Hergen Eilers

List of Publications by Year
in descending order

98 papers	2,056 citations	279798 23 h-index	254184 43 g-index
98 all docs	98 docs citations	98 times ranked	1908 citing authors

#	Article	IF	Citations
1	Monitoring Sub-surface Chemical Reactions in Heterogeneous Materials Using Wavefront-shaping-assisted Bidirectional Focusing. Optics Letters, 2022, 47, 2036-2039.	3.3	3
2	Effect of experimental parameters on wavefront-shaping-assisted bidirectional focusing in opaque media. Journal of Applied Physics, 2022, 131, 213103.	2.5	2
3	Two-color thermometric imaging of heterogeneous materials during pulsed laser heating. Applied Physics B: Lasers and Optics, 2020, 126, 1.	2.2	1
4	Genetic algorithms for focusing inside opaque media. Journal of Optics (United Kingdom), 2020, 22, 085601.	2.2	7
5	Chemically bonded thermal impulse sensors for use in extreme environments. Journal of Applied Physics, 2020, 127, 055102.	2.5	1
6	Burn Chamber Test of Ex Situ Thermal Impulse Sensors. Applied Spectroscopy, 2020, 74, 515-524.	2.2	0
7	Optical thermocouples for explosive fireballs. AIP Conference Proceedings, 2020, , .	0.4	0
8	Feedback-Assisted Wavefront Shaping for Monitoring Chemical Reactions Inside Opaque Media. , 2020, , .		0
9	Modeling ex-situ thermal impulse sensor responses to non-isothermal heating profiles. SN Applied Sciences, 2019, 1, 1.	2.9	1
10	T-jump pyrolysis and combustion of diisopropyl methylphosphonate. Combustion and Flame, 2019, 199, 69-84.	5.2	12
11	Fiber-based optical thermocouples for fast temperature sensing in extreme environments. Optical Engineering, 2019, 58, 1.	1.0	10
12	A comparison of pulsed and continuous lasers for highâ€temperature Raman measurements of anhydrite. Journal of Raman Spectroscopy, 2018, 49, 862-871.	2.5	2
13	Nanoscale Ex Situ Thermal Impulse Sensors for Structural Fire Forensics. Applied Spectroscopy, 2018, 72, 1310-1321.	2.2	5
14	Structural and spectroscopic characterization of irreversible phase changes in rapidly heated precursors of europium-doped titania nanoparticles. Journal of Solid State Chemistry, 2018, 258, 15-23.	2.9	6
15	Soluble Sm-based ternary complexes for non-contact molecular thermometry. Journal of Luminescence, 2018, 204, 341-348.	3.1	6
16	Thermal impulse sensors for use in explosions. AIP Conference Proceedings, 2018, , .	0.4	2
17	Raman spectroscopy of oxygen carrier particles in harsh environments. , 2018, , .		2
18	Authentication via wavefront-shaped optical responses. , 2018, , .		0

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19	Sub-second laser heating of thermal impulse sensors. AIP Conference Proceedings, 2017, , .	0.4	9
20	Luminescent sensors for tracking spatial particle distributions in an explosion. AIP Conference Proceedings, 2017, , .	0.4	5
21	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0034.gif" overflow="scroll"><mml:msup><mml:mrow><mml:mi>Dy</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn><mml:mo>+</ yttrium complex molecular crystals for two-color thermometry in heterogeneous materials. Journal of Luminescence, 2017, 188, 238-245.	3.1	20
22	Two-color thermosensors based on [Y $$_{1-x}$$ 1 - x Dy $$_x$$ x (acetylacetonate) $$_3$$ 3 (1,10-phenanthroline)] molecular crystals. Applied Physics B: Lasers and Optics, 2017, 123, 1.	2.2	7
23	Spectroscopic Signatures of Sub-Second Laser-Calcined Dy³⁺-Doped Oxide Precursors for Use in ex Situ Thermal Impulse Sensors. Journal of Physical Chemistry C, 2017, 121, 20955-20966.	3.1	5
24	Initial mechanisms for the dissociation of carbon from electronically-excited nitrotoluene molecules. AIP Advances, 2017, 7, 125120.	1.3	0
25	Initial tamper tests of novel tamper-indicating optical physical unclonable functions. Applied Optics, 2017, 56, 2863.	2.1	20
26	Fiber-based Optical Thermocouples for In-Situ Temperature Sensing in Extreme Environments. , 2017, , .		0
27	Raman Spectroscopy for the On Line Analysis of Oxidation States of Oxygen Carrier Particles. , 2017, , .		0
28	Spectroscopic determination of thermal impulse in sub-second heating events using lanthanide-doped oxide precursors and phenomenological modeling. Journal of Applied Physics, 2016, 120, 083102.	2.5	11
29	Effect of experimental parameters on optimal reflection of light from opaque media. Physical Review A, 2016, 93, .	2.5	13
30	Random lasing and reversible photodegradation in disperse orange 11 dye-doped PMMA with dispersed ZrO₂nanoparticles. Journal of Optics (United Kingdom), 2016, 18, 015403.	2.2	16
31	Structural fire forensics: using optically active nanoparticles to determine a fireâ€™s thermal impulse. , 2016, , .		0
32	Spectroscopic Changes of Cr3+Doped Al2O3 Precursors Due to Irreversible Phase Changes During Subsecond Laser Heating. , 2016, , .		0
33	Mimicking explosive heating profiles: feedback controlled sub-second laser heating using a three-color NIR pyrometer. , 2016, , .		0
34	Stability of optimal-wave-front-sample coupling under sample translation and rotation. Physical Review A, 2015, 91, .	2.5	8
35	Photodegradation and self-healing in a Rhodamine 6G dye and $$hbox {Y}_{2}hbox {O}_{3}$$ nanoparticle-doped polyurethane random laser. Applied Physics B: Lasers and Optics, 2015, 120, 1-12.	2.2	32
36	Self-healing organic-dye-based random lasers. Optics Letters, 2015, 40, 577.	3.3	25

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37	Irreversible phase transitions due to laser-based T-jump heating of precursor Eu:ZrO2/Tb:Y2O3 core/shell nanoparticles. Journal of Solid State Chemistry, 2015, 229, 350-357.	2.9	10
38	Microgenetic optimization algorithm for optimal wavefront shaping. Applied Optics, 2015, 54, 1485.	1.8	24
39	Synthesis and characterizations of spherical Eu:La2O3 and related core/shell nanoparticles. Powder Technology, 2015, 271, 255-261.	4.2	14
40	Reversible photodegradation of organic-dye-based random lasers. , 2015, , .		0
41	Low-threshold and narrow linewidth diffusive random lasing in rhodamine 6G dye-doped polyurethane with dispersed ZrO_2 nanoparticles. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 2363.	2.1	10
42	Effect of experimental parameters on optimal transmission of light through opaque media. Physical Review A, 2014, 90, .	2.5	19
43	Optical and Morphological Characterization of Tb0.01Zr0.99O2/(Precursor Eu0.02Y1.98O3) Core/Shell Nanoparticles as Temperature Sensors in Fast Heating Events. Journal of Physical Chemistry C, 2014, 118, 5563-5569.	3.1	9
44	Er,Yb:ZrO₂/Eu:Y₂O₃ core/shell assemblies as potential temperature sensors in explosions. Journal of Physics: Conference Series, 2014, 500, 142012.	0.4	0
45	Observation of atomic carbon during photodissociation of nitrotoluenes in the vapor phase. Proceedings of SPIE, 2014, , .	0.8	0
46	Optical Signatures of Disordered Materials for Authentication Applications. , 2014, , .		4
47	Spatial Light Modulator Controlled Random Lasing in Rhodamine 6G Dye-Doped Polyurethane with Dispersed ZrO2 Nanoparticles.. , 2014, , .		3
48	Photoluminescence spectroscopy of 2-nitrotoluene and its photo and photothermal decomposition derivatives. Journal of Photochemistry and Photobiology A: Chemistry, 2013, 268, 50-57.	3.9	6
49	Temperature-Dependent Phase Changes in Multicolored Er_{<i>x</i>}Yb_{<i>y</i>}Zr_{1â€“<i>x</i>â€“<i>y</i>}O₂/Eu_{0.02}Y<sub>1.98 Core/Shell Nanoparticles. Journal of Physical Chemistry C, 2013, 117, 14427-14434.	3.1	22
50	Spectroscopic observation of neutral carbon during photodissociation of explosive-related compounds in the vapor phase. Applied Optics, 2013, 52, 7083.	1.8	4
51	Nanosized Thermosensors for Use in Explosions. Materials Research Society Symposia Proceedings, 2013, 1519, 1.	0.1	0
52	Irreversible phase transitions in doped metal oxides for use as temperature sensors in explosions. AIP Conference Proceedings, 2012, , .	0.4	6
53	UV and 532 nm Photo-Dissociation of 2-Nitrotoluene: Observation of Electronically-Excited NO; Emission from Carbon (I); N2â€“NO Energy Transfer; and Stabilization of 2-Nitrotoluene-Ar Clusters. Applied Physics B: Lasers and Optics, 2012, 108, 189-196.	2.2	7
54	Spectroscopic Properties of Nanophase Eu-Doped ZrO₂ and Its Potential Application for Fast Temperature Sensing Under Extreme Conditions. Journal of Physical Chemistry C, 2012, 116, 21629-21634.	3.1	37

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55	Fast Pyroprobe-Heating-Induced Structural Changes of Y₂O₃:Eu Precursors and Their Optical Signatures. Journal of Physical Chemistry C, 2012, 116, 1687-1693.	3.1	26
56	A factorial design approach for pressureless sintering in air of (Pb,La)(Zr,Ti)O3 synthesized via coprecipitation of oxideâ€“alkoxides. Ceramics International, 2012, 38, 775-786.	4.8	3
57	Potential interference mechanism for the detection of explosives via laser-based standoff techniques. Applied Physics B: Lasers and Optics, 2012, 106, 473-482.	2.2	12
58	Correlation of optical properties and temperature-induced irreversible phase transitions in europium-doped yttrium carbonate nanoparticles. Journal of Solid State Chemistry, 2011, 184, 3280-3288.	2.9	32
59	Stabilization of tetragonal phase in ZrO2:Eu by rapid thermal heating. Chemical Physics Letters, 2011, 515, 122-126.	2.6	28
60	Synthesis of silver/SiO2/Eu:Lu2O3 coreâ€“shell nanoparticles and their polymer nanocomposites. Powder Technology, 2011, 210, 157-166.	4.2	20
61	Light-induced structural changes in Eu-doped (Pb,La)(Zr,Ti)O3 ceramics. Applied Physics Letters, 2011, 98, 171906.	3.3	20
62	Fluorescence lifetime modification in Eu:Lu2O3 nanoparticles in the presence of silver nanoparticles. Journal of Alloys and Compounds, 2010, 500, 96-101.	5.5	15
63	From silver nanoparticles to thin films: Evolution of microstructure and electrical conduction on glass substrates. Journal of Physics and Chemistry of Solids, 2009, 70, 459-465.	4.0	76
64	Infrared and photoelectron spectroscopy study of vapor phase deposited poly (3-hexylthiophene). Applied Surface Science, 2009, 255, 8593-8597.	6.1	51
65	Effect of particle/grain size on the optical properties of Y2O3:Er,Yb. Journal of Alloys and Compounds, 2009, 474, 569-572.	5.5	35
66	Photoemission Spectroscopy and Atomic Force Microscopy Investigation of Vapor-Phase Codeposited Silver/Poly(3-hexylthiophene) Composites. ACS Applied Materials & Interfaces, 2009, 1, 2721-2728.	8.0	17
67	Electrical conductivity of thin-film composites containing silver nanoparticles embedded in a dielectric fluoropolymer matrix. Thin Solid Films, 2008, 517, 575-581.	1.8	50
68	Synthesis and characterization of CO2-laser-evaporated ZnS:Mn thin films. Materials Letters, 2008, 62, 967-969.	2.6	18
69	Fabrication, optical transmittance, and hardness of IR-transparent ceramics made from nanophase yttria. Journal of the European Ceramic Society, 2007, 27, 4711-4717.	5.7	92
70	Large broadband visible to infrared plasmonic absorption from Ag nanoparticles with a fractal structure embedded in a Teflon AFÂ® matrix. Applied Physics Letters, 2006, 88, 013103.	3.3	79
71	Synthesis and characterization of nanophase yttria co-doped with erbium and ytterbium. Materials Letters, 2006, 60, 214-217.	2.6	24
72	Teflon AF/Ag nanocomposites with tailored optical properties. Journal of Materials Research, 2006, 21, 2168-2171.	2.6	19

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73	Synthesis and consolidation of nanophase yttria (Y 2 O 3). , 2005, , .		0
74	Eye-safe Er,Yb:Y 2 O 3 ceramic laser materials. , 2005, , .		0
75	<title>Avionic applications of resonant microcavity anodes</title>. , 1999, , .		1
76	<title>Resonant microcavity projection displays</title>. , 1997, , .		1
77	Spectra and dynamics of monoclinic Eu2O3 and Eu3+:Y2O3 nanocrystals. Journal of Luminescence, 1997, 75, 1-10.	3.1	174
78	Synthesis and characterization of metal-oxide nanocrystals prepared byCO[sub 2]-laser-heated vaporization/condensation. Journal of the Society for Information Display, 1996, 4, 213.	2.1	4
79	Laser spectroscopy of nanocrystalline Eu2O3 and Eu3+:Y2O3. Chemical Physics Letters, 1996, 251, 74-78.	2.6	154
80	Synthesis of nanophase ZnO, Eu2O3, and ZrO2 by gas-phase condensation with cw-CO2 laser heating. Materials Letters, 1995, 24, 261-265.	2.6	71
81	Stress effects on the fluorescence spectra of tetravalent chromium in some crystalline hosts. Journal of Luminescence, 1994, 59, 279-287.	3.1	19
82	Near infrared emission at 1.35 Î¼m in Cr doped glass. Journal of Luminescence, 1994, 60-61, 119-122.	3.1	39
83	Site-selective spectroscopy of Eu3+ ions in fluoride glasses. Journal of Luminescence, 1994, 59, 81-87.	3.1	41
84	Observation of avalanche-like behavior in Tm 3+ : Y 2 O 3. Journal of Luminescence, 1994, 60-61, 668-671.	3.1	14
85	Effects of uniaxial stress on the metastable level in Cr4+: Y2SiO5. Optics Communications, 1994, 106, 218-222.	2.1	6
86	Origin of the NIR emission in Cr-doped forsterite, Y 3 Al 5 O 12 and Y 2 SiO 5. Journal of Luminescence, 1994, 60-61, 158-161.	3.1	17
87	Spectroscopy and dynamics ofCr4+:Y3Al5O12. Physical Review B, 1994, 49, 15505-15513.	3.2	129
88	The optical center MnO3â^ˆ'4 in Y2SiO5:Mn, X (Xî—»Al, Ca). Chemical Physics Letters, 1993, 213, 163-167.	2.6	15
89	The near-infrared emission of Cr:Mn2SiO4 and Cr:MgCaSiO4. Chemical Physics Letters, 1993, 212, 109-112.	2.6	13
90	Refractive index changes in Ti3+-doped glass. Optics Communications, 1993, 101, 188-191.	2.1	0

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91	Near infrared luminescence properties of the laser material Cr: Y2SiO5. Journal of Luminescence, 1993, 55, 293-301.	3.1	46
92	Temperature-dependent beam-deflection spectroscopy of Ti^3+ -doped sapphire. Journal of the Optical Society of America B: Optical Physics, 1993, 10, 584.	2.1	4
93	Spectroscopic properties of Cr^4+:Lu_3Al_5O_12. Optics Letters, 1993, 18, 1928.	3.3	19
94	Performance of a Cr:YAG laser. IEEE Journal of Quantum Electronics, 1993, 29, 2508-2512.	1.9	86
95	Photoelastic effect inTi3+-doped sapphire. Physical Review B, 1992, 45, 9604-9610.	3.2	19
96	Saturation of 1.064 Î¼m absorption in Cr,Ca:Y3Al5O12 crystals. Applied Physics Letters, 1992, 61, 2958-2960.	3.3	153
97	Optically induced lensing effects in Nd^3+-doped laser glass measured by photothermal beam-deflection spectroscopy. Optics Letters, 1992, 17, 213.	3.3	6
98	Laser-induced acoustic waves and index of refraction changes in Ti3+- doped sapphire. Optical Materials, 1992, 1, 311-315.	3.6	2