbon dioxide capture from large anthropogenic point sources. **2009**, 2, 796-854		1925
721	Porous single-wall carbon nanotube films formed by in Situ arc-discharge deposition for gas sensors application. **2009**, 135, 656-663		61
720	Adsorption of pairs of NOx molecules on single-walled carbon nanotubes and formation of NO+NO3 from NO2. **2009**, 603, 3234-3238		59

719	A first-principles study on the behavior of HCl inside SWCNT. **2009**, 905, 44-47		11
718	Studies on structural defects in carbon nanotubes. **2009**, 4, 297-306		12
717	Origin of spatial charge inhomogeneity in graphene. **2009**, 5, 722-726		574
716	Carbon nanotubes based transistors as gas sensors: State of the art and critical review. **2009**, 140, 304-318		225
715	Interaction kinetics of atoms and molecules on carbon nanotube surfaces. **2009**, 603, 1853-1862		5
714	Effect of the adsorption of oxygen on electronic structures and geometrical parameters of armchair single-wall carbon nanotubes: a density functional study. **2009**, 336, 1-12		17
713	Car□Parrinello simulation of initial growth stage of gallium nitride on carbon nanotubes. **2009**, 41, 1143-1146		3
712	Interaction of alkanethiols with single-walled carbon nanotubes: First-principles calculations. **2009**, 41, 1696-1700		9
711	Electron-stimulated defect formation in single-walled carbon nanotubes studied by hydrogen thermal desorption spectroscopy. **2009**, 256, 1196-1199		3
710	Adsorption kinetics of methanol in carbon nanotubes revisited □solvent effects and pitfalls in ultra-high vacuum surface science experiments. **2009**, 473, 131-134		10
709	Possible effect of carbon nanotube diameter on gas□surface interactions □The case of benzene, water, and n-pentane adsorption on SWCNTs at ultra-high vacuum conditions. **2009**, 476, 227-231		25
708	DNA-templated photo-induced silver nanowires: fabrication and use in detection of relative humidity. **2009**, 145, 91-7		23
707	The characterization and application of p-type semiconducting mesoporous carbon nanofibers. **2009**, 47, 1841-1845		28
706	Practical chemical sensors from chemically derived graphene. **2009**, 3, 301-6		1215
705	First-principle study on energetics and electronic structure of a single copper atomic chain bound in carbon nanotube. **2009**, 72, 119-126		16
704	Sorted and aligned single-walled carbon nanotube networks for transistor-based aqueous chemical sensors. **2009**, 3, 3287-93		131
703	Improving gas sensing properties of graphene by introducing dopants and defects: a first-principles study. *Nanotechnology*, **2009**, 20, 185504	3.4	732
702	Spongelike structures of hexa-peri-hexabenzocoronene derivatives enhance the sensitivity of chemiresistive carbon nanotubes to nonpolar volatile organic compounds of cancer. **2009**, 25, 5411-6		38

701	Syngas Segregation Induced by Confinement in Carbon Nanotubes: A Combined First-Principles and Monte Carlo Study. **2009**, 113, 21687-21692		51
700	Comparison of Electronic and Magnetic Properties of Fe, Co, and Ni Nanowires Encapsulated in Boron Nitride Nanotubes. **2009**, 113, 17745-17750		23
699	The effect of Fe doping on adsorption of CO2/N2 within carbon nanotubes: a density functional theory study with dispersion corrections. *Nanotechnology*, **2009**, 20, 375701	3.4	19
698	Adsorption and reactivity of CO(2) on defective graphene sheets. **2009**, 113, 493-8		93
697	Gas sensors based on deposited single-walled carbon nanotube networks for DMMP detection. *Nanotechnology*, **2009**, 20, 345502	3.4	88
696	Adsorption of ammonia on graphene. *Nanotechnology*, **2009**, 20, 245501	3.4	160
695	The study of a carbon nanotube O2 sensor by field emission treatment. **2009**, 18, 461-464		8
694	Density functional theory based treatment of amino acids adsorption on single-walled carbon nanotubes. **2009**, 18, 662-668		64
693	Investigation of liquid sensing mechanism of poly(lactic acid)/multi-walled carbon nanotube composite films. **2009**, 18, 035008		51
692	Carbon Nanotube Electronics. **2009**,		14
691	The van der Waals coefficients between carbon nanostructures and small molecules: A time-dependent density functional theory study. **2009**, 131, 164708		13
690	The impacts of aggregation and surface chemistry of carbon nanotubes on the adsorption of synthetic organic compounds. **2009**, 43, 5719-25		130
689	Can Silicon Carbide Nanotubes Sense Carbon Dioxide?. **2009**, 5, 1099-105		89
688	Sensing mechanisms for carbon nanotube based NH3 gas detection. **2009**, 9, 1626-30		191
687	Detection of nonpolar molecules by means of carrier scattering in random networks of carbon nanotubes: toward diagnosis of diseases via breath samples. **2009**, 9, 1362-8		120
686	Morphological, structural, and chemical effects in response of novel carbide derived carbon sensor to NH3, N2O, and air. **2009**, 25, 582-8		13
685	The controlled deposition of metal oxides onto carbon nanotubes by atomic layer deposition: examples and a case study on the application of V2O4 coated nanotubes in gas sensing. **2009**, 11, 3615-22		49
684	Immobilization of leucine on polypyrrole for biosensor applications: A density functional theory study. **2009**,		

683	A Theoretical ab Initio Study on Functionalized Single-walled Carbon Nanotubes as a Molecular Absorbent. **2009**, 17, 390-400		3
682	A 32-mu W 1.83-kS/s Carbon Nanotube Chemical Sensor System. **2009**, 44, 659-669		27
681	Nanowire and nanotube transistors for lab-on-a-chip applications. **2009**, 9, 2267-80		43
680	Preparation of single-walled carbon nanotube/TiO2 hybrid atmospheric gas sensor operated at ambient temperature. **2009**, 18, 493-496		38
679	Carbon nanotube reservoirs for self-healing materials. *Nanotechnology*, **2009**, 20, 335704	3.4	76
678	Nox sensing characteristics of single wall carbon nanotube gas sensor prepared by pulsed laser ablation. **2009**, 4, 186		4
677	Solid-State Gas Sensors. **2010**, 1-42		
676	First Principles Simulation of Molecular Oxygen Adsorption on SiC Nanotubes. **2010**, 53, 742-748		20
675	A novel carbon-nanotube gas sensor based on field ionization from branched nanostructures. **2010**, 52, 30602		6
674	Graphene Films and Ribbons for Sensing of O2, and 100 ppm of CO and NO2 in Practical Conditions. **2010**, 114, 6610-6613		186
673	Calculations of Encapsulation of Amino Acids Inside the (13, 0) Single-walled Carbon Nanotube. **2010**, 18, 24-36		18
672	Electrochemical investigation of NO at single-wall carbon nanotubes modified electrodes. **2010**, 122, 401-408		2
671	Structural, thermal, and electrical properties of carbonaceous films containing palladium nanocrystals. **2010**, 101, 737-742		14
670	Theoretical investigation of the interaction between carbon monoxide and carbon nanotubes with single-vacancy defects. **2010**, 11, 3505-10		12
669	Canonical Monte Carlo simulation of adsorption of O2 and N2 mixture on single walled carbon nanotube at different temperatures and pressures. **2010**, 31, 1443-9		22
668	Soft X-Ray Absorption and Emission Spectroscopy in the Studies of Nanomaterials. **2010**, 211-254		2
667	Atomistic calculation of adsorption in activated carbon with pore-size distribution. **2010**, 342, 445-54		10
666	Structural, electronic and magnetic properties of Fe nanowires encapsulated in boron nitride nanotubes. **2010**, 405, 1035-1039		15

665	Dissociation of methane on the surface of charged defective carbon nanotubes. **2010**, 374, 1534-1538	22
664	Novel resistive-type humidity sensor based on multiwall carbon nanotube/polyimide composite films. **2010**, 145, 120-125	169
663	Highly sensitive hydrogen gas sensors using single-walled carbon nanotubes grafted with Pd nanoparticles. **2010**, 146, 122-128	46
662	Theoretical studies of chemisorption of NO2 molecules on SiC nanotube. **2010**, 604, 1882-1888	20
661	Understanding the scattering mechanism of single-walled carbon nanotube based gas sensors. **2010**, 48, 1970-1976	12
660	Carbon Nanotubes Based Transistors as Gas Sensors: Patent Review. **2010**, 3, 55-65	1
659	Universality in adsorbate ordering on nanotube surfaces. **2010**, 82,	1
658	. **2010**,	0
657	Field emission behavior study of multiwalled carbon nanotube yarn under the influence of adsorbents. **2010**, 28, 736-739	11
656	Low-temperature radial thermal expansion of single-walled carbon nanotube bundles saturated with nitrogen. **2010**, 36, 365-369	9
655	Oxygen plasma effects on the electrical conductance of single-walled carbon nanotube bundles. **2010**, 43, 305402	17
654	Comparative Study on Gas Adsorption in Defected Carbon and Boron Nitride Nanotube. **2010**, 6, 131-136	11
653	Adsorption of dialkyl phthalate esters on carbon nanotubes. **2010**, 44, 6985-91	129
652	Oxygen-driven surface segregation of lithium from single-wall carbon nanotubes. **2010**, 19, 1362-1365	
651	Graphene-based ultra-sensitive gas sensors. **2010**,	8
650	Tuning the electronic structure and transport properties of graphene by noncovalent functionalization: effects of organic donor, acceptor and metal atoms. *Nanotechnology*, **2010**, 21, 065201[3,4]	104
649	Molecular Simulation to Rationalize Structure-Property Correlation of Carbon Nanotube. **2010**, 143-164	
648	Modeling of gas adsorption on graphene nanoribbons. **2010**, 107, 114309	53

647	Molecular doping and subsurface dopant reactivation in si nanowires. **2010**, 10, 3590-5		34
646	Cause and consequence of carbon nanotube doping in water and aqueous media. **2010**, 132, 1572-7		41
645	Influence of electrostatic interactions on spin-assembled single-walled carbon nanotube networks on amine-functionalized surfaces. **2010**, 4, 1167-77		48
644	Effects of O2, Xe, and Gating on the Photoconductivity and Persistent Photoconductivity of Porphyrin Nanorods. **2010**, 114, 19227-19233		18
643	DFT study of NH3(H2O)n=0,1,2,3 complex adsorption on the (8, 0) single-walled carbon nanotube. **2010**, 48, 655-657		11
642	Fabrication of humidity sensors by multi-walled carbon nanotubes. **2010**, 5, 302-309		18
641	Introduction to Carbon Nanotubes. **2010**, 47-118		13
640	Single-file diffusion of confined water inside SWNTs: an NMR study. **2010**, 4, 1687-95		79
639	Sorbents for CO(2) capture from flue gas--aspects from materials and theoretical chemistry. **2010**, 2, 1819-41		202
638	Hydrogen and Hydrogen Clusters Across Disciplines. **2010**, 299-342		
637	Self-assembled copolymeric nanoparticles as chemically interactive materials for humidity sensors. *Nanotechnology*, **2010**, 21, 355502	3.4	21
636	Interaction of Methane with Single-Walled Carbon Nanotubes: Role of Defects, Curvature and Nanotubes Type. **2010**, 53, 987-993		14
635	The bridge between first-principles calculations and grand canonical Monte Carlo simulations: Morse and Lennard-Jones force fields. **2010**, 36, 1157-1163		1
634	An MWCNT-doped SNO2thin film NO2gas sensor by RF reactive magnetron sputtering. **2010**, 31, 024006		13
633	Graphene on a hydrophobic substrate: doping reduction and hysteresis suppression under ambient conditions. **2010**, 10, 1149-53		355
632	Detecting oil dissolved gases using carbon nanotubes sensor. **2010**,		2
631	Detection of a nerve agent simulant using single-walled carbon nanotube networks: dimethyl-methyl-phosphonate. *Nanotechnology*, **2010**, 21, 495501	3.4	17
630	Sensing gases with carbon nanotubes: a review of the actual situation. **2010**, 22, 013001		70

629	Gas sensor for CO and NH3 using polyaniline/CNTs composite at room temperature. **2010**,	3
628	Humidity-assisted selective reactivity between NO2 and SO2 gas on carbon nanotubes. **2011**, 21, 4502	48
627	. **2011**, 11, 1913-1916	2
626	Nanotechnology Enables Wireless Gas Sensing. **2011**, 12, 84-95	27
625	CO2 adsorption by nitrogen-doped carbon nanotubes predicted by density-functional theory with dispersion-correcting potentials. **2011**, 13, 2780-7	27
624	Open Carbon Nanocones as Candidates for Gas Storage. **2011**, 115, 24528-24533	28
623	Photonic Responses of Devices Based on Horizontally Aligned and Network Single-Walled Carbon Nanotubes and the Effect of Environmental Gas on Device Performance. **2011**, 11, 3227-3234	
622	Ab initiosimulation of helium inside carbon nanotubes. **2011**, 324, 012040	4
621	A Triplet Form of (5,0) Carbon Nanotube with Higher Hydrogen Storage Capacity. **2011**, 115, 9227-9231	10
620	Ambient carbon dioxide capture by boron-rich boron nitride nanotube. **2011**, 133, 2084-7	129
619	Use of Carbon Nanotubes in Water Treatment. **2011**, 321-368	3
618	Adsorption of Rare-Gas Atoms and Water on Graphite and Graphene by van der Waals-Corrected Density Functional Theory. **2011**, 115, 3695-3702	99
617	A Chemical Gas Sensor from Large-Scale Thermal CVD Derived Graphene. **2011**, 1303, 105	6
616	CO2 adsorption on carbon models of organic constituents of gas shale and coal. **2011**, 45, 809-14	146
615	Novel Chemical Sensor for CO and NO: Silicon Nanotube. **2011**, 115, 12015-12022	28
614	INVESTIGATION OF POLYCHLORINATED BIPHENYLS (PCBs) REMOVAL BY SIGNAL WALLED CARBON NANOTUBES: STUDIES. **2011**, 10, 651-657	4
613	Study of Adsorption Properties of O2, CO2, NO2 and SO2 on Si-Doped Carbon Nanotube Using Density Functional Theory. **2011**, 110-116, 315-320	
612	Carbon and Oxide Nanostructures. **2011**,	14

611	Silicon Carbide Nanotubes Serving as a Highly Sensitive Gas Chemical Sensor for Formaldehyde. **2011**, 115, 10388-10393	71
610	Methane in carbon nanotube: molecular dynamics simulation. **2011**, 109, 1691-1699	19
609	C60-DOM interactions and effects on C60 apparent solubility: a molecular mechanics and density functional theory study. **2011**, 37, 1078-82	33
608	Physics and applications of aligned carbon nanotubes. **2011**, 60, 553-678	108
607	Calcium-Based Functionalization of Carbon Materials for CO2 Capture: A First-Principles Computational Study. **2011**, 115, 10990-10995	46
606	Field Emission from Graphene Nanosheets. **2011**,	
605	Catalytic NOx removal by single-wall carbon nanotube-supported Rh nanoparticles. **2011**, 194, 144-55	16
604	Metal (Pd, Pt)-decorated carbon nanotubes for CO and NO sensing. **2011**, 159, 171-177	69
603	Gas adsorption effects on the electrical conductivity of semiconducting carbon nanotubes. **2011**, 44, 454-459	1
602	Synthesis of Mn-doped CeO2 nanorods and their application as humidity sensors. **2011**, 34, 1033-1037	27
601	Electronic and optical properties of the H2O adsorbed the B-N-C nanotubes. **2011**, 81, 133-136	4
600	An ab initio study on gas sensing properties of graphene and Si-doped graphene. **2011**, 81, 475-479	117
599	Predicting helium and neon adsorption and separation on carbon nanotubes by Monte Carlo simulation. **2011**, 17, 785-94	13
598	Adsorption properties of OCN radical on (6,0), (8,0), and (10,0) zigzag single-walled carbon nanotubes: a density functional study. **2011**, 142, 1-4	20
597	Adsorption properties of N2O on (6,0), (7,0), (8,0), and Al-doped (6,0) zigzag single-walled carbon nanotubes: a density functional study. **2011**, 142, 573-578	14
596	Adsorption properties of SCN□on (6,0), (7,0), (8,0), and Al-doped (6,0) zigzag single-walled carbon nanotubes: a density functional study. **2011**, 142, 979-984	8
595	Adsorption behavior of epirubicin hydrochloride on carboxylated carbon nanotubes. **2011**, 405, 153-61	87
594	Carbon nanotubes as adsorbents in environmental pollution management: A review. **2011**, 170, 395-410	818

593	Metal-decorated defective BN nanosheets as hydrogen storage materials. **2011**, 6, 224-230	4
592	Noxious gas detection using carbon nanotubes with Pd nanoparticles. **2011**, 6, 605	8
591	A simple theoretical approach to designing nanotube-based sensors. **2011**, 248, 686-693	1
590	Selective differential ammonia gas sensor based on N-doped SWCNT films. **2011**, 248, 2462-2466	15
589	Hydrogen storage in nanotubes & nanostructures. **2011**, 14, 324-328	99
588	Gas Sensing Mechanism of Gold Nanoparticles Decorated Single-Walled Carbon Nanotubes. **2011**, 23, 2687-2692	39
587	Density functional theory study of carbon monoxide adsorption on the inside and outside of the armchair single-walled carbon nanotubes. **2011**, 11, 776-782	32
586	Gas sensors based on thick films of semi-conducting single walled carbon nanotubes. **2011**, 49, 3544-3552	64
585	Structural, electronic and magnetic properties of GaN nanotubes filled with nickel nanowires. **2011**, 963, 18-23	8
584	Filtering carbon dioxide through carbon nanotubes. **2011**, 506, 81-85	30
583	First-principles study on structural and electronic properties of copper nanowire encapsulated into GaN nanotube. **2011**, 406, 3502-3507	8
582	Fast response resistive humidity sensitivity of polyimide/multiwall carbon nanotube composite films. **2011**, 152, 99-106	94
581	Electronic chip based on self-oriented carbon nanotube microelectrode array to enhance the sensitivity of indoor air pollutants capacitive detection. **2011**, 153, 103-109	20
580	Lithium adsorption on armchair graphene nanoribbons. **2011**, 605, 1633-1642	27
579	Heterogeneous integration of carbon nanotubes and graphene microassemblies for environmental and breath sensing. **2011**,	0
578	Ammonia Adsorption on SiC Nanotubes: A Density Functional Theory Investigation. **2011**, 19, 289-299	16
577	Classical Molecular Dynamics. **2011**, 519-551	
576	. **2011**,	2

575	Electromechanical resonance behavior of suspended single-walled carbon nanotubes under high bias voltages. **2011**, 21, 085008	2
574	Coadsorption of CO and O on H-Capped (6, 0) Single-Walled Carbon Nanotube: A Density Functional Study. **2012**, 20, 233-242	2
573	Atomistic Modeling of Gas Adsorption in Nanocarbons. **2012**, 2012, 1-32	7
572	Methane Storage in Spherical Fullerenes. **2012**, 3,	2
571	Carbon Nanotube- and Graphene-based Sensors for Environmental Applications. **2012**, 621-645	1
570	Pt-decorated graphene as superior media for H2S adsorption: A first-principles study. **2012**, 261, 697-704	92
569	Comprehensive Study on the Dissociative Chemisorption of NH3 on the Sidewalls of Stone□Wales Defective Armchair (5,5) Single-Walled Carbon Nanotubes. **2012**, 116, 6012-6021	27
568	Post-Combustion CO2 Capture Using Solid Sorbents: A Review. **2012**, 51, 1438-1463	1288
567	Simulation study on the adsorption properties of linear alkanes on closed nanotube bundles. **2012**, 116, 9812-9	15
566	Synthesis, characterization, electronic and gas-sensing properties towards H2 and CO of transparent, large-area, low-layer graphene. **2012**, 18, 14996-5003	18
565	Nitrate adsorption by carbon nanotubes in the vacuum and aqueous phase. **2012**, 143, 1623-1626	65
564	Carbon nanotubes/carbon xerogel-nafion electrodes: a comparative study of preparation methods. **2012**, 16, 3777-3782	5
563	Adsorption of Natural Organic Matter Surrogates from Aqueous Solution by Multiwalled Carbon Nanotubes. **2012**, 116, 25783-25789	17
562	The Al-Doped Carbon Nanotubes: A DFT Study. **2012**, 20, 681-687	15
561	Thickness dependent sensing mechanism in sorted semi-conducting single walled nanotube based sensors. **2012**, 137, 2151-7	24
560	Alignment of Single-Walled Carbon Nanotubes with Ferroelectric Liquid Crystal. **2012**, 116, 16694-16699	4
559	Flexible, all-organic chemiresistor for detecting chemically aggressive vapors. **2012**, 134, 4553-6	133
558	Probing Electronic Doping of Single-Walled Carbon Nanotubes by Gaseous Ammonia with Dielectric Force Microscopy. **2012**, 3, 3509-12	4

557	Methane molecule over the defected and rippled graphene sheet. **2012**, 152, 1493-1496	16
556	Properties and Applications of Aligned Carbon Nanotube Arrays. **2012**, 183-253	
555	First-principles study of CO and NO adsorption on transition metals doped (8,0) boron nitride nanotube. **2012**, 258, 6391-6397	110
554	Preparation of nanosensors based on organic functionalized MWCNT for H2S detection. **2012**, 259, 159-165	26
553	Hydrogen Storage. **2012**, 157-177	1
552	NH3 molecular doping of silicon nanowires grown along the [112], [110], [001], and [111] orientations. **2012**, 7, 308	20
551	Activation of gold decorated carbon nanotube hybrids for targeted gas adsorption and enhanced catalytic oxidation. **2012**, 22, 9374	29
550	Effects of surface heterogeneity on the adsorption of CO□n microporous carbons. **2012**, 46, 1940-7	189
549	Methane and carbon dioxide adsorption on edge-functionalized graphene: a comparative DFT study. **2012**, 137, 054702	89
548	Fast and selective room-temperature ammonia sensors using silver nanocrystal-functionalized carbon nanotubes. **2012**, 4, 4898-904	144
547	Methane storage in molecular nanostructures. **2012**, 4, 3295-307	24
546	Molecular simulation of CO2 adsorption in micro- and mesoporous carbons with surface heterogeneity. **2012**, 104, 83-95	129
545	The role of van der Waals interactions in the adsorption of noble gases on metal surfaces. **2012**, 24, 424211	35
544	Ag nanocrystal as a promoter for carbon nanotube-based room-temperature gas sensors. **2012**, 4, 5887-94	68
543	Mn-doped zinc oxide nanopowders for humidity sensors. **2012**, 174, 258-262	22
542	Theoretical study of cyano radical adsorption on (6,0) zigzag single-walled carbon nanotube. **2012**, 143, 1463-1470	14
541	Chlorination of carbon nanotubes. **2012**, 85,	12
540	Ab-initio calculations for a realistic sensor: A study of CO sensors based on nitrogen-rich carbon nanotubes. **2012**, 2, 032115	4

539	Feasibility of Single-Walled Carbon Nanotubes as Materials for CO2 Adsorption: A DFT Study. **2012**, 116, 21083-21092	26
538	Strain-engineered graphene through a nanostructured substrate. I. Deformations. **2012**, 85,	54
537	Nanoscale diodes composed of single-walled carbon nanotube and physically adsorbed organic molecule nanoparticles. **2012**,	1
536	First-principles investigation of H2O adsorption on a BN co-doped nanotube. **2012**, 249, 69-73	2
535	Structural and electronic properties of conducting Cu nanowire encapsulated in semiconducting zigzag carbon nanotubes: A first-principles study. **2012**, 249, 1033-1038	7
534	Gas flow and heat transfer in nanotube and nanowire arrays. **2012**, 24, 032003	1
533	Effect of van der Waals interaction on energetics and transport properties of a single anthracene molecule adsorbed or confined inside a carbon nanotube. **2012**, 85,	5
532	Controlled conductive junction gap for chitosan□carbon nanotube quantum resistive vapour sensors. **2012**, 22, 10656	48
531	Using evolutionary algorithms for fitting high-dimensional models to neuronal data. **2012**, 10, 199-218	13
530	Carbon monoxide adsorption on transition element-doped single wall carbon nanotube. **2012**, 86, 677-680	9
529	Carbon dioxide detection by boron nitride nanotubes. **2012**, 108, 283-289	20
528	Hydrogen sulfide sensing properties of multi walled carbon nanotubes. **2012**, 38, 65-75	17
527	Elaboration of SWNTs-based gas sensors using dispersion techniques: Evaluating the role of the surfactant and its influence on the sensor response. **2012**, 162, 95-101	10
526	Van der Waals energy surface of a carbon nanotube sheet. **2012**, 152, 225-230	3
525	Elaboration of single wall carbon nanotubes-based gas sensors: Evaluating the bundling effect on the sensor performance. **2012**, 520, 4465-4469	20
524	The electrical conduction variation in stained carbon nanotubes. **2012**, 44, 803-807	5
523	Gas Sensing performance of composite materials using conducting polymer/single-walled carbon nanotubes. **2012**, 20, 143-146	31
522	Gas adsorption on the Zn-, Pd- and Os-doped armchair (5,5) single-walled carbon nanotubes. **2012**, 18, 351-8	18

521	Carbon Nanotubes With Adsorbed Au for Sensing Gas. **2013**, 13, 2423-2427		33
520	Direct imaging of charged impurity density in common graphene substrates. **2013**, 13, 3576-80		60
519	High electrical conductance enhancement in Au-nanoparticle decorated sparse single-wall carbon nanotube networks. *Nanotechnology*, **2013**, 24, 305202	3.4	12
518	Detection of hydrogen peroxide with graphyne. **2013**, 54, 177-180		18
517	A DFT study on electronic structure and local reactivity descriptors of pristine and carbon-substituted AlN nanotubes. **2013**, 91, 711-717		3
516	High performance flexible sensor based on inorganic nanomaterials. **2013**, 176, 522-533		64
515	Multi-walled carbon nanotube-impregnated agarose film microextraction of polycyclic aromatic hydrocarbons in green tea beverage. **2013**, 106, 200-5		39
514	The study of the effect of increasing adsorbed hydrogen's atomic percentage on electronic properties of boron-nitride nanotube. **2013**, 53, 168-172		5
513	Carbon nanotube-based SAW sensors. **2013**,		4
512	Adsorption of natural organic matter analogues by multi-walled carbon nanotubes: Comparison with powdered activated carbon. **2013**, 219, 450-458		56
511	Lithium-Mediated Benzene Adsorption on Graphene and Graphene Nanoribbons. **2013**, 130916143804002		5
510	Ab initio study of NH3 and H2O adsorption on pristine and Na-doped MgO nanotubes. **2013**, 24, 165-170		76
509	First-Principles Studies of Photoinduced Charge Transfer in Noncovalently Functionalized Carbon Nanotubes. **2013**, 117, 17909-17918		12
508	New insights in the adsorption of oxygen molecules on single walled carbon nanotubes. **2013**, 79, 656-662		6
507	Fast and accurate computational modeling of adsorption on graphene: a dispersion interaction challenge. **2013**, 15, 18815-21		56
506	Gas adsorption studies of CO2 and N2 in spatially aligned double-walled carbon nanotube arrays. **2013**, 61, 616-623		56
505	Non-Debye dipolar relaxation of ethylene glycol embedded in ZSM-5 zeolite host matrix Computer simulation study. **2013**, 364, 28-33		7
504	Adsorption of gas molecules on monolayer MoS2 and effect of applied electric field. **2013**, 8, 425		457

503	Highly sensitive, transparent, and flexible gas sensors based on gold nanoparticle decorated carbon nanotubes. **2013**, 188, 571-575	62
502	Adsorption of CH4 on nitrogen- and boron-containing carbon models of coal predicted by density-functional theory. **2013**, 285, 190-197	55
501	Adsorption sensitivity of zigzag GeC nanotube towards N2, CO, SO2, HCN, NH3, and H2CO molecules. **2013**, 577, 107-113	18
500	Can CO2 molecule adsorb effectively on Al-doped boron nitride single walled nanotube?. **2013**, 285, 350-356	39
499	A facile method to tune electronic properties of carbon nanotube films. **2013**, 106, 137-140	14
498	CO adsorption on a zigzag SiC nanotube: effects of concentration density and local torsion on transport. **2013**, 15, 1	8
497	Exploring surface reactivity of phosphorous-doped (6,0) and (4,4) BC3 nanotubes: a DFT study. **2013**, 19, 4877-86	7
496	First-principles study of H2 adsorption on the pristine and oxidized (8,0) carbon nanotube. **2013**, 38, 13680-13686	39
495	Fe-Doped Armchair Graphene Nanoribbons for Spintronic/Interconnect Applications. **2013**, 12, 685-691	39
494	First-principles calculations of Pd-terminated symmetrical armchair graphene nanoribbons. **2013**, 68, 18-22	26
493	Computational study of Al- or P-doped single-walled carbon nanotubes as NH3 and NO2 sensors. **2013**, 285, 102-109	27
492	Comparative Study of Adsorption of O2, CO2, NO2 and SO2 on Pristine and Si-Doped Carbon Nanotubes. **2013**, 678, 179-184	0
491	Hydrogen storage capacity of carbon nanotubes □ Irradiated in hydrogen and deuterium media. **2013**,	2
490	Interactions of iron-oxide filled carbon nanotubes with gas molecules. **2013**, 15, 14340-6	2
489	Single-walled carbon nanotube networks for ethanol vapor sensing applications. **2013**, 6, 77-86	31
488	DFT Study of the Interactions of Carbon Monoxide with Pd-Decorated (6,0) Single-Walled Carbon Nanotube. **2013**, 21, 12-18	3
487	Identification of the Effect of Cobalt Contents on Effective Synthesis of Carbon Nanotubes from Methane Decomposition. **2013**, 21, 75-87	7
486	Changes in the electrical resistance of oriented graphitic carbon films induced by atomic hydrogen. **2013**, 1, 402-407	6

485	Theoretical Study of (CO) n=1, 2 Adsorption on the (6,0) Zigzag Single-walled Carbon Nanotube. **2013**, 21, 117-124	1
484	Fast-speed, high-sensitivity polyimide humidity sensors with superhydrophilic carbon nanotube network electrodes. **2013**, 185, 97-104	13
483	Platinum Electrodeposition on Unsupported Single Wall Carbon Nanotubes and Its Application as Methane Sensing Material. **2012**, 160, H98-H104	26
482	Detection of a CO and NH3 gas mixture using carboxylic acid-functionalized single-walled carbon nanotubes. **2013**, 8, 12	50
481	Vibrational and electronic structure analysis of a carbon dioxide interaction with functionalized single-walled carbon nanotubes. **2013**, 117, 2854-61	17
480	Confinement effects and why carbon nanotube bundles can work as gas sensors. **2013**, 5, 2798-803	22
479	Electrical conductivity of carbon nanotubes grown inside a mesoporous anodic aluminium oxide membrane. **2013**, 55, 10-22	31
478	Multi-walled carbon nanotubes for volatile organic compound detection. **2013**, 182, 344-350	36
477	Development of MWCNTs/alumina composite-based sensor for trace level ammonia gas sensing. **2013**, 111, 965-974	10
476	A comparative theoretical study of CO2 sensing using inorganic AlN, BN and SiC single walled nanotubes. **2013**, 185, 512-522	32
475	Copper Encapsulation of Multi-Walled Carbon Nanotubes. **2013**, 1-39	
474	Experimental and theoretical comparison of gas desorption energies on metallic and semiconducting single-walled carbon nanotubes. **2013**, 135, 7768-76	20
473	Functionalization of carbon nanotubes with -CH(n), -NH(n) fragments, -COOH and -OH groups. **2013** , 138, 194704	44
472	Fabrication of a room temperature hydrogen sensor based on thin film of single-walled carbon nanotubes doped with palladium nanoparticles. **2013**, 8, 717-730	6
471	All carbon nanotubes and freestanding air electrodes for rechargeable Li–air batteries. **2013**, 3, 8236	21
470	Theoretical investigation of CO2 and NO2 adsorption onto Co-, Rh- and Ir-doped (5,5) single-walled carbon nanotubes. **2013**, 138, 709-715	14
469	Chemical modification of graphene with a thermotropic liquid crystalline polymer and its reinforcement effect in the polymer matrix. **2013**, 4, 2598	13
468	Transfer of microstructure pattern of CNTs onto flexible substrate using hot press technique for sensing applications. **2013**, 48, 2804-2808	18

467	Diameter and chirality effects of narrow SWCNTs on molecular hydrogenation. **2013**, 38, 4618-4621	4
466	Forced assembly of water-dispersible carbon nanotubes trapped in paper for cheap gas sensors. **2013**, 9, 3759-64	24
465	Removal of strongly-bound gases from single-walled carbon nanotubes without annealing or ultraviolet light exposure. **2013**, 60, 498-505	9
464	Influence of oxygen/sulfur-termination on electronic structure and surface electrostatic potential of (6,0) carbon nanotube: a DFT study. **2013**, 24, 1571-1578	7
463	A DFT study of gas molecules adsorption on the anatase (001) nanotube arrays. **2013**, 67, 174-181	35
462	Functionalized carbon nanotubes for the discrimination of volatile organic compounds. **2013**,	0
461	Structural and electronic properties of BeO nanotubes filled with Cu nanowires. **2013**, 86, 1	3
460	Coated and functionalised single-walled carbon nanotubes (SWCNTs) as gas sensors. **2013**, 356-385	2
459	Electronic Properties of Boron and Silicon Doped (10, 0) Zigzag Single-Walled Carbon Nanotube upon Gas Molecular Adsorption: A DFT Comparative Study. **2013**, 2013, 1-12	8
458	The effects of nanoscale geometry and spillover on room temperature storage of hydrogen on silica nanosprings. **2013**, 46, 505307	5
457	Ultrahigh humidity sensitivity of graphene oxide. **2013**, 3, 2714	427
456	HELIUM ADSORPTION ON CARBON NANOTUBE BUNDLES WITH DIFFERENT DIAMETERS: MOLECULAR DYNAMICS SIMULATION. **2013**,	
455	Mechanics and Multidisciplinary Study for Creating Graphene-Based van der Waals Nano/Microscale Devices. **2013**, 87-104	
454	A remote sensor for detecting methane based on palladium-decorated single walled carbon nanotubes. **2013**, 13, 8814-26	18
453	Theoretical calculation of the gas-sensing properties of Pt-decorated carbon nanotubes. **2013**, 13, 15159-71	47
452	Ab InitioDensity Functional Theory Investigation of the Interaction between Carbon Nanotubes and Water Molecules during Water Desalination Process. **2013**, 2013, 1-6	3
451	Interfacial Strength Between Single Wall Carbon Nanotubes and Copper Material: Molecular Dynamics Simulation. **2013**, 4,	10
450	Gas Sensors Based on Deposited Single-Walled Carbon Nanotubes-Polypyrrole Networks for Ammonia Detection. **2013**, 815, 501-507	3

449	The heat capacity of nitrogen chain in grooves of single-walled carbon nanotube bundles. **2013**, 39, 441-445	15
448	. **2013**, 12, 255-262	37
447	Role of growth morphology on the terahertz response of vertically aligned carbon nanotubes. **2013** ,	
446	Interaction mechanism of CO2 ambient adsorption on transition-metal-coated boron sheets. **2013**, 19, 2942-6	15
445	Hybrid platinum nanobox/carbon nanotube composites for ultrasensitive gas sensing. **2013**, 9, 3928-33	20
444	Functionalised multi-walled carbon nanotubes for chemical vapour detection. **2013**, 10, 485	11
443	Selective Sensing Characteristics of Ca Doped BeO Nano-sized Tube toward H2O and NH3. **2013**, 26, 612-616	3
442	Adsorption of Molecular Gases on Silver/Carbon Nanotube Composites at Low Temperatures and Low Pressures. **2014**, 2014, 1-7	2
441	Development of Prototype Laboratory Setup for Selective Detection of Ethylene Based on Multiwalled Carbon Nanotubes. **2014**, 2014, 1-6	13
440	Advances in NO2 sensing with individual single-walled carbon nanotube transistors. **2014**, 5, 2179-91	23
439	Single-walled carbon nanotube networks in conductive composite materials. **2014**, 173, 365-77	12
438	Different sensing mechanisms in single wire and mat carbon nanotubes chemical sensors. **2014**, 117, 2107-2113	3
437	Properties of Carbon Nanotubes. **2014**, 1-49	2
436	Comparative study of methane(CH4) adsorption on (12,0) and (5,5) bamboo like carbon nano tubes (BCNT). **2014**,	
435	Metal-CNT contacts. **2014**,	2
434	Does water dope carbon nanotubes?. **2014**, 141, 164703	13
433	Metal□anocarbon contacts. **2014**, 29, 054006	43
432	The adsorption properties of CO molecules on single-layer graphene nanoribbons. **2014**, 4, 031330	7

431	Effect of partial exfoliation in carbon dioxide adsorption-desorption properties of carbon nanotubes. **2014**, 116, 124314	14
430	Grooves of Bundled Single-Walled Carbon Nanotubes Dramatically Enhance the Activity of the Oxygen Reduction Reaction. **2014**, 6, 3169-3173	8
429	Adsorbing H2S onto a single graphene sheet: A possible gas sensor. **2014**, 116, 103702	29
428	A post-HF study on the interaction of iodine with small polyaromatic hydrocarbons. **2014**, 20, 2445	7
427	Spray deposited carbon nanotubes for organic vapor sensors. **2014**, 45, 1691-1694	6
426	Supramolecular self-assembly and nanoencapsulation of [60]fullerene by bis-□cyclodextrin. **2014**, 79, 215-223	7
425	Ab initio study of Pd-decorated single-walled carbon nanotube with C-vacancy as CO sensor. **2014**, 25, 9-19	38
424	Performance of graphene, carbon nanotube, and gold nanoparticle chemiresistor sensors for the detection of petroleum hydrocarbons in water. **2014**, 16, 1	27
423	Nitrotyrosine adsorption on carbon nanotube: a density functional theory study. **2014**, 88, 483-487	16
422	The electric field screening and crossing point shift effects in coated carbon nanotubes. **2014**, 116, 629-633	2
421	Encapsulation of gases in powder solid matrices and their applications: A review. **2014**, 259, 87-108	54
420	Functionalization Of Carbon Nanotubes With Metal Phthalocyanine For SELECTIVE Gas Sensing Application. **2014**, 44, 1551-1557	17
419	Carbon Nanotube Gas Sensors. **2014**, 109-174	6
418	Study of atomic and molecular oxygen chemisorption on BC3 nanotubes with Stone□Wales defects using density functional theory. **2014**, 438, 16-22	2
417	Synthesis, characterization and sensing properties of ZnO-modified BN□eB49. **2014**, 600, 130-136	3
416	Surface chemistry of CO2 □Adsorption of carbon dioxide on clean surfaces at ultrahigh vacuum. **2014**, 89, 161-217	109
415	Triton assisted fabrication of uniform semiconducting single-walled carbon nanotube networks for highly sensitive gas sensors. **2014**, 66, 369-376	14
414	Thermal activation of ethylene glycol embedded in carbon nanotubes □Computer simulation study. **2014**, 177, 117-122	1

413	Enhanced adsorption of acidic gases (CO2, NO2 and SO2) on light metal decorated graphene oxide. **2014**, 16, 11031-6	76
412	Adsorption of CO, SO2, HCN, NH3, and H2CO on zigzag GaP nanotubes: a QM/MM study. **2014**, 4, 59056-59063	6
411	Surface functional groups and defects on carbon nanotubes affect adsorption–desorption hysteresis of metal cations and oxoanions in water. **2014**, 1, 488-495	57
410	The different adsorption mechanism of methane molecule onto a boron nitride and a graphene flakes. **2014**, 116, 153507	12
409	Adsorption properties of nitrogen dioxide on hybrid carbon and boron-nitride nanotubes. **2014**, 16, 22853-60	27
408	Room-temperature gas sensor using carbon nanotube with cobalt oxides. **2014**, 204, 596-601	43
407	Mutual Effects of Dialkyl Phthalate Esters and Humic Acid Sorption on Carbon Nanotubes in Aqueous Environments. **2014**, 2, 1219-1227	22
406	High sensitivity, moisture selective, ammonia gas sensors based on single-walled carbon nanotubes functionalized with indium tin oxide nanoparticles. **2014**, 80, 356-363	75
405	Iron oxide and oxygen plasma functionalized multi-walled carbon nanotubes for the discrimination of volatile organic compounds. **2014**, 78, 510-520	29
404	Modification of conductive properties of (10,0) zigzag single-walled carbon nanotubes (SWCNT) by alkali metals absorption. **2014**, 1076, 49-54	10
403	Application of Carbon Nanotubes in Heavy Metals Remediation. **2014**, 44, 1000-1035	57
402	Ultramicroporous MOF with High Concentration of Vacant CuII Sites. **2014**, 26, 4640-4646	29
401	Organic contaminants and carbon nanoparticles: sorption mechanisms and impact parameters. **2014**, 15, 606-617	6
400	Single-walled carbon nanotubes as a template for coronene stack formation. **2014**, 251, 2372-2377	13
399	Enhanced NH 3 -sensing behavior of 2,9,16,23-tetrakis(2,2,3,3-tetrafluoropropoxy) metal(II) phthalocyanine/multi-walled carbon nanotube hybrids: An investigation of the effects of central metals. **2014**, 80, 268-278	75
398	Revealing the adsorption mechanisms of nitroxides on ultrapure, metallicity-sorted carbon nanotubes. **2014**, 8, 1375-83	27
397	Gas sensor using a multi-walled carbon nanotube sheet to detect hydrogen molecules. **2014**, 211, 51-54	40
396	Carbon dioxide adsorption on doped boron nitride nanotubes. **2014**, 4, 28249-28258	24

395	Fabrication and Characterization of Amino Group Functionalized Multiwall Carbon Nanotubes (MWCNT) Formaldehyde Gas Sensors. **2014**, 14, 2362-2368	17
394	Effect of substitutionally boron-doped single-walled semiconducting zigzag carbon nanotubes on ammonia adsorption. **2014**, 35, 586-94	11
393	CO2 adsorption on crystalline graphitic nanostructures. **2014**, 5, 60-65	14
392	Crystallined Hybrid Carbon Synthesized by Catalytic Carbonization of Biomass and in-situ Growth of Carbon Nanofibers. **2014**, 30, 466-472	6
391	Adsorption of polar, nonpolar, and substituted aromatics to colloidal graphene oxide nanoparticles. **2014**, 186, 226-33	86
390	Gas sensing mechanism of carbon nanotubes: From single tubes to high-density networks. **2014**, 69, 417-423	70
389	Edge-functionalized graphene nanoflakes as selective gas sensors. **2014**, 202, 622-630	38
388	One-pot reflux method synthesis of cobalt hydroxide nanoflake-reduced graphene oxide hybrid and their NOx gas sensors at room temperature. **2014**, 612, 126-133	28
387	Carbon nanotube (CNT) gas sensors for emissions from fossil fuel burning. **2014**, 203, 349-362	90
386	Selectivity of Chemoresistive Sensors Made of Chemically Functionalized Carbon Nanotube Random Networks for Volatile Organic Compounds (VOC). **2014**, 2, 26-40	24
385	Cohesive Zone Model for the Interface of Multiwalled Carbon Nanotubes and Copper: Molecular Dynamics Simulation. **2014**, 5,	10
384	Graphene oxide as an optimal candidate material for methane storage. **2015**, 143, 044704	7
383	3D Nanocomposites of Covalently Interconnected Multiwalled Carbon Nanotubes with SiC with Enhanced Thermal and Electrical Properties. **2015**, 25, 4985-4993	14
382	Extraction of intercalated O2 from aligned carbon nanotubes: the breaking of intertube paths and exponential changes in resistance. **2015**, 16, 2625-9	2
381	Healable, Transparent, Room-Temperature Electronic Sensors Based on Carbon Nanotube Network-Coated Polyelectrolyte Multilayers. **2015**, 11, 5807-13	126
380	A Ni-Doped Carbon Nanotube Sensor for Detecting Oil-Dissolved Gases in Transformers. **2015**, 15, 13522-32	27
379	CO2 Adsorption on Charged Carbon Nanotube Arrays: A Possible Functional Material for Electric Swing Adsorption. **2015**, 119, 15232-15239	33
378	A DFT comparative study of single and double SO2 adsorption on Pt-doped and Au-doped single-walled carbon nanotube. **2015**, 349, 864-869	70

377	Dispersant selection for nanomaterials: Insight into dispersing functionalized carbon nanotubes by small polar aromatic organic molecules. **2015**, 91, 494-505		23
376	Synthesis of three-dimensional macro-porous networks of carbon nanotubes by chemical vapor deposition of methane on Co/Mo/Mg catalyst. **2015**, 505, 487-493		8
375	Experimental and computational study on the temperature behavior of CNT networks. **2015**,		0
374	Mechanical integrity of a carbon nanotube/copper-based through-silicon via for 3D integrated circuits: a multi-scale modeling approach. *Nanotechnology*, **2015**, 26, 485705	3.4	10
373	A 3D self-consistent percolative model for AC-DC electrical analysis of carbon nanotubes networks. **2015**,		1
372	Solid-State Materials and Molecular Cavities and Containers for the Supramolecular Recognition and Storage of NOX-Species: A Review. **2015**, 35, 128-178		5
371	First-principles study of the adsorption sensitivity of Ni-doped single-walled zigzag (n,0)CNTs (n=4,5,6) toward SO2 molecules. **2015**, 335, 17-22		19
370	Carbon monoxide monitoring using pristine and Cu-functionalized aluminum nitride and silicon carbide nanotubes; DFT study. **2015**, 204, 147-155		4
369	Influence of atmospheric water vapour on electrical performance of carbon nanotube fibres. **2015**, 87, 18-28		27
368	Benchmarking the CO2 Adsorption Energy on Carbon Nanotubes. **2015**, 119, 4934-4948		38
367	Self-heating effects in large arrangements of randomly oriented carbon nanofibers: Application to gas sensors. **2015**, 211, 489-497		33
366	Removal of endocrine disrupting compounds, pharmaceuticals, and personal care products in water using carbon nanotubes: A review. **2015**, 27, 1-11		198
365	Multi-walled carbon nanotubes-agarose gel micro-solid phase extraction for the determination of triazine herbicides in water samples. **2015**, 7, 2862-2868		8
364	Total Ionizing Dose X-ray Radiation Effects on MWCNT/PMMA Thin Film Composites. **2015**, 14, 152-158		7
363	CHAPTER 3:A Molecular View of Adsorption on Nanostructured Carbon Materials. **2015**, 67-162		
362	The role of density functional theory methods in the prediction of nanostructured gas-adsorbent materials. **2015**, 300, 142-163		32
361	An ab-initio study of adsorption of gaseous molecules on doped graphene structures. **2015**, 74, 515-526		10
360	Structural, electronic and magnetic properties of 5d transition metal mediated benzene adsorption on graphene: A first-principles study. **2015**, 209, 225-231		7

359	Carbon nanotubes on paper: Flexible and disposable chemiresistors. **2015**, 220, 1178-1185	26
358	Promotional effect of the electron donating functional groups on the gas sensing properties of graphene nanoflakes. **2015**, 5, 54535-54543	18
357	Analytical modeling of the sensing parameters for graphene nanoscroll-based gas sensors. **2015**, 5, 54700-54709	6
356	Charge Doping in Water-Adsorbed Carbon Nanotubes. **2015**, 131-146	
355	Water nanocondensation on polymer single crystal-decorated buckypaper. **2015**, 70, 271-277	7
354	Half-metallicity in armchair boron nitride nanoribbons: A first-principles study. **2015**, 212, 19-24	14
353	Surface electron perturbations and the collective behaviour of atoms adsorbed on a cylinder. **2015**, 11, 398-402	5
352	Strategies to enhance CO2 capture and separation based on engineering absorbent materials. **2015**, 3, 12118-12132	87
351	Disordered Nanomaterials for Chemielectric Vapor Sensing: A Review. **2015**, 15, 1301-1320	14
350	Adsorption of hydrogen on single-walled carbon nanotubes with defects. **2015**, 59, 47-53	25
349	CO2 Gas Sensors Based on Carbon Nanotube Thin Films Using a Simple Transfer Method on Flexible Substrate. **2015**, 15, 7017-7020	34
348	In-plane impedancemetric ammonia sensing of solution-deposited, highly semiconductor-enriched single-wall carbon nanotube submonolayer network gas sensors. **2015**, 220, 27-32	21
347	Optically transparent, electrically conducting single walled carbon nanotubes random networks for room temperature ammonia vapor sensing. **2015**, 40, 931-938	8
346	SWCNT-aminopolymer composites on mesoporous alumina for fast, room-temperature detection of ultra-low concentrations of NO2 by mediation of water vapour. **2015**, 220, 1105-1111	2
345	Langmuir-Blodgett Film of Multi-Walled Carbon Nanotubes for Hydrogen Sensor on Paper. **2015**, 754-755, 1146-1150	
344	Gas sensors based on functionalized carbon nanotubes. **2015**, 50, 333-354	17
343	Competitive adsorption of a binary CO2-CH4 mixture in nanoporous carbons: effects of edge-functionalization. **2015**, 7, 1002-12	114
342	Carbon nanotube gas sensor array for multiplex analyte discrimination. **2015**, 207, 833-842	16

341	DFT study of oxygen adsorption on vacancy and Stone-Wales defected single-walled carbon nanotubes with Cr-doped. **2015**, 65, 77-83	11
340	. **2016**,	20
339	A Sensor Array for the Detection and Discrimination of Methane and Other Environmental Pollutant Gases. **2016**, 16,	39
338	Graphene-Based Junction Devices for Hydrogen Sensors. **2016**,	1
337	Applications of Carbon Nanotubes and Their Polymer Nanocomposites for Gas Sensors. **2016**,	2
336	Multiscale Modeling of Novel Carbon Nanotube/Copper-Composite Material Used in Microelectronics. **2016**, 07, 1650001	1
335	Band gap and conductivity evaluation of carbon nanotube with hematite for green ammonia synthesis. **2016**,	
334	Adsorption Kinetics and Dynamics of CO2 on Ru(0001) Supported Graphene Oxide. **2016**, 120, 28049-28056	9
333	Chirality dependence of Single Wall Carbon nanotube based gas sensor. **2016**,	1
332	Carbon nanotubes: Sensor properties. A review. **2016**, 2, 95-105	246
331	The response of single-walled carbon nanotubes to NO2 and the search for a long-living adsorbed species. **2016**, 108, 033111	9
330	Flue gas adsorption by single-wall carbon nanotubes: A Monte Carlo study. **2016**, 145, 074701	7
329	Ni-CNT as Isopropanol Sensor: Ab-Initio Analysis. **2016**,	1
328	Effect of molecular coverage on the electric conductance of a multi-walled carbon nanotube thin film. **2016**, 654, 9-12	7
327	Detecting CO, NO and NO2 gases by Boron-doped graphene nanoribbon molecular devices. **2016**, 657, 18-25	20
326	SiC Nanostructures Toward Biomedical Applications and Its Future Challenges. **2016**, 41, 430-446	29
325	Hydrogen sensitive field-effect transistor based on germanene nanoribbon and optical properties of hydrogenated germanene. **2016**, 15, 381-388	15
324	An Organocobalt-Carbon Nanotube Chemiresistive Carbon Monoxide Detector. **2016**, 1, 354-357	40

323	Effect of UV irradiation on adsorption/desorption of oxygen and water on carbon nanotubes. **2016**,	2
322	Adsorption of bisphenolic xenoestrogens on graphene: A peculiar adsorbate concentration dependence on the conformation of graphene. **2016**, 4, 2333-2341	2
321	MP2 Study of Physisorption of Molecular Hydrogen onto Defective Nanotubes: Cooperative Effect in Stone-Wales Defects. **2016**, 120, 4951-60	9
320	Study of simultaneous reversible and irreversible adsorption on single-walled carbon nanotube gas sensor. **2016**, 177, 276-282	17
319	The effect of concentration of H 2 physisorption on the current□oltage characteristic of armchair BN nanotubes in CNT□BNNT□CNT set. **2016**, 87, 1	6
318	Study of Structural and Electronic Properties of Doped Arm Chair Single-Walled Carbon Nanotubes. **2016**, 3, 1820-1827	1
317	Adsorption of Organic Compounds by Engineered Nanoparticles. **2016**, 160-181	
316	Carbon nanocone as an electronic sensor for HCl gas: Quantum chemical analysis. **2016**, 134, 40-47	40
315	Electronic properties and reactivity trend for defect functionalization of single-walled carbon nanotube with B, Al, Ga atoms. **2016**, 221, 242-246	18
314	Carbon Nanotube-Silicon Nanowire Heterojunction Solar Cells with Gas-Dependent Photovoltaic Performances and Their Application in Self-Powered NO2 Detecting. **2016**, 11, 299	16
313	Thin film nanocomposite: the next generation selective membrane for CO2 removal. **2016**, 4, 15726-15748	50
312	Dynamics of charge carriers on hexagonal nanoribbons with vacancy defects. **2016**, 94,	20
311	Hydrogen adsorption on Pt-decorated closed-end armchair (3,3), (4,4) and (5,5) single-walled carbon nanotubes. **2016**, 114, 3508-3517	3
310	Preparation and Thermoelectric Properties of Sn-Based Type VIII Single-Crystalline Clathrate Via a-Sn Flux Method. **2016**, 25, 2180-2184	2
309	Anomalous Enhancement of Mechanical Properties in the Ammonia Adsorbed Defective Graphene. **2016**, 6, 33810	3
308	One-step synthesis and the enhanced xylene-sensing properties of Fe-doped MoO3 nanobelts. **2016**, 6, 106364-106369	23
307	Time domain analysis of traps generated random telegraph signal in (SWCNT) based sensors. **2016**, 252, 185-189	2
306	A convenient approach to producing a sensitive MWCNT-based paper sensor. **2016**, 6, 112241-112245	9

305	Elastic interaction of hydrogen atoms on graphene: A multiscale approach from first principles to continuum elasticity. **2016**, 94,		1
304	Estimation of adsorption energy for water molecules on a multi-walled carbon nanotube thin film by measuring electric resistance. **2016**, 6, 115212		12
303	A post-HF study on the halogen bonding interaction of pyrene with diatomic halogen molecules. **2016**, 116, 702-709		2
302	Multimodal probing of oxygen and water interaction with metallic and semiconducting carbon nanotube networks under ultraviolet irradiation. **2016**, 6, 025506		14
301	An accurate cost effective DFT approach to study the sensing behaviour of polypyrrole towards nitrate ions in gas and aqueous phases. **2016**, 18, 19236-47		40
300	Amine-modified silica nanotubes and nanospheres: synthesis and CO2 sorption properties. **2016**, 3, 806-817		16
299	Relative stability and thermodynamics properties of some graphene structures. **2016**, 3, 2254-2260		
298	QM/MM study of the interaction between zigzag SnC nanotube and small toxic gas molecules. **2016** , 116, 411-420		7
297	Transparent carbon nanotube film as sensitive material for surface plasmon resonance based optical sensors. **2016**, 236, 1098-1103		12
296	Single-Walled Carbon Nanotube Networks: The Influence of Individual Tube□Tube Contacts on the Large-Scale Conductivity of Polymer Composites. **2016**, 26, 4377-4385		23
295	Gas sensing properties of defect-induced single-walled carbon nanotubes. **2016**, 228, 688-692		40
294	Experimental and Computational Study on the Temperature Behavior of CNT Networks. **2016**, 15, 171-178		6
293	Shielding the chemical reactivity using graphene layers for controlling the surface properties of carbon materials. **2016**, 18, 4608-16		11
292	B40 fullerene as a highly sensitive molecular device for NH3 detection at low bias: a first-principles study. *Nanotechnology*, **2016**, 27, 075501	3.4	34
291	Melamine-anchored magnetic multiwall carbon nanotubes: tailoring functional groups reactivity for efficient adsorption of anionic dye. **2016**, 57, 20565-20573		5
290	Caffeine and nicotine adsorption on perfect, defective and porous graphene sheets. **2016**, 66, 47-51		16
289	Adsorption and Condensation of SO2 in Double-Walled Carbon Nanotube Arrays Studied by Monte Carlo Simulations and Simple Analytical Models. **2016**, 120, 7510-7521		11
288	Metal Carbon Nanotube Schottky Barrier Diode with Detection of Polar Non-polar Gases. **2016**,		

287	Possibility of spin-polarized transport in edge fluorinated armchair boron nitride nanoribbons. **2016**, 6, 11014-11022	7
286	Computational Analysis of Pressure-Dependent Optimal Pore Size for CO2 Capture with Graphitic Surfaces. **2016**, 120, 3978-3985	10
285	Reactivity of boron- and nitrogen-doped carbon nanotubes functionalized by (Pt, Eu) atoms toward O2 and CO: A density functional study. **2016**, 27, 1650075	2
284	Mechanisms of NH3 and NO2 detection in carbon-nanotube-based sensors: An ab initio investigation. **2016**, 101, 177-183	38
283	3-D Percolative Model-Based Multiscale Simulation of Randomly Aligned Networks of Carbon Nanotubes. **2016**, 63, 1346-1351	11
282	A qualitative approach to adsorption mechanism identification on microporous carbonaceous surfaces. **2016**, 22, 233-246	3
281	Gas adsorption on MoS2/WS2 in-plane heterojunctions and the I□V response: a first principles study. **2016**, 6, 17494-17503	41
280	Adsorption behavior and mechanism of chloramphenicols, sulfonamides, and non-antibiotic pharmaceuticals on multi-walled carbon nanotubes. **2016**, 310, 235-45	249
279	Adsorption and separation of binary and ternary mixtures of SO2, CO2 and N2 by ordered carbon nanotube arrays: grand-canonical Monte Carlo simulations. **2016**, 18, 4112-20	24
278	Semiconducting Carbon Nanotubes: Properties, Characterization and Selected Applications. **2016**, 239-259	1
277	Room temperature gas sensing properties of ultrathin carbon nanotube films by surfactant-free dip coating. **2016**, 227, 128-134	46
276	Experimental evidence for the influence of charge on the adsorption capacity of carbon dioxide on charged fullerenes. **2016**, 18, 3048-55	10
275	Review□The Development of Gas Sensor Based on Carbon Nanotubes. **2016**, 163, B97-B106	40
274	Modulating electronic, magnetic and chemical properties of MoS2 monolayer sheets by substitutional doping with transition metals. **2016**, 364, 181-189	120
273	Electrical properties of multi-walled carbon nanotubes/PEDOT:PSS nanocomposites thin films under temperature and humidity effects. **2016**, 224, 344-350	54
272	Improving graphene nanoribbon gas sensing behavior through warping. **2017**, 4, 015003	3
271	Macromolecule simulation and CH4 adsorption mechanism of coal vitrinite. **2017**, 396, 291-302	77
270	Synthesis and adsorption study of hyper-crosslinked styrene-based nanocomposites containing multi-walled carbon nanotubes. **2017**, 7, 6865-6874	27

269	First-principles approach to design and evaluation of graphene as methane sensors. **2017**, 119, 397-405		23
268	Adsorption of CO2 on Graphene: A Combined TPD, XPS, and vdW-DF Study. **2017**, 121, 2807-2814		52
267	Molecular dynamics of laser-assisted decomposition of unstable molecules at the surface of carbon nanotubes: case study of CH2(NO2)2 on CNT(4,0). **2017**, 115, 674-682		9
266	Gas adsorption on monolayer blue phosphorus: implications for environmental stability and gas sensors. *Nanotechnology*, **2017**, 28, 175708	3.4	67
265	Stably dispersed metallophthalocyanine noncovalently bonded to multiwalled carbon nanotubes for ammonia sensing at room temperature. **2017**, 246, 262-270		12
264	Modeling adsorbate-induced property changes of carbon nanotubes. **2017**, 38, 861-868		3
263	Methane Behavior in Carbon Nanotube as a Function of Pore Filling and Temperature Studied by Molecular Dynamics Simulations. **2017**, 121, 4066-4073		3
262	References. **2017**, 251-260		
261	Improving methane gas sensing properties of multi-walled carbon nanotubes by vanadium oxide filling. **2017**, 247, 11-18		37
260	Detection of NO 2 by hexa- peri -hexabenzocoronene nanographene: A DFT study. **2017**, 20, 758-764		13
259	Multiwalled carbon nanotubes□inc oxide nanocomposites as low temperature toluene gas sensor. **2017**, 123, 1		20
258	Polyethylenimine-functionalized multiwalled carbon nanotube for the adsorption of hydrogen sulfide. **2017**, 134,		9
257	Heat Capacity of 1D Molecular Chains. **2017**, 187, 113-123		8
256	The effect of rigid phenoxyl substituent on the NH3-sensing properties of tetra-□(4-tert-butylphenoxyl)-metallophthalocyanine/reduced graphene oxide hybrids. **2017**, 7, 22599-22609		13
255	Selective detection of chlorine at room temperature utilizing single-walled carbon nanotubes functionalized with platinum nanoparticles synthesized via ultraviolet irradiation. **2017**, 249, 414-422		16
254	Humidity-enhanced sub-ppm sensitivity to ammonia of covalently functionalized single-wall carbon nanotube bundle layers. *Nanotechnology*, **2017**, 28, 255502	3.4	19
253	Analytical sample preparation, preconcentration and chromatographic separation on carbon nanotubes. **2017**, 16, 102-114		15
252	Adsorption of dihalogen molecules on pristine graphene surface: Monte Carlo and molecular dynamics simulation studies. **2017**, 23, 150		9

251	Long-term stability of superhydrophilic oxygen plasma-modified single-walled carbon nanotube network surfaces and the influence on ammonia gas detection. **2017**, 410, 105-110		14
250	A cross-functional nanostructured platform based on carbon nanotube-Si hybrid junctions: where photon harvesting meets gas sensing. **2017**, 7, 44413		8
249	Nanotubes. **2017**, 1-24		2
248	Possibility of gas sensor based on C20 molecular devices. **2017**, 381, 1825-1830		8
247	How strongly do hydrogen and water molecules stick to carbon nanomaterials?. **2017**, 146, 094701		31
246	Chirality Dependence of Gas Adsorption Property of Single Wall Carbon Nanotubes. **2017**, 889, 248-252		0
245	Optimization and gas sensing mechanism of n-SnO2-p-Co3O4 composite nanofibers. **2017**, 248, 500-511		86
244	Noncovalent Protein and Peptide Functionalization of Single-Walled Carbon Nanotubes for Biodelivery and Optical Sensing Applications. **2017**, 9, 11321-11331		105
243	DFT investigation of NH 3 , PH 3 , and AsH 3 adsorptions on Sc-, Ti-, V-, and Cr-doped single-walled carbon nanotubes. **2017**, 400, 506-514		38
242	Superior Gas Sensing Properties of Monolayer PtSe2. **2017**, 4, 1600911		76
241	Gas sensing at the nanoscale: engineering SWCNT-ITO nano-heterojunctions for the selective detection of NH and NO target molecules. *Nanotechnology*, **2017**, 28, 035502	3.4	15
240	Molecular photoeffect in single- and multi-wall carbon nanotubes with physisorbed oxygen molecules. **2017**, 381, 4019-4022		1
239	Toward breath analysis on a chip for disease diagnosis using semiconductor-based chemiresistors: recent progress and future perspectives. **2017**, 17, 3537-3557		121
238	Breaking the electrical barrier between copper and carbon nanotubes. **2017**, 9, 8458-8469		37
237	An Experimental Investigation of the Refrigerant Adsorption Performance of Carbon Nanotube-Activated Carbon Mixtures. **2017**, 25, 1750017		2
236	Manipulating Polyaniline Fibrous Networks by Doping Tetra-□carboxyphthalocyanine Cobalt(II) for Remarkably Enhanced Ammonia Sensing. **2017**, 29, 9509-9517		16
235	Micropatternable Double-Faced ZnO Nanoflowers for Flexible Gas Sensor. **2017**, 9, 32876-32886		90
234	Unveiling Adsorption Mechanisms of Organic Pollutants onto Carbon Nanomaterials by Density Functional Theory Computations and Linear Free Energy Relationship Modeling. **2017**, 51, 11820-11828		27

233	Co-contaminant effects on ofloxacin adsorption onto activated carbon, graphite, and humic acid. **2017**, 24, 23834-23842	9
232	First-principles study of the small molecule adsorption on the InSe monolayer. **2017**, 426, 244-252	67
231	The electronic response of pristine, Al and Si doped BC2N nanotubes to a cathinone molecule: Computational study. **2017**, 111, 238-244	6
230	Transport phenomena of electrons at the carbon nanotube interface with molecular adsorption. **2017**, 122, 015308	13
229	Carbon Nanotubes. **2017**, 193-247	8
228	Phthalocyanine-mediated non-covalent coupling of carbon nanotubes with polyaniline for ultrafast NH3 gas sensors. **2017**, 5, 24493-24501	42
227	Surface modification of silica-graphene nanohybrid as a novel stabilizer for oil-water emulsion. **2017**, 34, 2488-2497	3
226	Effects of environmental conditions on the ultrafast carrier dynamics in graphene revealed by terahertz spectroscopy. **2017**, 95,	11
225	Fluorination of Carbon Nanotubes A Review. **2017**, 200, 179-189	41
224	Adsorption of formaldehyde molecule on the pristine and transition metal doped graphene: First-principles study. **2017**, 396, 1020-1025	48
223	Carbon Nanotubes for Sensing Applications. **2017**, 129-150	8
222	Estimation of the dimension of micropores and mesopores in single walled carbon nanotubes using the method HorvathKawazoe, Saito and Foley and BJH equations. **2017**, 12, 1-5	13
221	A competitive binding between O2 and epoxy with carbon nanotubes. **2017**, 7, 095217	1
220	Adsorption properties of CH3COOH on (6,0), (7,0), and (8,0) zigzag, and (4,4), and (5,5) armchair single-walled carbon nanotubes: A density functional study. **2017**, 10, S3001-S3006	6
219	Effect of Varying the Semiconducting/Metallic Tube Ratio on the Performance of Mixed Single-Walled Carbon Nanotube Network Gas Sensors. **2017**, 2017, 1-9	1
218	Gas Adsorption Studies of CO2 in Carbon Nanomaterials: A Case Study of Vertically Aligned Carbon Nanotubes. **2017**, 89, 1273-1287	5
217	Energy decomposition analysis of the intermolecular interaction energy between different gas molecules (H2, O2, H2O, N2, CO2, H2S, and CO) and selected Li+-doped graphitic molecules: DF-SAPT (DFT) calculations. **2018**, 137, 1	1
216	Vertically aligned double wall carbon nanotube arrays adsorbent for pure and mixture adsorption of HS, ethylbenzene and carbon monoxide, grand canonical Monte Carlo simulation. **2018**, 81, 86-96	6

215	Adsorptive Separation of CO2 from Multicomponent Mixtures of Flue Gas in Carbon Nanotube Arrays: A Grand Canonical Monte Carlo Study. **2018**, 32, 6090-6097	10
214	Simulation of Filed Effect Sensor Based on Graphene Nanoribbon to Detect Toxic NO Gas. **2018**, 10, 2695-26992	
213	Sensing of CO and NO on Cu-Doped MoS2 Monolayer-Based Single Electron Transistor: A First Principles Study. **2018**, 18, 2853-2860	43
212	Calcium Alginate-Caged Multiwalled Carbon Nanotubes Dispersive Microsolid Phase Extraction Combined With Gas Chromatography-Flame Ionization Detection for the Determination of Polycyclic Aromatic Hydrocarbons in Water Samples. **2018**, 56, 177-186	7
211	(hbox {N}_{2}) adsorption on the inside and outside the single-walled carbon nanotubes by density functional theory study. **2018**, 90, 1	3
210	Tuning the Electronic Structure of an Aluminum Phosphide Nanotube through Configuration of the Lattice Geometry. **2018**, 1, 501-504	0
209	Determination of conductivity anisotropy and the role of doping in single walled carbon nanotube thin films with THz spectroscopic ellipsometry. **2018**, 129, 592-597	5
208	Carbon and Its New Allotropes: Fullerene, Carbon Nanotubes, and Graphene. **2018**, 1-40	2
207	Transient behavior of carbon nanotube thin film for adsorption of polar and non-polar molecules. **2018**, 691, 351-354	2
206	Adsorption properties of graphene towards the ephedrine □A frequently used molecule in sport. **2018**, 1124, 39-50	7
205	Geometric and electronic structure of multilayered graphene: synergy of the nondirective ripples and the number of layers. **2018**, 20, 2230-2237	4
204	Molecular dynamics of reactions between (4,0) zigzag carbon nanotube and hydrogen peroxide under extreme conditions. **2018**, 116, 708-716	4
203	Multilevel Molecular Modeling Approach for a Rational Design of Ionic Current Sensors for Nanofluidics. **2018**, 14, 3113-3120	2
202	Tunable 3D Nanoresonators for Gas-Sensing Applications. **2018**, 28, 1707387	29
201	Calix[4]pyrrole-decorated carbon nanotubes on paper for sensing acetone vapor. **2018**, 258, 484-491	14
200	Silver nanowires-single walled carbon nanotubes heterostructure chemiresistors. **2018**, 256, 7-17	9
199	Preparation of single walled carbon nanotube-pyrene 3D hybrid nanomaterial and its sensor response to ammonia. **2018**, 256, 853-860	24
198	A DFT study for adsorption of CO on Ni, Pd and Pt atoms doped (7, 0) boron nitride nanotube. **2018**, 116, 204-211	8

197	Designer carbon nanotubes for contaminant removal in water and wastewater: A critical review. **2018**, 612, 561-581	180
196	Lithium-functionalized germanene: A promising media for CO 2 capture. **2018**, 382, 334-338	11
195	Sensing of low concentration of ammonia at room temperature by decorated multi-walled carbon nanotube: fabrication and characteristics. **2018**, 124, 1	3
194	Comparison of purity in single walled carbon nanotube gas detectors with Pd and Ti electrodes using low frequency noise techniques. **2018**, 99, 292-297	0
193	Atomistic Simulation of Mechanical Properties of Au32 Cluster Peapod Structures: Molecular Dynamics and Density Functional Theory. **2018**, 144, 04018110	1
192	Adsorption Properties of an Aluminum Powder Modified with Vanadium Pentoxide. **2018**, 92, 2302-2308	2
191	Highly Sensitive Humidity Sensor Based on Oblique Carbon Nanoplumes. **2018**, 18,	3
190	Robust cobalt perforated with multi-walled carbon nanotubes as an effective sensing material for acetone detection. **2018**, 5, 2563-2570	6
189	Improved Armchair Hexagonal Graphene Ring Gas Sensor. **2018**, 18, 8642-8647	2
188	Effects of functionalization of carbon nanotubes on its spin transport properties. **2018**, 217, 175-181	9
187	Molecular Simulation of Capture of Sulfur-Containing Gases by Porous Aromatic Frameworks. **2018**, 122, 18456-18467	15
186	Lignocellulose-Chitosan-Multiwalled Carbon Nanotube Composites with Improved Mechanical Strength, Dimensional Stability and Fire Retardancy. **2018**, 10,	7
185	Formation of a bi-rhodium boron tube RhB and its great CO capture ability. **2018**, 20, 26072-26082	11
184	Harnessing Filler Materials for Enhancing Biogas Separation Membranes. **2018**, 118, 8655-8769	154
183	A High-Sensitivity Hydrogen Gas Sensor Based on Carbon Nanotubes Fabricated on Glass Substrate. **2018**, 47, 6671-6680	11
182	Exploring the possibility of GaPNTs as new materials for hydrogen storage. **2018**, 56, 1476-1480	3
181	Synergy between nanomaterials and volatile organic compounds for non-invasive medical evaluation. **2018**, 47, 4781-4859	131
180	Competitive adsorption of CO2/N2/CH4 onto coal vitrinite macromolecular: Effects of electrostatic interactions and oxygen functionalities. **2019**, 235, 23-38	65

179	XH3 (X=P or N) Adsorption on Pristine, Pt-Doped and Vacancy-Defective (8,8) Boron Nitride Nanotubes: DFT Calculations. **2019**, 233, 431-447	3
178	X-ray radiation effects on thin film nanocomposites of functionalized and copper coated multi-walled carbon nanotube and poly(methyl methacrylate). **2019**, 17, 100362	1
177	Enhanced structural stability and overall conductivity of Li-rich layered oxide materials achieved by a dual electron/lithium-conducting coating strategy for high-performance lithium-ion batteries. **2019**, 7, 23964-23972	16
176	Effect of the Si, Al and B doping on the sensing behaviour of carbon nanotubes toward ethylene oxide: a computational study. **2019**, 45, 1384-1394	2
175	Molecular simulation of efficient removal of HS pollutant by cyclodextrine functionalized CNTs. **2019**, 9, 10605	9
174	How Gaseous Environment Influences a Carbon Nanotube-Based Mechanical Resonator. **2019**, 123, 25925-25933	3
173	Microscopic Simulation of Methane Adsorption in Organic Matter. **2019**, 58, 3523-3530	9
172	A novel highly selective and sensitive NH3 gas sensor based on monolayer Hf2CO2. **2019**, 492, 116-124	28
171	CO adsorption on Fe-doped vacancy-defected CNTs □A DFT study. **2019**, 730, 316-320	10
170	Hybrid Integration of Carbon Nanotubes and Transition Metal Dichalcogenides on Cellulose Paper for Highly Sensitive and Extremely Deformable Chemical Sensors. **2019**, 11, 19363-19371	28
169	Mathematical model for the encapsulation of Alanine amino acid inside a single-walled carbon nanotube. **2019**, 26, 895	1
168	Novel Hierarchical Meso-Microporous Hydrogen-Bonded Organic Framework for Selective Separation of Acetylene and Ethylene versus Methane. **2019**, 11, 17823-17827	20
167	Impressive capacity of the B7□and V2B7 clusters for CO2 capture. **2019**, 728, 186-194	6
166	Exploring QSPR modeling for adsorption of hazardous synthetic organic chemicals (SOCs) by SWCNTs. **2019**, 228, 545-555	12
165	Versatile Multi-Functional Block Copolymers Made by Atom Transfer Radical Polymerization and Post-Synthetic Modification: Switching from Volatile Organic Compound Sensors to Polymeric Surfactants for Water Rheology Control via Hydrolysis. **2019**, 9,	7
164	Gas-surface interactions on two-dimensional crystals. **2019**, 74, 141-177	9
163	A very sensitive and highly selective organic selector in CNTs composite chemiresistive for efficient differentiation of organic amine vapours. **2019**, 199, 698-704	2
162	Chlorinated holey double-walled carbon nanotubes for relative humidity sensors. **2019**, 148, 413-420	22

161	Formaldehyde trapping by radical initiated reaction on hydrogenated boron nitride. **2019**, 484, 470-478	7
160	Nanocarbon composites for detection of volatile organic compounds. **2019**, 401-419	2
159	A theoretical study on the adsorption of acid gases by boron nitride-based nanomaterials. **2019**, 480, 83-95	11
158	Functionalized Carbon Nanotubes for Detection of Volatile Organic Pollutant. **2019**,	2
157	A Review of Chipless Remote Sensing Solutions Based on RFID Technology. **2019**, 19,	18
156	Low-Cost Gas Sensing: Dynamic Self-Compensation of Humidity in CNT-Based Devices. **2019**, 4, 3141-3146	15
155	DFT study of arsine (AsH3) gas adsorption on pristine, Stone-Wales-defected, and Fe-doped single-walled carbon nanotubes. **2019**, 30, 97-105	14
154	Carbon Nanotube Chemical Sensors. **2019**, 119, 599-663	444
153	Investigation of the surface properties of different highly aligned N-MWCNT carpets. **2019**, 141, 99-106	2
152	A material experiment for small satellites to characterise the behaviour of carbon nanotubes in space development and ground validation. **2019**, 63, 2312-2321	2
151	Finite phenine nanotubes with periodic vacancy defects. **2019**, 363, 151-155	112
150	A comparative study of mechanisms of the adsorption of CO2 confined within graphene MoS2 nanosheets: a DFT trend study. **2019**, 1, 1442-1451	9
149	Adsorptive separation of volatile anaesthetics: A review of current developments. **2019**, 211, 491-503	8
148	Carbon nanotube thin-film-transistors for gas identification. **2019**, 281, 1080-1087	11
147	Non-local effect on the vibration analysis of double walled carbon nanotubes based on Donnell shell theory. **2020**, 116, 113726	7
146	Electrical responses of a carbon nanotube thin-film transistor to MeV proton irradiation in air. **2020**, 175, 440-449	1
145	First principles study on small ZrAln and HfAln clusters: Structural, stability, electronic states and CO2 adsorption. **2020**, 239, 122264	3
144	Adsorption of ciprofloxacin hydrochloride on multiwall carbon nanotube. **2020**, 1206, 127711	47

143	Highly Sensitive Detection of NO by Au and TiO Nanoparticles Decorated SWCNTs Sensors. **2019**, 20,	9
142	Porous Carbon Materials. **2020**, 29-95	2
141	Investigation of adsorption properties of levulinic acid by a nanotechnological material. **2020**, 1203, 127454	4
140	Functionalization of Molybdenum Disulfide via Plasma Treatment and 3-Mercaptopropionic Acid for Gas Sensors. **2020**, 10,	2
139	Direct Measurement of Water-Assisted Ion Desorption and Solvation on Isolated Carbon Nanotubes. **2020**,	1
138	Quantum effects on the mechanical properties of fine-scale CNTs: an approach based on DFT and molecular mechanics model. **2020**, 135, 1	6
137	Enhanced magnetoresistance in hydrogen- and fluorine-passivated zigzag aluminium nitride nano-ribbon. **2020**, 135, 1	0
136	DFT Study of HF and H2O Adsorption on Zn and Ga-Doped Single-Walled Carbon Nanotube. **2020**, 94, 1636-1642	1
135	Molecular and atomic adsorptions of hydrogen, oxygen, and nitrogen on defective carbon nanotubes: A first-principles study. **2020**, 45, 26655-26665	6
134	Carbon dioxide gas sensing, capture, and storage potential of calcium oxide surface and single walled carbon nanotube: insights from ab initio simulation. **2020**, 32, 245901	2
133	Electronic and Ionic Electric Field Screening and Persistent Built-In Electric Field in Carbon Nanotube/PCBM Films. **2020**, 217, 1900673	
132	Monte Carlo simulations of adsorption and separation of binary mixtures of CO2, SO2, and H2S by charged single-walled carbon nanotubes. **2020**, 18, 262-273	2
131	CO2 capture adsorbents functionalized by amine □bearing polymers: A review. **2020**, 96, 103005	79
130	Adsorption of NO2, HCN, HCHO and CO on pristine and amine functionalized boron nitride nanotubes by self-consistent charge density functional tight-binding method. **2020**, 7, 055005	11
129	Tailoring single walled carbon nanotube for improved CO2 gas applications: Insights from ab initio simulations. **2020**, 11, 100694	0
128	A molecular device providing a remarkable spin filtering effect due to the central molecular stretch caused by lateral zigzag graphene nanoribbon electrodes. **2020**, 22, 6755-6762	3
127	Monte Carlo Simulations of SO2, H2S, and CO2 Adsorption in Charged Single-Walled Carbon Nanotube Arrays. **2020**, 124, 5838-5852	6
126	Printed gas sensors. **2020**, 49, 1756-1789	106

125	Carbon nanomaterial applications in air pollution remediation. **2020**, 133-153	11
124	An Analytical Conductance Model for Gas Detection Based on a Zigzag Carbon Nanotube Sensor. **2020**, 20,	3
123	Adsorption simulation of open-ended single-walled carbon nanotubes for various gases. **2020**, 10, 015338	2
122	Analytical Prediction of Highly Sensitive CNT-FET-Based Sensor Performance for Detection of Gas Molecules. **2020**, 8, 12655-12661	6
121	State-of-the-art of methane sensing materials: A review and perspectives. **2020**, 125, 115820	11
120	Self-standing MWCNTs based gas sensor for detection of environmental limit of CO2. **2020**, 255, 114528	18
119	Thermal analysis of carbon nanomaterials: advantages and problems of interpretation. **2020**, 142, 349-370	30
118	Nature inspired solid-liquid phase amphibious adhesive. **2020**, 16, 5854-5860	2
117	Reversible changes in the electronic structure of carbon nanotube-hybrids upon NO2 exposure under ambient conditions. **2020**, 8, 9753-9759	2
116	Theoretical study of NO2 adsorption on SiCNT and P-doped SiCNT. **2021**, 127, 114519	1
115	Encapsulation of monocyclic carbon clusters into carbon nanotubes: A continuum modeling approach. **2021**, 235, 12-29	1
114	Comprehending the contemporary state of art in biogas enrichment and CO2 capture technologies via swing adsorption. **2021**, 46, 6588-6612	13
113	Asymmetric transport in boron intratube p-i-n junction via gas storage for diode applications. **2021**, 537, 148081	0
112	Introducing a biomimetic coating for graphene neuroelectronics: towardapplications.. **2020**, 7,	2
111	Understanding water slippage through carbon nanotubes. **2021**, 23, 14737-14745	1
110	Explosive molecule sensing at lattice defect sites in metallic carbon nanotubes.	3
109	First-Principles Investigation of Pd-Doped Armchair Graphene Nanoribbons as a Potential Rectifier. **2021**, 50, 1196-1206	9
108	Nanomaterials and Nanoprocesses for the Removal and Reuse of Heavy Metals. **2021**, 2649-2660	

107	Carbon Nanotube Field-Effect Transistor-Based Chemical and Biological Sensors. **2021**, 21,		17
106	Graphene Oxide/Polyvinyl Alcohol/FeO Nanocomposite: An Efficient Adsorbent for Co(II) Ion Removal. **2021**, 2021, 6670913		3
105	Dry Sonication Process for Preparation of Hybrid Structures based on Graphene and Carbon Nanotubes usable for Chemical Sensors. *Nanotechnology*, **2021**,	3.4	3
104	Nanopore structure analysis of single wall carbon nanotube xerogels and cryogels. **2021**, 27, 673-681		1
103	Ab initio study of lithium decoration of popgraphene and hydrogen storage capacity of the hybrid nanostructure. **2021**, 46, 15724-15737		1
102	Sorption and Desorption Analysis of Nitrobenzene on Differently Functionalized Multiwalled Carbon Nanotubes and Implications on the Stability. **2021**, 13, 1426		1
101	van der Waals corrected density functionals for cylindrical surfaces: Ammonia and nitrogen dioxide adsorbed on a single-walled carbon nanotube. **2021**, 103,		1
100	Density functional study of adsorption of atoms and molecules on single-walled BN nanotubes. **2021**, 4, 100084		1
99	Growth of Defect-Induced Carbon Nanotubes for Low-Temperature Fruit Monitoring Sensor. **2021**, 9, 131		5
98	Study of the effect of orbital on interaction behaviour of SWCNT- metal phthalocyanines composites with ammonia gas. **2021**, 337, 129767		4
97	A review exploring the adsorptive removal of organic micropollutants on tailored hierarchical carbon nanotubes. 1-44		1
96	First-Principles Investigations of N-Vacancy Induced Zigzag Boron Nitride Nanoribbons for Nanoscale Resonant Tunneling Applications. **2021**, 50, 5664-5681		2
95	X-ray absorption near edge spectroscopy of the electronic structure of potassium adsorbed single walled carbon nanotubes. **2021**, 96, 105803		
94	Energetic and electronic properties of NH, NO and SO interacting with GaN nanotube: a DFT study. **2021**, 27, 234		0
93	Engineering Carbon Materials for Electrochemical Oxygen Reduction Reactions. **2021**, 11, 2100695		13
92	Recent advances and challenges in silicon carbide (SiC) ceramic nanoarchitectures and their applications. **2021**, 28, 102533		11
91	Carbon Nanostructures Doped with Transition Metals for Pollutant Gas Adsorption Systems. **2021**, 26,		2
90	Metal-Decorated Crown Ether-Embedded Graphene Nanomeshes for Enhanced Molecular Adsorption. **2021**, 4, 2100202		0

89	Recent progress in III-nitride nanosheets: properties, materials and applications.	1
88	Removal and surface photocatalytic degradation of methylene blue on carbon nanostructures. **2021**, 119, 108544	5
87	Carbon Nanotube Gas Sensors. **2008**, 311-349	2
86	Introduction to Carbon Nanotubes. **2007**, 43-112	22
85	Hydrogen Adsorption and Penetration of Cx (x=58-62) Fullerenes with Defects. **2007**, 280-287	1
84	Introduction to Carbon Nanotubes. **2004**, 39-98	1
83	Application of Carbon Nanotubes in Fluidic Waste treatment and Energy Harvesting. **2019**, 1273-1285	1
82	Dramatic efficiency boost of single-walled carbon nanotube-silicon hybrid solar cells through exposure to ppm nitrogen dioxide in air: An ab-initio assessment of the measured device performances. **2020**, 566, 60-68	3
81	Structures and Properties of Carbon Nanotubes. **2004**, 1-24	3
80	Nanoelectronics Applications. **2004**, 163-193	2
79	Carbon Nanotube Applications. **2004**, 213-235	4
78	Chemistry of Carbon Nanotubes. **2006**,	3
77	Chemistry of Carbon Nanotubes. **2006**, 77-147	1
76	Chemistry of Carbon Nanotubes. **2006**, 37-108	2
75	- Atomistic Simulation of Gas Adsorption in Carbon Nanostructures. **2012**, 307-348	1
74	Influence of the Hydrogen Adsorption to the Optical Properties of Boron Nitride Nanotubes. **2016**, 129, 348-351	3
73	EA Density Functional Study of the Adsorption of Carbon Dioxide Molecule on Graphene. **2013**, 58, 841-845	1
72	Amino Acid Adsorption Effects on Nanotube Electronics. **2006**, 49, 440-442	1

71	Graphene-Based Gas Sensor Theoretical Framework. **2017**, 117-149	1
70	Effect of Tubular Chiralities and Diameters of Single Carbon Nanotubes on Gas Sensing Behavior: A DFT Analysis. **2014**, 04, 66-74	8
69	Electrophoretic deposition of Au NPs on CNT networks for sensitive NO₂ detection. **2014**, 3, 245-252	4
68	Indoor Air Pollution, Sorbent Selection, and Analytical Techniques for Volatile Organic Compounds. **2018**, 12, 289-310	5
67	Interaction of O2, CO2, NO2 and SO2 on Si- doped Carbon Nanotube. **2011**, 138-143	6
66	A high-sensitivity hydrogen gas sensor based on carbon nanotubes fabricated on SiO2 substrate. **2021**, 7, 172-183	3
65	A Review on the Synthesis, Properties, and Utilities of Functionalized Carbon Nanoparticles for Polymer Nanocomposites. **2021**, 13,	7
64	NH3Gas Sensing Characteristics of Single-Walled Carbon Nanotubes and Heating Effect. **2004**, 14, 276-280	
63	NO Gas Sensing Characteristics of Single-Walled Carbon Nanotubes and Heating Effect. **2004**, 13, 292-297	1
62	Molecular Dynamics Simulations of Nanomemory Element Based on Boron Nitride Nanotube-to-peapod Transition. **2004**, 5, 227-232	
61	Nanoscale Intelligent Materials and Structures. **2005**,	
60	Possible application of single-walled carbon nanotube transistors for humidity sensor. **2005**, 14, 331-336	
59	ATMOSPHERIC PARAMETERS SENSING USING NANOTECHNOLOGY BASED SENSORS AND IMAGE PROCESSED REAL-TIME SATELLITE DATA. **2006**, 443-448	
58	Chapter 1:Carbon-Nanotube-Network Sensors. **2008**, 1-28	
57	Chemical Sensing with SWNT FETs. **2009**, 191-209	0
56	Stripe Pattern Formation of Carbon Nanotubes by Self-assembly. **2009**, 30, 503-506	
55	Electromechanical and Chemical Sensing at the Nanoscale: DFT and Transport Modeling. **2009**, 47-69	
54	Encyclopedia of Complexity and Systems Science. **2009**, 689-703	

53	Molecular Adsorption and Desorption on the Single-Walled Carbon Nanotubes. **2011**, 32, 349-354	
52	A density functional theory study of absorption behavior of CO on Au-doped single-walled carbon nanotubes. **2011**, 60, 106102	
51	Carbon-Based Nanostructures. **2014**, 3-31	
50	Stacking on Density Functional Theory: A Review. **2014**, 245-270	0
49	Nitrogen Interaction with Carbon Nanotubes: Adsorption and Doping. **2017**, 115-169	
48	Release of chemisorbed hydrogen from carbon nanotubes: Insights from ab-initio molecular dynamics simulations. **2017**, 42, 21191-21197	2
47	Nitrogen Gas on Graphene: Pairwise Interaction Potentials. **2018**, 563-578	1
46	Nanomaterials and Nanoprocesses for the Removal and Reuse of Heavy Metals. **2020**, 1-12	
45	Functionalized semiconducting carbon nanotube arrays for gas phase explosives detection. **2022**, 717, 121998	0
44	Attached two folded graphene nanoribbons as sensitive gas sensor. **2022**, 628, 413630	
43	Applying ART Toward Single-Walled Carbon Nanotube Device Fabrication. **2021**, 147-171	
42	Hydrogen Encapsulation and Storage as an Alternative Energy Source. **2022**, 265-287	
41	THERMOELECTRIC MODEL TO PREDICT ELECTRICAL RESISTIVITY OF DIELECTRIC BASED NANOCOMPOSITES. **2021**, 16, 22	
40	Ultrahigh-stability SnOX (X = S, Se) nanotubes with a built-in electric field as a highly promising platform for sensing NH3, NO and NO2: a theoretical investigation. **2022**, 10, 7948-7959	0
39	Ab initio studies of the electronic structure induced by the CO and N2 adsorptions on graphene and on graphite slab. **2022**,	
38	Experimental and theoretical review on covalent coupling and elemental doping of carbon nanomaterials for environmental photocatalysis. 1-42	1
37	Investigation of pristine and B/N/Pt/Au/Pd doped single-walled carbon nanotube as phosgene gas sensor: A first-principles analysis. **2022**, 588, 152989	1
36	Highly selective formaldehyde sensor using silicon doped graphene: A theoretical study. **2022**, 31, 103452	0

35	Imidazole functionalized graphene and carbon nanotubes for CO2 detection. **2022**, 1259, 132719	
34	Application of Carbon Nanotubes (CNTs) for Remediation of Emerging Pollutants - A Review. **2021**, 2, 13-26	3
33	Gas Sensing Properties of High-Purity Semiconducting Single-Walled Carbon Nanotubes for NH3, H2, and NO. **2021**, 10, 121004	0
32	Carbon nanomaterial-based sensors in air pollution remediation. **2022**, 105-123	
31	Introduction and overview of carbon nanomaterial-based sensors for sustainable response. **2022**, 395-416	0
30	Hydrogen Storage: Liquid and Chemical. **2012**, 144-165	0
29	Specific Heat Capacity of Carbon-Based Composites for Adsorption Heat Pump and Desalination Applications. **2022**, 87-111	
28	Structures, Electronic Properties, and Gas Permeability of 3D Pillared Silicon Carbide Nanostructures. **2022**, 12, 1869	0
27	Gas-Sensing Properties of Dissolved Gases in Insulating Material Adsorbed on SnO2□GeSe Monolayer. **2022**, 10, 212	1
26	Low-Temperature Ethanol Sensor via Defective Multiwalled Carbon Nanotubes. **2022**, 15, 4439	1
25	One-pot hydrothermal growth of indium oxide-CNT heterostructure via single walled carbon nanotube scaffolds and their application toward flexible NO2 gas sensors. **2022**, 922, 166169	4
24	Probing the role of CNTs in Pt nanoparticle/CNT/graphene nanohybrids H2 sensors. *Nano Express*,	2
23	QCM Measurements of RH with Nanostructured Carbon-Based Materials: Part 1□Theory and Model. **2022**, 10, 315	0
22	QCM Measurements of RH with Nanostructured Carbon-Based Materials: Part 2-Experimental Characterization. **2022**, 10, 320	0
21	Gas Sensors Based on Single-Wall Carbon Nanotubes. **2022**, 27, 5381	5
20	Effective detection of early Citrus Huanglongbing by polyethyleneimine modified multi-walled carbon nanotubes gas sensor. **2022**, 371, 132508	0
19	Carbon Nanotubes for Nanoelectronics and Microelectronic Devices. **2022**, 1-23	0
18	Binder-Free ZnTPP/CNT Paper for Room Temperature Ammonia Sensor and Mechanism Investigation. **2022**, 22, 17706-17711	0

17	Sensors Based on the Carbon Nanotube Field-Effect Transistors for Chemical and Biological Analyses. **2022**, 12, 776	2
16	Computational Investigation of the Interaction of Multifunctionalized Porous Aromatic Frameworks with SO2. **2022**, 126, 16306-16314	0
15	A Flexible NO2 Gas Sensor Based on Single-Wall Carbon Nanotube Films Doped with a High Level of Nitrogen. **2022**, 27, 6523	0
14	Hybrid Carbon Nanotubes/Gold Nanoparticles Composites for Trace Nitric Oxide Detection over a Wide Range of Humidity. **2022**, 22, 7581	0
13	Carbon Nanotubes for Nanoelectronics and Microelectronic Devices. **2022**, 1533-1555	0
12	Selective adsorption of sulphur dioxide and hydrogen sulphide by metal□organic frameworks.	0
11	A flexible and wearable paper-based chemiresistive sensor modified with SWCNTs-PdNPs-polystyrene microspheres composite for the sensitive detection of ethylene gas: A new method for the determination of fruit ripeness and corruption. **2023**, 1239, 340724	0
10	MOF/MWCNT□Nanocomposite Manipulates High Selectivity to Gas via Different Adsorption Sites with Varying Electron Affinity: A Study in Methane Detection in Parts-per-Billion. **2022**, 7, 3846-3856	0
9	Wavelength-dependent negative/positive photoresponses in single-walled carbon nanotube/PbS quantum dot mixed-dimensional heterostructures. **2023**, 55,	0
8	Carbon-based gas sensing materials. **2023**, 51-79	0
7	Recent development and prospects for metal Selenide-based gas sensors. **2023**, 290, 116333	0
6	Doping of Graphene Nanostructure with Iron, Nickel and Zinc as Selective Detector for the Toxic Gas Removal: A Density Functional Theory Study. **2023**, 9, 20	0
5	Study of adsorption energy for toxic gases (NH3, Br2) in pure and sulfur doped graphene nano-ribbon. **2023**,	0
4	Graphene Embedded with Transition Metals for Capturing Carbon Dioxide: Gas Detection Study Using QM Methods. **2023**, 5, 403-417	0
3	Transition metal (X = Mn, Fe, Co, Ni, Cu, Zn)-doped graphene as gas sensor for CO2 and NO2 detection: a molecular modeling framework by DFT perspective. **2023**, 29,	0
2	Highly Selective Polyene-Polyyne Resistive Gas Sensors: Response Tuning by Low-Energy Ion Irradiation. **2023**, 7, 156	0
1	Designed Production of Atomic-Scale Nanowindows in Single-Walled Carbon Nanotubes.	0