Ahmed A Hamza

List of Publications by Year
in descending order

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78	921	471509 17	610901 24
papers	citations	h-index	g-index

78	78	78	162
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Characterization of the optical-functional properties of a waveguide written by an UV-laser into a planar polymer chip. Optical Materials, 2005, 27, 1138-1148.	3.6	62
2	Multiple-beam interferometric studies on fibres with irregular transverse sections. Journal Physics D: Applied Physics, 1985, 18, 1773-1780.	2.8	55
3	Interferometric determination of optical properties of fibres with irregular transverse sections and having a skin-core structure. Journal Physics D: Applied Physics, 1985, 18, 2321-2328.	2.8	34
4	Stress birefringence in polypropylene fibres. Polymer Testing, 1987, 7, 329-343.	4.8	34
5	Multiple-beam Fizeau fringes crossing a cylindrical multi-layer fibre. Journal Physics D: Applied Physics, 1986, 19, 1175-1182.	2.8	32
6	Automatic refractive index profiling of fibers by phase analysis method using Fourier transform. Optics and Lasers in Engineering, 2002, 38, 509-525.	3.8	26
7	Interferometric determination of optical anisotropy in fibers III multilayer fibers. Journal of Applied Physics, 1991, 70, 4480-4484.	2.5	24
8	Determination of spectral dispersion curves of polypropylene fibres. Journal of Optics, 1999, 1, 359-366.	1.5	24
9	Determination of the refractive index depth profile of an UV-laser generated waveguide in a planar polymer chip. Applied Surface Science, 2004, 236, 31-41.	6.1	23
10	Optical anisotropy in polypropylene fibres as a function of the draw ratio. Journal Physics D: Applied Physics, 1987, 20, 963-968.	2.8	21
11	Refractive index and thickness determination of thin-films using Lloydâ€™s interferometer. Optics Communications, 2003, 225, 341-348.	2.1	21
12	Opto-mechanical properties of fibresâ€”5: Refractive index profile of stretched â€˜teryleneâ€™ polyester fibres. Polymer Testing, 1992, 11, 297-307.	4.8	20
13	Interferometric detection of structure deformation due to cold drawing of polypropylene fibres at high draw ratios. Journal of Optics, 2007, 9, 820-827.	1.5	20
14	Detection of the variation of the optical and geometrical parameters of fibres due to the cold drawing process. Measurement Science and Technology, 2004, 15, 831-838.	2.6	19
15	Core-index determination of a thick fibre using lens-fibre interference (LFI) technique. Optics and Lasers in Engineering, 2004, 42, 121-130.	3.8	19
16	Determination of GR-IN optical fibre parameters from transverse interferograms considering the refraction of the incident ray by the fibre. Optics Communications, 2001, 200, 131-138.	2.1	18
17	On the physical behavior of isotactic polypropylene fibers extruded at different draw-down ratios. I. Optical properties and cold-drawing. Polymer Engineering and Science, 2009, 49, 2116-2124.	3.1	18
18	An interferometric method for studying the influence of temperature on the mean refractive indices and cross-sectional area of irregular fibres. Polymer Testing, 2003, 22, 83-91.	4.8	17

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19	Detecting and avoiding the necking deformation along polypropylene fibre axis using the fringe pattern analysis of multiple-beam microinterferometry. Optics and Laser Technology, 2005, 37, 532-540.	4.6	17
20	Effect of gamma irradiation on the optical properties of fibres. Journal Physics D: Applied Physics, 1986, 19, 2443-2450.	2.8	16
21	Determination of the intrinsic birefringence of polymeric fibres. Polymer Testing, 2004, 23, 203-208.	4.8	16
22	Optothermomechanical device for the interferometric characterization of fibers. Journal of Applied Polymer Science, 2005, 95, 647-658.	2.6	16
23	Determining the optical properties of highly oriented fibres using a multiple-beam technique. Journal of Optics, 2001, 3, 421-427.	1.5	15
24	Automatic determination of refractive index profile of fibers having regular and/or irregular transverse sections considering the refraction of light rays by the fiber. Optics Communications, 2009, 282, 27-35.	2.1	15
25	Opto-mechanical properties of fibresâ€”1: Optical Anisotropy in stretched nylon 6 fibres. Polymer Testing, 1991, 10, 83-90.	4.8	14
26	Interferometric studies on the influence of temperature on the optical and dispersion parameters of GRIN optical fibre. Optics and Lasers in Engineering, 2007, 45, 145-152.	3.8	14
27	On line interferometric investigation of the neck propagation phenomena of stretched polypropylene fibre. Optics and Laser Technology, 2010, 42, 703-709.	4.6	14
28	Opto-mechanical properties of fibresâ€”4: Optical anisotropy in â€˜Teryleneâ€™ polyester fibres. Polymer Testing, 1992, 11, 233-245.	4.8	13
29	Opto-thermal properties of fibres: 3-effect of anisotropic optical parameters in polypropylene fibres as a function of annealing process. Polymer Testing, 1996, 15, 245-268.	4.8	13
30	Influence of temperature on the optical and structural properties along the diameter of: I. Polymer fibres. Journal of Physics Condensed Matter, 1999, 11, 5331-5341.	1.8	13
31	Interferometric determination of optical anisotropy in fibers 1â€•homogeneous fibers. Journal of Applied Physics, 1991, 69, 929-932.	2.5	12
32	Comparative study on interferometric techniques for measurement of the optical properties of a fibre. Journal of Optics, 1999, 1, 41-50.	1.5	11
33	The spectral dispersion curves of highly oriented fibres. Polymer Testing, 2001, 20, 847-853.	4.8	11
34	Opto-thermal behavior of polypropylene fibres using a modified hot-stage attached to the interference microscope. Polymer Testing, 2002, 21, 877-882.	4.8	11
35	Automatic determination of refractive index profile, sectional area, and shape of fibers having regular and/or irregular transverse sections. Optics and Laser Technology, 2008, 40, 1082-1090.	4.6	10
36	Interferometric determination of optical anisotropy in fibers. II. Fibers with a skinâ€“core structure. Journal of Applied Physics, 1991, 69, 7231-7235.	2.5	9

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37	Opto-Mechanical properties of fibres. 7: Relation between cold Drawing behaviour of nylon 6 fibres from an Egyptian manufacturer and their optical properties. Polymer Testing, 1996, 15, 301-316.	4.8	9
38	Interferometric determination of regular and/or irregular transverse sectional shape of homogeneous fibres. Measurement Science and Technology, 2002, 13, 1931-1936.	2.6	9
39	Influence of temperature on the optical and structural properties along the diameter of optical fibres. Optics and Lasers in Engineering, 2004, 41, 261-275.	3.8	9
40	3D refractive index profile for the characterization of necking phenomenon along stretched polypropylene fibres. Optics Communications, 2010, 283, 1684-1689.	2.1	9
41	Nonrayâ€tracing determination of the 3D refractive index profile of polymeric fibres using singleâ€frame computed tomography and digital holographic interferometric technique. Journal of Microscopy, 2015, 257, 208-216.	1.8	9
42	Interferometric determination of refractive indices and birefringence of fibres with irregular transverse sections. Journal Physics D: Applied Physics, 1986, 19, L19-L20.	2.8	8
43	Opto-mechanical properties of fibres. 2â€”Optical anisotropy in polyester fibres as a function of the draw ratio. Polymer Testing, 1991, 10, 195-203.	4.8	8
44	Optothermal properties of fibres. Journal of Materials Science, 1995, 30, 2597-2604.	3.7	8
45	Variable wavelength microinterferometry applied for irregular fibres. Journal of Optics, 2002, 4, 371-376.	1.5	8
46	Reconstruction of refractive indices distribution in 3D using a single pattern of multiple-beam interference fringes for online investigation of necking phenomenon. Polymer Testing, 2010, 29, 1031-1040.	4.8	8
47	Characterization of the mechanical and structural properties of <scp>PGA</scp>/<scp>TMC</scp> copolymer for cardiac tissue engineering. Microscopy Research and Technique, 2021, 84, 1596-1606.	2.2	8
48	Detection of necking deformation along polypropylene fibres axis at low draw ratios using multiple-beam microinterferometry. Optics and Laser Technology, 2007, 39, 681-689.	4.6	7
49	Optomechanical investigating the impact of grafting polyamideâ€6 fibers with PMMA on its intrinsic optical properties. Polymer Engineering and Science, 2020, 60, 1930-1939.	3.1	7
50	Opto-mechanical properties of fibres. 3: Optical properties of Nylon 66 fibres as a function of the draw ratio. Polymer Testing, 1991, 10, 305-314.	4.8	6
51	Spectral dispersion curves of polymeric birefringent textile fibers. Journal of Applied Polymer Science, 2002, 84, 2481-2488.	2.6	6
52	On-line opto-viscoelastic analysis of polypropylene fibres using multiple-beam Fizeau fringes in transmission and a modified creep device. Polymer International, 2010, 59, 1021-1030.	3.1	6
53	Interferometric determination of the birefringence of thermoâ€tropic polyester fibers and its copolymers of structure (PCPTâ€coâ€CPO). Journal of Applied Polymer Science, 2012, 125, 1814-1821.	2.6	6
54	A novel doubleâ€image Fizeau system for accurate investigation of anisotropic polymer fibres. Journal of Microscopy, 2014, 254, 84-94.	1.8	6

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55	Measurement of refractive indices of homogeneous fibers with regular or irregular transverse sections. Journal of Applied Physics, 1990, 68, 2639-2642.	2.5	5
56	Opto-mechanical properties of fibres. 6. Structural characteristics and optical properties of PE fibres. Polymer Testing, 1996, 15, 35-43.	4.8	5
57	Effect of temperature on the dispersion properties of polypropylene fibers. Journal of Applied Polymer Science, 2005, 98, 1135-1141.	2.6	5
58	Interferometric determination of the refractive indices and birefringence of some highly oriented fibres. Optics and Laser Technology, 2006, 38, 162-168.	4.6	5
59	Mode field distribution of an integrated-optical waveguide generated by UV-laser radiation at the surface of a planar polymer chip. Optics Communications, 2006, 262, 57-67.	2.1	3
60	Geometrical and Optical Properties of Irregular Fibers as a Function of Draw Ratio. International Journal of Polymeric Materials and Polymeric Biomaterials, 2008, 57, 343-354.	3.4	3
61	An interferometric detection of micro-cracks deformation for highly drawn polypropylene fibres. Fibers and Polymers, 2010, 11, 738-743.	2.1	3
62	A novel simultaneous photoelastic and twoâ€beam interferometric system: I. Dynamic fullâ€field evaluation of the elasticity modulus profile of polymeric fibres. Journal of Microscopy, 2014, 254, 137-145.	1.8	3
63	The influence of grafting process on the optical, geometrical, and structural parameters of nylonâ€6 fibers. Microscopy Research and Technique, 2020, 83, 56-65.	2.2	3
64	A quantitative study on using digital photoelasticity for characterising the effect of the stretching speed on the necking phenomenon. Journal of Polymer Engineering, 2020, 40, 753-762.	1.4	3
65	Fractographic characterization of isotactic polypropylene fibers. Microscopy Research and Technique, 2021, 84, 1022-1035.	2.2	3
66	Interferometric studies on multi-mode step-index optical fibres. Journal of Optics, 1998, 7, 449-456.	0.5	2
67	Opto-thermal properties of fibres: 5. Structure variations in nylon 66 fibres due to different thermal conditions. Polymer Testing, 1999, 18, 155-180.	4.8	2
68	Determining the optical and geometrical properties of irregular fibers during the dynamic cold drawing process. Journal of Applied Polymer Science, 2009, 112, 1909-1915.	2.6	2
69	FECO fringes for investigating the effect of grafting process on the dispersion properties of polyamideâ€6 fibers. Microscopy Research and Technique, 2021, 84, 3104-3115.	2.2	2
70	Photoelastic characterization of shearâ€bands in mechanically stretched polymeric fibers. Microscopy Research and Technique, 2021, , .	2.2	2
71	Investigate the degradable behavior of a poly (glycolide-co-trimethylene carbonate) suture material used in a vascular surgery. Polymer Bulletin, 2022, 79, 10783-10801.	3.3	2
72	Phase estimation for investigating the optical and mechanical properties of Monocryl suture for soft tissue approximation and ligation. Microscopy Research and Technique, 2022, 85, 3455-3465.	2.2	2

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73	Interferometric studies on fibres with irregular transverse sections. Polymer Testing, 1993, 12, 299-310.	4.8	1
74	Lensâ€“fibre interference proposed to monitor a transparent sheetâ€™s thickness variations. Applied Physics B: Lasers and Optics, 2014, 117, 1073-1080.	2.2	1
75	Computerised analysis of microinterferograms of fibrous materials. Polymer Testing, 1990, 9, 169-180.	4.8	0
76	Optical properties of cuprammonium fibres. Polymer Testing, 1993, 12, 243-256.	4.8	0
77	Interferometric Studies for the Annealing Effects on the Necking Deformation along Polypropylene Fibers. Journal of Engineered Fibers and Fabrics, 2007, 2, 155892500700200.	1.0	0
78	A proposed method to reconstruct the threeâ€dimensional dispersion profile of polymeric fibres based on variable wavelength interferometry. Journal of Microscopy, 2015, 257, 123-132.	1.8	0