Igors Sics

List of Publications by Year
in descending order

57 papers	4,227 citations	117625 34 h-index	155660 55 g-index
57 all docs	57 docs citations	57 times ranked	3249 citing authors

#	Article	IF	Citations
1	Probing structure development in Poly(vinylidene Fluoride) during â€œoperandoâ€•3-D printing by small and wide angle X-ray scattering. Polymer, 2022, 249, 124827.	3.8	9
2	Deflectometry encoding the measured angle in a time-dependent intensity signal. Review of Scientific Instruments, 2019, 90, 021707.	1.3	2
3	Structure Development in Polymers during Fused Filament Fabrication (FFF): An in Situ Small- and Wide-Angle X-ray Scattering Study Using Synchrotron Radiation. Macromolecules, 2019, 52, 9715-9723.	4.8	45
4	Nanometer accuracy with continuous scans at the ALBA-NOM. , 2016, , .		7
5	The morphology and polymorphism of self-nucleated trigonal isotactic poly(1-butene) studied by synchrotron IR microspectroscopy. CrystEngComm, 2016, 18, 816-828.	2.6	21
6	Molecular Weight and Crystallization Temperature Effects on Poly(ethylene terephthalate) (PET) Homopolymers, an Isothermal Crystallization Analysis. Polymers, 2014, 6, 583-600.	4.5	41
7	Characterization, optimization and surface physics aspects ofin situplasma mirror cleaning. Journal of Synchrotron Radiation, 2014, 21, 300-314.	2.4	26
8	Small-angle X-ray scattering study of intramuscular fish bone: collagen fibril superstructure determined from equidistant meridional reflections. Journal of Applied Crystallography, 2008, 41, 252-261.	4.5	31
9	Lateral Packing of Mineral Crystals in Bone Collagen Fibrils. Biophysical Journal, 2008, 95, 1985-1992.	0.5	77
10	New Insights into Lamellar Structure Development and SAXS/WAXD Sequence Appearance during Uniaxial Stretching of Amorphous Poly(ethylene terephthalate) above Glass Transition Temperature. Macromolecules, 2008, 41, 2859-2867.	4.8	58
11	Order and Segmental Mobility in Crystallizing Polymers. , 2007, , 435-456.		2
12	Small-angle X-ray study of the three-dimensional collagen/mineral superstructure in intramuscular fish bone. Journal of Applied Crystallography, 2007, 40, s666-s668.	4.5	17
13	Deformation behaviour during cold drawing of nanocomposites based on single wall carbon nanotubes and poly(ether ester) copolymers. Polymer, 2007, 48, 3286-3293.	3.8	28
14	Shearâ€Induced Orientation and Structure Development in Isotactic Polypropylene Melt Containing Modified Carbon Nanofibers. Journal of Macromolecular Science - Physics, 2006, 45, 247-261.	1.0	31
15	Trilayer Crystalline Lamellar Morphology under Confinement. Macromolecules, 2006, 39, 2739-2742.	4.8	21
16	Structure Evolution during Cyclic Deformation of an Elastic Propylene-Based Ethyleneâ^'Propylene Copolymer. Macromolecules, 2006, 39, 3588-3597.	4.8	62
17	Phase Transitions and Honeycomb Morphology in an Incompatible Blend of Enantiomeric Polylactide Block Copolymers. Macromolecules, 2006, 39, 8203-8206.	4.8	16
18	In-Situ X-ray Deformation Study of Fluorinated Multiwalled Carbon Nanotube and Fluorinated Ethyleneâ^'Propylene Nanocomposite Fibers. Macromolecules, 2006, 39, 5427-5437.	4.8	40

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19	Superstructure Evolution in Poly(ethylene terephthalate) during Uniaxial Deformation above Glass Transition Temperature. Macromolecules, 2006, 39, 2909-2920.	4.8	61
20	Thermal stability of shear-induced precursor structures in isotactic polypropylene by rheo-X-ray techniques with couette flow geometry. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 3553-3570.	2.1	30
21	Comparison of poly(ethylene oxide) crystal orientations and crystallization behaviors in nano-confined cylinders constructed by a poly(ethylene oxide)-b-polystyrene diblock copolymer and a blend of poly(ethylene oxide)-b-polystyrene and polystyrene. Polymer, 2006, 47, 5457-5466.	3.8	87
22	On the structure and morphology of polyvinylidene fluorideâ€“nanoclay nanocomposites. Polymer, 2006, 47, 1678-1688.	3.8	260
23	Relationship between structure and dynamic mechanical properties of a carbon nanofiber reinforced elastomeric nanocomposite. Polymer, 2006, 47, 6797-6807.	3.8	17
24	The role of high molecular weight chains in flow-induced crystallization precursor structures. Journal of Physics Condensed Matter, 2006, 18, S2421-S2436.	1.8	12
25	Uniaxial deformation of an elastomer nanocomposite containing modified carbon nanofibers by in situ synchrotron X-ray diffraction. Polymer, 2005, 46, 5103-5117.	3.8	45
26	Crystallization of Polystyrene-block-[Syndiotactic Poly(propylene)] Block Copolymers from Confinement to Breakout. Macromolecular Rapid Communications, 2005, 26, 107-111.	3.9	33
27	Probing the Nature of Strain-Induced Crystallization in Polyisoprene Rubber by Combined Thermomechanical and In Situ X-ray Diffraction Techniques. Macromolecules, 2005, 38, 7064-7073.	4.8	85
28	Confined Discotic Liquid Crystalline Self-Assembly in a Novel Coilâ^'Coilâ^'Disk Triblock Oligomer. Macromolecules, 2005, 38, 3386-3394.	4.8	17
29	In-Situ X-ray Scattering Studies of a Unique Toughening Mechanism in Surface-Modified Carbon Nanofiber/UHMWPE Nanocomposite Films. Macromolecules, 2005, 38, 3883-3893.	4.8	70
30	Perforated Layer Structures in Liquid Crystalline Rodâ^'Coil Block Copolymers. Journal of the American Chemical Society, 2005, 127, 15481-15490.	13.7	124
31	Deformation-Induced Phase Transition and Superstructure Formation in Poly(ethylene terephthalate). Macromolecules, 2005, 38, 91-103.	4.8	111
32	Probing Flow-Induced Precursor Structures in Blown Polyethylene Films by Synchrotron X-rays during Constrained Melting. Macromolecules, 2005, 38, 5128-5136.	4.8	29
33	Mechanism of strain-induced crystallization in filled and unfilled natural rubber vulcanizates. Journal of Applied Physics, 2005, 97, 103529.	2.5	140
34	Reversible De-Intercalation and Intercalation Induced by Polymer Crystallization and Melting in a Poly(ethylene oxide)/Organoclay Nanocomposite. Langmuir, 2005, 21, 5672-5676.	3.5	14
35	Epitaxial Phase Transformation between Cylindrical and Double Gyroid Mesophases. Materials Research Society Symposia Proceedings, 2004, 856, BB2.3.1.	0.1	1
36	Strain-Induced Molecular Orientation and Crystallization in Natural and Synthetic Rubbers under Uniaxial Deformation by In-situ Synchrotron X-ray Study. Rubber Chemistry and Technology, 2004, 77, 317-335.	1.2	81

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37	Effect of Network-Chain Length on Strain-Induced Crystallization of NR and IR Vulcanizates. Rubber Chemistry and Technology, 2004, 77, 711-723.	1.2	89
38	In situ synchrotron SAXS/WAXD studies during melt spinning of modified carbon nanofiber and isotactic polypropylene nanocomposite. Colloid and Polymer Science, 2004, 282, 802-809.	2.1	19
39	Structural developments in synthetic rubbers during uniaxial deformation byin situ synchrotron X-ray diffraction. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 956-964.	2.1	61
40	Structural formation of amorphous poly(ethylene terephthalate) during uniaxial deformation above glass temperature. Polymer, 2004, 45, 905-918.	3.8	81
41	Comparison of crystallization kinetics in various nanoconfined geometries. Polymer, 2004, 45, 2931-2939.	3.8	76
42	Shear-Induced Crystallization Precursor Studies in Model Polyethylene Blends by in-Situ Rheo-SAXS and Rheo-WAXD. Macromolecules, 2004, 37, 4845-4859.	4.8	197
43	Thermally Induced Phase Transitions and Morphological Changes in Organoclays. Langmuir, 2004, 20, 3746-3758.	3.5	82
44	Low Percolation Threshold in Nanocomposites Based on Oxidized Single Wall Carbon Nanotubes and Poly(butylene terephthalate). Macromolecules, 2004, 37, 7669-7672.	4.8	191
45	Orientation and Crystallization of Natural Rubber Network As Revealed by WAXD Using Synchrotron Radiation. Macromolecules, 2004, 37, 3299-3309.	4.8	273
46	Crystallization-Induced Undulated Morphology in Polystyrene-b-Poly(l-lactide) Block Copolymer. Macromolecules, 2004, 37, 5985-5994.	4.8	99
47	Confinement Size Effect on Crystal Orientation Changes of Poly(ethylene oxide) Blocks in Poly(ethylene oxide)-b-polystyrene Diblock Copolymers. Macromolecules, 2004, 37, 3689-3698.	4.8	130
48	Lattice Deformation of Strain-induced Crystallites in Carbon-filled Natural Rubber. Chemistry Letters, 2004, 33, 220-221.	1.3	18
49	Polymorphism of isotactic polybutene-1 as revealed by microindentation hardness. Part II: correlations to microstructure. Polymer, 2003, 44, 1641-1645.	3.8	85
50	Molecular orientation and structural development in vulcanized polyisoprene rubbers during uniaxial deformation by in situ synchrotron X-ray diffraction. Polymer, 2003, 44, 6003-6011.	3.8	120
51	Mechanism of Structural Formation by Uniaxial Deformation in Amorphous Poly(ethylene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	4.8	71
52	In-Situ Simultaneous Small- and Wide-Angle X-ray Scattering Study of Poly(ether ester) during Cold Drawing. Macromolecules, 2003, 36, 4827-4832.	4.8	34
53	Combined techniques of Raman spectroscopy and synchrotron two-dimensional x-ray diffraction forin situstudy of anisotropic system: Example of polymer fibers under deformation. Review of Scientific Instruments, 2003, 74, 3087-3092.	1.3	22
54	Orientation-induced crystallization in isotactic polypropylene melt by shear deformation. Macromolecular Symposia, 2002, 185, 105-117.	0.7	62

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55	New Insights into Structural Development in Natural Rubber during Uniaxial Deformation by In Situ Synchrotron X-ray Diffraction. Macromolecules, 2002, 35, 6578-6584.	4.8	242
56	Molecular dynamics and microstructure development during cold crystallization in poly(ether-ether-ketone) as revealed by real time dielectric and x-ray methods. Journal of Chemical Physics, 2001, 115, 3804-3813.	3.0	59
57	Structure Development during Shear Flow-Induced Crystallization of i-PP:â€‰ In-Situ Small-Angle X-ray Scattering Study. Macromolecules, 2000, 33, 9385-9394.	4.8	465