Baerbel Rethfeld

List of Publications by Year
in descending order

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Version: 2024-02-01

27 papers	1,156 citations	840776 11 h-index	642732 23 g-index
27 all docs	27 docs citations	27 times ranked	1265 citing authors

#	Article	IF	Citations
1	Modelling ultrafast laser ablation. Journal Physics D: Applied Physics, 2017, 50, 193001.	2.8	331
2	Fundamentals of ultrafast laserâ€“material interaction. MRS Bulletin, 2016, 41, 960-968.	3.5	185
3	<title>Theory of ultrashort laser pulse interaction with a metal</title>. , 1997, , .		174
4	Femtosecond formation dynamics of the spin Seebeck effect revealed by terahertz spectroscopy. Nature Communications, 2018, 9, 2899.	12.8	131
5	The mechanism of nanobump formation in femtosecond pulse laser nanostructuring of thin metal films. Applied Physics A: Materials Science and Processing, 2008, 92, 791-796.	2.3	95
6	Nanocrystalline structure of nanobump generated by localized photoexcitation of metal film. Journal of Applied Physics, 2010, 107, .	2.5	59
7	Ultrafast magnetization dynamics in Nickel: impact of pump photon energy. Journal of Physics Condensed Matter, 2017, 29, 244002.	1.8	26
8	Energy and Momentum Distribution of Surface Plasmon-Induced Hot Carriers Isolated via Spatiotemporal Separation. ACS Nano, 2021, 15, 19559-19569.	14.6	17
9	Modeling the transient optical parameters in laser-excited band gap materials. Optical Engineering, 2016, 56, 011015.	1.0	15
10	Transient electron excitation and nonthermal electron-phonon coupling in dielectrics irradiated by ultrashort laser pulses. Physical Review B, 2017, 95, .	3.2	14
11	Key role of surface plasmon polaritons in generation of periodic surface structures following single-pulse laser irradiation of a gold step edge. Nanophotonics, 2022, 11, 359-367.	6.0	14
12	Numerical Investigation of Ultrashort Laser-Ablative Synthesis of Metal Nanoparticles in Liquids Using the Atomistic-Continuum Model. Molecules, 2020, 25, 67.	3.8	13
13	Isostructural elemental crystals in the presence of hot carriers. Physical Review B, 2015, 91, .	3.2	12
14	Dynamic all-optical control in ultrashort double-pulse laser ablation. Applied Surface Science, 2021, 537, 147940.	6.1	11
15	Formation of Periodic Nanoridge Patterns by Ultrashort Single Pulse UV Laser Irradiation of Gold. Nanomaterials, 2020, 10, 1998.	4.1	10
16	Solving a System of Differential Equations Containing a Diffusion Equation with Nonlinear Terms on the Example of Laser Heating in Silicon. Applied Sciences (Switzerland), 2020, 10, 1853.	2.5	9
17	Role of primary and secondary processes in the ultrafast spin dynamics of nickel. Applied Physics Letters, 2022, 120, .	3.3	9
18	Fundamentals of Scanning Surface Structuring by Ultrashort Laser Pulses: From Electron Diffusion to Final Morphology. Advanced Photonics Research, 2022, 3, .	3.6	9

#	Article	IF	Citations
19	Influence of Electronic Non-Equilibrium on Energy Distribution and Dissipation in Aluminum Studied with an Extended Two-Temperature Model. Nanomaterials, 2022, 12, 1655.	4.1	8
20	Simultaneous Manipulation of the Optical and Wettability Properties of Metal Surfaces Using 150 kHz Femtosecond Fiber Laser. Applied Sciences (Switzerland), 2020, 10, 6207.	2.5	6
21	Nonequilibrium band occupation and optical response of gold after ultrafast XUV excitation. Scientific Reports, 2022, 12, 4693.	3.3	3
22	Magnetic-field assisted laser ablation of silicon. Journal of the Optical Society of America B: Optical Physics, 2021, 38, E1.	2.1	2
23	Influence of diffusive transport on ultrafast magnetization dynamics. Applied Physics Letters, 2022, 120, .	3.3	2
24	Ultrafast magnetization dynamics of Mn-doped L10 FePt with spatial inhomogeneity. Journal of Magnetism and Magnetic Materials, 2020, 502, 166477.	2.3	1
25	Electron dynamics in silver after ultrafast laser-excitation. , 2018, , .		0
26	Relaxation processes in laser-excited dielectrics. , 2018, , .		0
27	Experimental and theoretical study of the ablation of silicon with THz bursts of fs laser pulses. , 2022, , .		0