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**Electrically conductive polymer composites for smart flexible strain sensors: a critical review**

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440	Highly efficient uranium adsorption by salicylaldehyde/polydopamine graphene oxide nanocomposites. <b>2018</b> , 6, 24676-24685		220
439	Simultaneous Determination of Catechol and Hydroquinone Using Non-Enzymatic Co <sub>3</sub> O <sub>4</sub> @carbon Core/Shell Composites Based Sensor. <b>2019</b> , 166, B1069-B1078		21
438	. <b>2019</b> , 19, 10373-10378		3
437	High-performance functional nanocomposites using 3D ordered and continuous nanostructures generated from proximity-field nanopatterning. <b>2019</b> , 1, 032002		19
436	Effect of graphene liquid crystal on dielectric properties of polydimethylsiloxane nanocomposites. <b>2019</b> , 176, 107338		56
435	Highly stable kirigami-structured stretchable strain sensors for perdurable wearable electronics. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 9609-9617	7.1	67
434	Investigation of the constancy of the MWCNTs on the fibres surface for manufactured self-sensing composites. <b>2019</b> , 173, 106998		12
433	Highly Stretchable, Transparent, and Bio-Friendly Strain Sensor Based on Self-Recovery Ionic-Covalent Hydrogels for Human Motion Monitoring. <b>2019</b> , 304, 1900227		47
432	Stretchable Conductive Hybrid Films Consisting of Cubic Silsesquioxane-capped Polyurethane and Poly(3-hexylthiophene). <b>2019</b> , 11,		7
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425	Development of an off-on selective fluorescent sensor for the detection of Fe <sup>3+</sup> ions based on Schiff base and its Hirshfeld surface and DFT studies. <b>2019</b> , 296, 111814		15
424	Effect of Nano-Materials on Autogenous Shrinkage Properties of Cement Based Materials. <b>2019</b> , 11, 1144		13

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421	Properties of conductive polymer hydrogels and their application in sensors. <b>2019</b> , 57, 1606-1621	32
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417	Adjusting Distribution of Multiwall Carbon Nanotubes in Poly(L-lactide)/Poly(oxymethylene) Blends via Constructing Stereocomplex Crystallites: Toward Conductive and Microwave Shielding Enhancement. <b>2019</b> , 123, 27884-27895	14
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415	Ultralightweight and 3D Squeezable Graphene-Polydimethylsiloxane Composite Foams as Piezoresistive Sensors. <b>2019</b> , 11, 35201-35211	47
414	Carbide-bonded graphene coated zirconia for achieving rapid thermal cycling under low input voltage and power. <b>2019</b> , 45, 24318-24323	2
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412	Ultrasensitive electrochemical detection of ochratoxin A based on signal amplification by one-pot synthesized flower-like PEDOT-AuNFs supported on a graphene oxide sponge. <b>2019</b> , 144, 5866-5874	19
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410	An overview of stretchable strain sensors from conductive polymer nanocomposites. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 11710-11730	7.1 199
409	Highly sensitive capacitive pressure sensors based on elastomer composites with carbon filler hybrids. <b>2019</b> , 126, 105614	29
408	Boosted selectivity and enhanced capacity of As(V) removal from polluted water by triethylenetetramine activated lignin-based adsorbents. <b>2019</b> , 140, 1167-1174	56
407	High-performance coaxial wire-shaped supercapacitors using ionogel electrolyte toward sustainable energy system. <b>2019</b> , 34, 3030-3039	62
406	A Highly Sensitive and Stretchable Yarn Strain Sensor for Human Motion Tracking Utilizing a Wrinkle-Assisted Crack Structure. <b>2019</b> , 11, 36052-36062	82

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397	Recent Advances in Polymer and Polymer Composites for Electromagnetic Interference Shielding: Review and Future Prospects. <b>2019</b> , 59, 687-738		74
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394	Highly Sensitive and Stretchable Polyurethane Fiber Strain Sensors with Embedded Silver Nanowires. <b>2019</b> , 11, 23649-23658		75
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392	Space resolution improvement for pressure measurement by using a single conductive polymer composite sheet in area array. <b>2019</b> , 295, 324-335		2
391	Simultaneous improvement of thermal conductivities and electromagnetic interference shielding performances in polystyrene composites via constructing interconnection oriented networks based on electrospinning technology. <b>2019</b> , 124, 105484		61
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389	Sensitive conductive polymer nanocomposites from multiwalled carbon nanotube coated with polypyrrole and hydroxyl-terminated poly(butadiene-co-acrylonitrile) polyurethane for detection of chloroform vapor. <b>2019</b> , 173, 106894		4
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383	Synergistically Toughening Polyoxymethylene by Methyl Methacrylate-Butadiene-Styrene Copolymer and Thermoplastic Polyurethane. <b>2019</b> , 220, 1800567		61
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381	Improvement of piezoresistive sensing behavior of graphene sponge by polyaniline nanoarrays. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 7386-7394	7.1	21
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370	Flexible Sandwich Structural Strain Sensor Based on Silver Nanowires Decorated with Self-Healing Substrate. <b>2019</b> , 304, 1900074		138

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367	Ionic liquid enabled electrical-strain tuning capability of carbon black based conductive polymer composites for small-strain sensors and stretchable conductors. <b>2019</b> , 174, 202-211	27
366	Enhanced Solid Particle Erosion Properties of Thermoplastic Polyurethane-Carbon Nanotube Nanocomposites. <b>2019</b> , 304, 1900010	41
365	Metal complex hybrid composites based on fullerene-bearing porous polycarbazole for H <sub>2</sub> , CO <sub>2</sub> and CH <sub>4</sub> uptake and heterogeneous hydrogenation catalysis. <b>2019</b> , 169, 255-262	55
364	Remarkably Strengthened microinjection molded linear low-density polyethylene (LLDPE) via multi-walled carbon nanotubes derived nanohybrid shish-kebab structure. <b>2019</b> , 167, 362-369	42
363	Nanocomposite sponges of sodium alginate/graphene oxide/polyvinyl alcohol as potential wound dressing: In vitro and in vivo evaluation. <b>2019</b> , 167, 396-405	180
362	Highly Sensitive, Ultrastretchable Strain Sensors Prepared by Pumping Hybrid Fillers of Carbon Nanotubes/Cellulose Nanocrystal into Electrospun Polyurethane Membranes. <b>2019</b> , 11, 12968-12977	87
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357	Asymmetric deformation in poly(ethylene-co-1-octene)/multi-walled carbon nanotube composites with glass micro-beads for highly piezoresistive sensitivity. <b>2019</b> , 370, 176-184	22
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328	Hydrogen bonding derived self-healing polymer composites reinforced with amidation carbon fibers. <b>2020</b> , 31, 025704	37
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315	Facile one-step preparation of laminated PDMS based flexible strain sensors with high conductivity and sensitivity via filler sedimentation. <b>2020</b> , 186, 107933	17
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295	High-strength, flexible and cycling-stable piezo-resistive polymeric foams derived from thermoplastic polyurethane and multi-wall carbon nanotubes. <b>2020</b> , 199, 108279	25
294	Electric Heating Behavior of Reduced Oxide Graphene/Carbon Nanotube/Natural Rubber Composites with Macro-Porous Structure and Segregated Filler Network. <b>2020</b> , 12,	10
293	Scalable fabrication of flexible piezoresistive pressure sensors based on occluded microstructures for subtle pressure and force waveform detection. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 16774-16783 <sup>7.1</sup>	9
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287	Compressible sliver nanowires/polyurethane sponge metacomposites with weakly negative permittivity controlled by elastic deformation. <b>2020</b> , 55, 15481-15492	13
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272	3D printing of cell-laden electroconductive bioinks for tissue engineering applications. <b>2020</b> , 8, 5862-5876		34
271	Wearable and Stretchable Strain Sensors: Materials, Sensing Mechanisms, and Applications. <b>2020</b> , 2, 2000039		120
270	Microwave-assisted selective heating to rapidly construct a nano-cracked hollow sponge for stretch sensing. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 9391-9400	7.1	12
269	Metal-graphene hybrid active chiral metasurfaces for dynamic terahertz wavefront modulation and near field imaging. <b>2020</b> , 163, 34-42		60
268	Highly stretchable and sensitive strain sensors based on carbon nanotube/elastomer nanocomposites: the effect of environmental factors on strain sensing performance. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 6185-6195	7.1	26
267	A facile and simple approach to synthesis and characterization of methacrylated graphene oxide nanostructured polyaniline nanocomposites. <b>2020</b> , 9, 53-60		24
266	Ultrasensitive MWCNT/PDMS composite strain sensor fabricated by laser ablation process. <b>2020</b> , 192, 108105		33
265	Piezoresistive Elastomer-Based Composite Strain Sensors and Their Applications. <b>2020</b> , 2, 1826-1842		24
264	Flexible electrochemical biosensors for healthcare monitoring. <b>2020</b> , 8, 7303-7318		25
263	Recent Progress in Transparent Conductors Based on Nanomaterials: Advancements and Challenges. <b>2020</b> , 5, 1900939		20
262	Synthesis of carbon nanotubes with controllable diameter by chemical vapor deposition of methane using Fe@Al <sub>2</sub> O <sub>3</sub> core-shell nanocomposites. <b>2020</b> , 217, 115541		15

261	Screen-Printed Flexible Strain Sensors with Ag Nanowires for Intelligent and Tamper-Evident Packaging Applications. <b>2020</b> , 5, 1901097		13
260	Natural Biopolymers for Flexible Sensing and Energy Devices. <b>2020</b> , 38, 459-490		41
259	Humidity-resistive, elastic, transparent ion gel and its use in a wearable, strain-sensing device. <b>2020</b> , 8, 6013-6021		17
258	Achieving enhanced electromagnetic shielding and absorption capacity of cellulose-derived carbon aerogels via tuning the carbonization temperature. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 5191-5201	7.1	23
257	Modular Soft Robotics: Modular Units, Connection Mechanisms, and Applications. <b>2020</b> , 2, 1900166		18
256	Multifunctional conductive cellulose fabric with flexibility, superamphiphobicity and flame-retardancy for all-weather wearable smart electronic textiles and high-temperature warning device. <b>2020</b> , 390, 124508		55
255	Flexible conductive Ag nanowire/cellulose nanofibril hybrid nanopaper for strain and temperature sensing applications. <b>2020</b> , 65, 899-908		95
254	2D Percolation Design with Conductive Microparticles for Low-Strain Detection in a Stretchable Sensor. <b>2020</b> , 30, 1908514		19
253	Highly enhanced electrical and mechanical properties of methyl methacrylate modified natural rubber filled with multiwalled carbon nanotubes. <b>2020</b> , 85, 106417		11
252	Flexible TPU strain sensors with tunable sensitivity and stretchability by coupling AgNWs with rGO. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 4040-4048	7.1	35
251	Facile Fabrication of Multifunctional Poly(ethylene-co-octene)/Carbon Nanotube Foams Based on Tunable Conductive Network. <b>2020</b> , 59, 1934-1943		16
250	Transparent, high-strength, stretchable, sensitive and anti-freezing poly(vinyl alcohol) ionic hydrogel strain sensors for human motion monitoring. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 2827-2837	7.1	53
249	Multifunctional Conductive Hydrogel/Thermochromic Elastomer Hybrid Fibers with a Core-Shell Segmental Configuration for Wearable Strain and Temperature Sensors. <b>2020</b> , 12, 7565-7574		55
248	A superhydrophobic fluorinated PDMS composite as a wearable strain sensor with excellent mechanical robustness and liquid impalement resistance. <b>2020</b> , 8, 3509-3516		67
247	Chemically and mechanically robust SWCNT based strain sensor with monotonous piezoresistive response for infrastructure monitoring. <b>2020</b> , 388, 124174		13
246	Polydimethylsiloxane-based nanocomposite: present research scenario and emergent future trends. <b>2020</b> , 59, 1148-1166		14
245	Manufacturing High Sensitive Strain Sensor of Polyurethane Nanofiber Mat/AgNWs by Simple Dip-dry Method. <b>2020</b> , 21, 359-365		3
244	Electroactive polymers meet solid acid: A synergetic poly(acid yellow 9)/layered alpha tin phosphate (PAY/ESnP) composite film for absorbing heavy metal ions. <b>2020</b> , 704, 137956		1

243	A highly stretchable strain sensor based on CNT/graphene/fullerene-SEBS.. <b>2020</b> , 10, 11225-11232	21
242	Synthesis of Polypyrrole/V2O5 Composite Film on the Surface of Magnesium Using a Mild Vapor Phase Polymerization (VPP) Method for Corrosion Resistance. <b>2020</b> , 10, 402	4
241	Azo dye aggregates and their roles in the morphology and conductivity of polypyrrole. <b>2020</b> , 177, 108329	11
240	Constructing honeycomb conductive rings in graphene foam/epoxy resin metacomposites for adjustable negative permittivity, low dielectric loss tangent and mechanical enhancement. <b>2020</b> , 82, 105706	21
239	Advances in Responsively Conductive Polymer Composites and Sensing Applications. <b>2021</b> , 61, 157-193	47
238	Bioinspired Sensing, Actuation, and Control in Underwater Soft Robotic Systems. <b>2021</b> ,	2
237	Star-nose-inspired multi-mode sensor for anisotropic motion monitoring. <b>2021</b> , 80, 105559	11
236	A hydrophobic conductive strip with outstanding one-dimensional stretchability for wearable heater and strain sensor. <b>2021</b> , 404, 126393	22
235	Graphite-Filled Polyethylene/Epoxy Blend for High-Conductivity Applications: The Immiscibility Edge. <b>2021</b> , 60, 105-116	1
234	Boosting electrical and piezoresistive properties of polymer nanocomposites via hybrid carbon fillers: A review. <b>2021</b> , 173, 1020-1040	28
233	Core-Shell Fiber-Based Wearable Strain Sensor with High Stretchability and Sensitivity for Detecting Human Motion. <b>2021</b> , 7, 2000865	15
232	Polymer chemistry underpinning materials for triboelectric nanogenerators (TENGs): Recent trends. <b>2021</b> , 142, 110163	12
231	Significance of nano-materials, designs consideration and fabrication techniques on performances of strain sensors - A review. <b>2021</b> , 123, 105581	14
230	Conductive MXene/cotton fabric based pressure sensor with both high sensitivity and wide sensing range for human motion detection and E-skin. <b>2021</b> , 420, 127720	69
229	Smart Composites and Their Applications. <b>2021</b> , 380-389	
228	Effects of service condition on the performance of conductive polymer composites for flexible strain sensors. <b>2021</b> , 318, 112494	3
227	Salt-mediated triple shape-memory ionic conductive polyampholyte hydrogel for wearable flexible electronics. <b>2021</b> , 9, 1048-1061	33
226	Flexible LiZnTiMn ferrite/PDMS composites with enhanced magnetic-dielectric properties for miniaturized application. <b>2021</b> , 47, 1121-1125	4

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224	Conductivity controllable rubber films: response to humidity based on a bio-based continuous segregated cell network. <b>2021</b> , 9, 8749-8760		5
223	Lithographically patterned polypyrrole multilayer microstructures via sidewall-controlled electropolymerization. <b>2021</b> , 31, 025008		2
222	Recent progress in flexible nanocellulosic structures for wearable piezoresistive strain sensors. <i>Journal of Materials Chemistry C</i> , <b>2021</b> , 9, 11001-11029	7.1	5
221	Lightweight, Superelastic, and Hydrophobic Polyimide Nanofiber /MXene Composite Aerogel for Wearable Piezoresistive Sensor and Oil/Water Separation Applications. <b>2021</b> , 31, 2008006		127
220	Inkjet Printing of Highly Sensitive, Transparent, Flexible Linear Piezoresistive Strain Sensors. <b>2021</b> , 11, 51		3
219	Highly Sensitive Ultrathin Flexible Thermoplastic Polyurethane/Carbon Black Fibrous Film Strain Sensor with Adjustable Scaffold Networks. <b>2021</b> , 13, 64		78
218	Self-Healing Hydrogels for Analyte Sensing. <b>2021</b> ,		
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216	Recent trends in the applications of thermally expanded graphite for energy storage and sensors □ a review.		7
215	Anisotropy of resistance-type strain sensing networks based on aligned carbon nanofiber membrane. <b>2021</b> , 56, 6292-6305		4
214	Self-Healing Polymer Nanocomposite Materials by Joule Effect. <b>2021</b> , 13,		14
213	Use of Surface Penetration Technology to Fabricate Superhydrophobic Multifunctional Strain Sensors with an Ultrawide Sensing Range. <b>2021</b> , 13, 11284-11295		14
212	Wearable Biosensors: An Alternative and Practical Approach in Healthcare and Disease Monitoring. <b>2021</b> , 26,		43
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210	Towards artificial proprioception from artificial muscles constituted by self-sensing multi-step electrochemical macromolecular motors. <b>2021</b> , 368, 137576		8
209	Fabrication of Conductive Polymer Composites and Their Applications in Sensors. <b>2021</b> , 21-52		0
208	Modeling the stress and resistance relaxation of conductive composites-coated fabric strain sensors. <b>2021</b> , 204, 108645		4

207	Piezoresistive strain sensors based on psyllium-carbon nanostructure skeletons. <b>2021</b> , 209, 108610	6
206	Biaxial Inflation Stretch Test for Flexible Electronics. <b>2021</b> , 23, 2001503	0
205	Multifunctional CaCO <sub>3</sub> /polyelectrolyte sorbents for heavy metal ions decontamination of synthetic waters. <b>2021</b> , 613, 126084	5
204	A comparative study between vapor phase polymerized PPy and PEDOT - Thermoplastic polyurethane composites for ammonia sensing. <b>2021</b> , 217, 123463	6
203	High sensitivity of multi-sensing materials based on reduced graphene oxide and natural rubber: The synergy between filler segregation and macro-porous morphology. <b>2021</b> , 205, 108689	18
202	Strain Sensing Coatings for Large Composite Structures Based on 2D MXene Nanoparticles. <b>2021</b> , 21,	6
201	Multifunctional Self-Healing Dual Network Hydrogels Constructed via Host-Guest Interaction and Dynamic Covalent Bond as Wearable Strain Sensors for Monitoring Human and Organ Motions. <b>2021</b> , 13, 14612-14622	34
200	Stretchable strain sensors with dentate groove structure for enhanced sensing recoverability. <b>2021</b> , 211, 108641	24
199	Facile and Large-scale Fabrication of Self-crimping Elastic Fibers for Large Strain Sensors. <b>2021</b> , 39, 914	1
198	Printable G-Putty for Frequency- and Rate-Independent, High-Performance Strain Sensors. <b>2021</b> , 17, e2006542	7
197	Sensorized Foam Actuator with Intrinsic Proprioception and Tunable Stiffness Behavior for Soft Robots. <b>2021</b> , 3, 2100022	1
196	Three-dimensional light-weight piezoresistive sensors based on conductive polyurethane sponges coated with hybrid CNT/CB nanoparticles. <b>2021</b> , 548, 149268	20
195	Production of elastomer-based highly conductive hybrid nanocomposites and treatment with sulfuric acid. <b>2021</b> , 41, 467-479	1
194	Scalable manufacturing of conductive rubber nanocomposites with ultralow percolation threshold for strain sensing applications. <b>2021</b> , 25, 100685	8
193	Highly stretchable and sensitive strain sensor based on silver nanowires/carbon nanotubes on hair band for human motion detection. <b>2021</b> ,	6
192	Rapid custom prototyping of soft poroelastic biosensor for simultaneous epicardial recording and imaging. <b>2021</b> , 12, 3710	9
191	Manufacture of high sensitive Ag-Fe <sub>3</sub> O <sub>4</sub> -PDMS nanocomposite pressure sensor through morphology control of conductive filler. <b>2021</b> ,	2
190	Highly stretchable conductive elastomeric polyurethane nanofiber composite for human motion detection. <b>2021</b> , 293, 129698	2

189	Highly stretchable self-sensing actuator based on conductive photothermally-responsive hydrogel. <b>2021</b> ,	23
188	Transparent Omni-Directional Stretchable Circuit Lines Made by a Junction-Free Grid of Expandable Au Lines. <b>2021</b> , 33, e2100299	6
187	Bi-continuous conductive network induced by in-situ phase separation in epoxy composites with enhanced electromagnetic interference shielding performance. <b>2021</b> , 164, 104918	2
186	Holocellulose Nanofibril-Assisted Intercalation and Stabilization of TiCT MXene Inks for Multifunctional Sensing and EMI Shielding Applications. <b>2021</b> , 13, 36221-36231	7
185	Recent Progress in Essential Functions of Soft Electronic Skin. <b>2021</b> , 31, 2104686	43
184	Microfluidic preparation of highly stretchable natural rubber microfiber containing CNT/PEDOT:PSS hybrid for fabric-sewable wearable strain sensor. <b>2021</b> , 210, 108811	19
183	Tuning Mechanical and Electrical Properties of Elastomer Composites with Hybrid Filler Network Containing Graphene for Stretchable Strain Sensors. 2100703	2
182	Highly Tunable Piezoresistive Behavior of Carbon Nanotube-Containing Conductive Polymer Blend Composites Prepared from Two Polymers Exhibiting Crystallization-Induced Phase Separation. <b>2021</b> , 13, 43333-43347	1
181	. <b>2021</b> , 109, 1364-1397	8
180	3D-Printed Flexible Piezoresistive Sensors for Stretching and Out-of-Plane Forces. 2100437	5
179	Structural Design Strategies of Polymer Matrix Composites for Electromagnetic Interference Shielding: A Review. <b>2021</b> , 13, 181	65
178	Design of flexible strain sensor with both ultralow detection limit and wide sensing range via the multiple sensing mechanisms. <b>2021</b> , 213, 108932	9
177	Relationship between microstructure evolution and properties enhancement of carbon nanotubes-filled polybutylene terephthalate/polypropylene blends induced by thermal annealing. 51689	1
176	Comparative study of flexural and physical properties of graphite-filled immiscible polypropylene/epoxy and high-density polyethylene/epoxy blends. 096739112110470	
175	Wearable and self-healable textile-based strain sensors to monitor human muscular activities. <b>2021</b> , 220, 108969	5
174	An adhesive and self-healable hydrogel with high stretchability and compressibility for human motion detection. <b>2021</b> , 213, 108948	13
173	Flexible strain sensor with high sensitivity, fast response, and good sensing range for wearable applications. <b>2021</b> , 32,	2
172	Biology and bioinspiration of soft robotics: Actuation, sensing, and system integration. <b>2021</b> , 24, 103075	8



171	A Surface-Confined Gradient Conductive Network Strategy for Transparent Strain Sensors toward Full-Range Monitoring. <b>2021</b> , 13, 43806-43819	0
170	Superhydrophobic and wearable TPU based nanofiber strain sensor with outstanding sensitivity for high-quality body motion monitoring. <b>2021</b> , 419, 129513	26
169	Highly conductive and durable electrothermal electrode through the steric confinement effect of graphene on helically intersected carbon fiber network. <b>2021</b> , 213, 108900	1
168	Global Challenges of Digital Transformation of Markets: Collaboration and Digital Assets. <b>2021</b> , 13, 10619	4
167	A sensitive and flexible sensor enhanced by constructing graphene-based polyaniline conductive networks. <b>2021</b> , 330, 112862	1
166	The tunable sensing behaviors of flexible conductive PDMS/NCG composites via regulation of filler size prepared by a facile sedimentation method. <b>2021</b> , 216, 109037	1
165	Triple mode and multi-purpose flexible sensor fabrication based on carbon black and thermoplastic polyurethane composite with propolis. <b>2021</b> , 332, 113056	2
164	Flexible, Robust, and Durable Aramid Fiber/CNT Composite Paper as a Multifunctional Sensor for Wearable Applications. <b>2021</b> , 13, 5486-5497	15
163	Fabricating Microcracks in SBS-g-MAH/CB Composites to Improve Conductivity and Small Strain-Sensing Sensitivity. <b>2021</b> , 50, 992-1001	4
162	Direct printing of functional 3D objects using polymerization-induced phase separation. <b>2021</b> , 12, 55	19
161	Recent Advances in Self-Healable Intelligent Materials Enabled by Supramolecular Crosslinking Design. <b>2021</b> , 3, 2000183	5
160	Study on the forming and sensing properties of laser-sintered TPU/CNT composites for plantar pressure sensors. <b>2021</b> , 112, 2211-2222	6
159	Influence of Graphene Oxide on Thermally Induced Shape Memory Behavior of PLA/TPU Blends: Correlation with Morphology, Creep Behavior, Crystallinity, and Dynamic Mechanical Properties. <b>2021</b> , 306, 2000576	15
158	Effects of temperature on MWCNTs/PDMS composites based flexible strain sensors. <b>2020</b> , 27, 3202-3212	6
157	Fabrication and characterization of Ag flake hybrid circuits with IPL-sintering. <b>2020</b> , 53, 13-18	3
156	Bioinspired, Superhydrophobic, and Paper-Based Strain Sensors for Wearable and Underwater Applications. <b>2021</b> , 13, 1967-1978	26
155	An efficient flexible strain sensor based on anhydride-grafted styrene-butadiene-styrene triblock copolymer/carbon black: enhanced electrical conductivity, sensitivity and stability through solvent swelling. <b>2020</b> , 29, 125018	9
154	Investigation of the influence of carbon black on the rheology and electromechanical properties of ethylene butene copolymer. <b>2020</b> , 7, 125303	1

153	Facile and rapid fabrication of conductive layers on flexible polymer surfaces and their application to flexible strain sensors. <b>2021</b> , 32, 27305	1
152	Recent Advances on Conducting Polymers Based Nanogenerators for Energy Harvesting. <b>2021</b> , 12,	3
151	Self-Healing, Self-Adhesive Strain Sensors Made with Carbon Nanotubes/Polysiloxanes Based on Unsaturated Carboxyl-Amine Ionic Interactions. <b>2021</b> , 13, 49266-49278	1
150	Development of Conductive Hydrogels for Fabricating Flexible Strain Sensors. <b>2021</b> , e2101518	25
149	Mussel-Inspired Chemistry: A Promising Strategy for Natural Polysaccharides in Biomedical Applications. <b>2021</b> , 101472	7
148	Simple route to performance modulation of resistive strain sensor based on strain-engineered stretchable substrate with customized hard template. <b>2022</b> , 217, 109111	1
147	Highly sensitive and stretchable fiber strain sensors empowered by synergetic conductive network of silver nanoparticles and carbon nanotubes. <b>2021</b> , 25, 101221	3
146	Use of graphene-based fabric sensors for monitoring human activities. <b>2021</b> , 332, 113172	0
145	Self-supported Materials for Flexible/Stretchable Sensors. <b>2020</b> , 269-296	
144	Stretchable and ultrasensitive strain sensor from carbon nanotube-based composite with significantly enhanced electrical and sensing properties by tailoring segregated conductive networks. <b>2021</b> , 29, 100987	4
143	Robust conductive organohydrogel strain sensors with wide range linear sensing, UV filtering, anti-freezing and water-retention properties. <b>2021</b> , 632, 127823	2
142	Porous conductive elastomeric composites with carbon nanotubes suspended in the narrow pores from Co-continuous polymer blend nanocomposites. <b>2021</b> , 109116	2
141	Novel conductive polymer composites based on CNTs/CNFs bridged liquid metal. <b>2021</b> , 54, 085401	0
140	Flexible Sensor for Invisible Respiratory Monitoring via Construction of a 2D Stacked Micronetwork. <b>2020</b> , 5, 32806-32813	
139	Bioinspired Sensors and Actuators Based on Stimuli-Responsive Hydrogels for Underwater Soft Robotics. <b>2021</b> , 99-115	1
138	Experimental study of the impact of electrospinning parameters on the electromechanical properties of strain sensitive electrospun multiwalled carbon nanotubes/ thermoplastic polyurethane nanofibers. 1-16	1
137	Recent Advances in Multiresponsive Flexible Sensors towards E-skin: A Delicate Design for Versatile Sensing. <b>2021</b> , e2103734	10
136	Healable, Adhesive, and Conductive Nanocomposite Hydrogels with Ultrastretchability for Flexible Sensors. <b>2021</b> , 13, 58048-58058	7

135	Recent Development of Multifunctional Sensors Based on Low-Dimensional Materials. <b>2021</b> , 21,	0
134	Gradient Diffusion Anisotropic Carboxymethyl Cellulose Hydrogels for Strain Sensors. <b>2021</b> ,	3
133	Flexible and Stable Carbon Nanotube Film Strain Sensors with Self-Derived Integrated Electrodes. <b>2021</b> , 13, 55600-55610	0
132	Conductive Polymer Composites for Soft Tactile Sensors. <b>2021</b> , 29, 761-775	3
131	A prediction model for photopatternable thickness of photocurable polymer nanocomposites containing carbon-based high-aspect-ratio fillers. <b>2022</b> , 218, 109207	2
130	Facile fabrication of silicone rubber composite foam with dual conductive networks and tunable porosity for intelligent sensing. <b>2022</b> , 164, 110980	2
129	Flexible strain sensors for wearable applications fabricated using novel functional nanocomposites: A review. <b>2022</b> , 284, 115214	7
128	Multifunctional conductive graphite/cellulosic microfiber-natural rubber composite sponge with ultrasensitive collision-warning and fire-waring. <b>2022</b> , 431, 134046	1
127	Positive temperature coefficient (PTC) materials based on amorphous poly(methyl methacrylate) with ultrahigh PTC intensity, tunable switching temperature and good reproducibility. <b>2022</b> , 30, 103078	1
126	Selective and efficient removal of radioactive ions from water with well-dispersed metal oxide nanoparticles@N-doped carbon. <b>2022</b> , 285, 120366	2
125	Flexible fluorinated multi-walled carbon nanotube/polyarylene ether nitrile metacomposites with negative permittivity. <i>Journal of Materials Chemistry C</i> , <b>2021</b> , 10, 171-179	7.1 1
124	Carbon-based aerogel in three-dimensional polyurethane scaffold: The effect of in situ unidirectional aerogel growth on piezoresistive properties. <b>2022</b> , 333, 113306	1
123	Adhesion and Stiffness Matching in Epoxy-Vitrimers/Strain Sensor Fiber Laminates. <b>2022</b> , 4, 1264-1275	3
122	Remendable conductive polyethylene composite with simultaneous restoration of electrical and mechanical behavior.	0
121	Epoxidized natural rubber/acid functionalized carbon nanotubes composites for enhanced thermo-mechanical and oxygen barrier performance.	0
120	Vertical graphene on flexible substrate, overcoming limits of crack-based resistive strain sensors. <b>2022</b> , 6,	5
119	Highly Stretchable and Sensitive Strain Sensor based on Ionogel/Ag Synergistic Conductive Network. 2102245	2
118	Wearable and antibacterial HPMC-anchored conductive polymer composite strain sensor with high gauge factors under small strains. <b>2022</b> , 435, 135068	2

117	A multifunctional hydrogel fabricated via ultra-fast polymerization by graphene oxide-adsorbed liquid metal nanodroplets. <b>2022</b> , 435, 135018	1
116	Highly sensitive, direction-aware, and transparent strain sensor based on oriented electrospun nanofibers for wearable electronic applications. <b>2022</b> , 435, 135004	3
115	Performance of Flexible Strain Sensors with Different Transition Mechanisms: A Review. <b>2022</b> , 1-1	5
114	Rapid mold-free fabrication of long functional PDMS fibers. <b>2022</b> , 14,	
113	Mussel-Inspired Polynorepinephrine/MXene-Based Magnetic Nanohybrid for Electromagnetic Interference Shielding in X-Band and Strain-Sensing Performance.. <b>2022</b> ,	6
112	Highly Sensitive and Stretchable MXene/CNTs/TPU Composite Strain Sensor with Bilayer Conductive Structure for Human Motion Detection.. <b>2022</b> ,	9
111	Conductivity Behaviour under Pressure of Copper Micro-Additive/Polyurethane Composites (Experimental and Modelling).. <b>2022</b> , 14,	0
110	Sustainable Natural Bio-Origin Materials for Future Flexible Devices.. <b>2022</b> , e2200560	9
109	Electrically conductive porous MXene-polymer composites with ultralow percolation threshold via Pickering high internal phase emulsion templating strategy.. <b>2022</b> , 618, 290-299	1
108	Electroconductive cellulose nanocrystals - Synthesis, properties and applications: A review.. <b>2022</b> , 289, 119419	0
107	3D Nanoconductive Network Based on the Microstructure of Latex Foam for Superior Performance Piezoresistive Sensors. <b>2022</b> , 4, 54-63	2
106	An In Situ Self-Assembly Dual Conductive Shell Nanofiber Strain Sensor with Superior Sensitivity and Antibacterial Property. <b>2022</b> , 9, 2101107	1
105	"Toolbox" for the Processing of Functional Polymer Composites.. <b>2021</b> , 14, 35	8
104	A Data-Driven Review of Soft Robotics. 2100163	2
103	The Effect of Graphite Additives on Magnetization, Resistivity and Electrical Conductivity of Magnetorheological Plastomer. <b>2021</b> , 14,	0
102	Cost-Effective Fabrication of Transparent Strain Sensors via Micro-Scale 3D Printing and Imprinting.. <b>2021</b> , 12,	3
101	Introduction. <b>2022</b> , 1-22	
100	Flexible Pyroelectric Sensors for Energy Harvesting Applications. <b>2022</b> , 153-168	1

99	Highly-stretchable porous thermoplastic polyurethane/carbon nanotubes composites as a multimodal sensor. <b>2022,</b>	5
98	Reduced-order modeling of conductive polymer pressure sensors using finite element simulations and deep neural networks. <b>2022,</b> 65, 1	1
97	Highly Conductive Polymer Composite Based on Graphite-Filled Immiscible Polyolefin/Epoxy Blends. 917, 10-21	
96	Flexible and high-performance piezoresistive strain sensors based on multi-walled carbon nanotubes@polyurethane foam.. <b>2022,</b> 12, 14190-14196	2
95	Nanoarchitectonics for conductive polymers using solid and vapor phases.	0
94	Conformable on-skin supercapacitor-integrated, strain sensor based on multioxidant-functionalized thermoplastic polyurethane/reduced graphene oxide/polypyrrole composite films.	1
93	Anti-dryable, anti-freezable, and self-healable conductive hydrogel for adhesive electrodes. 1-11	
92	Carbon Nanotube Anchored Organic Hydrogel for Soft Sensors. 2100890	0
91	Facile Fabrication of Highly Sensitive Thermoplastic Polyurethane Sensors with Surface- and Interface-Impregnated 3D Conductive Networks.. <b>2022,</b>	3
90	Ag Nanowire-Based Omnidirectional Stretchable Sensing Array for Independent Pressure/Strain Detection.	1
89	Influence of various functional groups in graphene on the mechanical and interfacial properties of epoxy nanocomposites: A review on molecular modeling and MD simulations.	
88	Migration mechanism of carbon nanotubes and matching viscosity-dependent morphology in Co-continuous Poly(lactic acid)/Poly(E-caprolactone) blend: Towards electromagnetic shielding enhancement. <b>2022,</b> 252, 124963	7
87	Evaluation of conductivity and piezo-impedance response of VACNTs/PDMS nanocomposite-based strain sensors under small deformations. <b>2022,</b> 113626	
86	Intelligent Nanomaterials for Wearable and Stretchable Strain Sensor Applications: The Science behind Diverse Mechanisms, Fabrication Methods, and Real-Time Healthcare. <b>2022,</b> 14, 2219	1
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