

# Norbert PaÅ,ka

## List of Publications by Year in descending order

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152  
papers

1,107  
citations

430754

18  
h-index

477173

29  
g-index

153  
all docs

153  
docs citations

153  
times ranked

1114  
citing authors

#	ARTICLE	IF	CITATIONS
1	Sensors and Systems for the Detection of Explosive Devices - An Overview. Metrology and Measurement Systems, 2012, 19, 3-28.	1.4	88
2	Identification of concealed materials, including explosives, by terahertz reflection spectroscopy. Optical Engineering, 2013, 53, 031202.	0.5	58
3	Monolithic high-index contrast grating: a material independent high-reflectance VCSEL mirror. Optics Express, 2015, 23, 11674.	1.7	57
4	Detailed non-destructive evaluation of UHMWPE composites in the terahertz range. Optical and Quantum Electronics, 2014, 46, 515-525.	1.5	43
5	Passive imaging of concealed objects in terahertz and long-wavelength infrared. Applied Optics, 2015, 54, 3826.	2.1	42
6	3-D-Printed Flat Optics for THz Linear Scanners. IEEE Transactions on Terahertz Science and Technology, 2015, 5, 314-316.	2.0	41
7	Polymorphism of Resorcinol Explored by Complementary Vibrational Spectroscopy (FT-RS, THz-TDS.) Tj ETQq1 1 0.784314 rgBT /Overlo 2015, 119, 1681-1695.	1.2	35
8	Precise Determination of Thicknesses of Multilayer Polyethylene Composite Materials by Terahertz Time-Domain Spectroscopy. Journal of Infrared, Millimeter, and Terahertz Waves, 2015, 36, 578-596.	1.2	35
9	Impact of additives and processing on microstructure and dielectric properties of willemite ceramics for LTCC terahertz applications. Journal of the European Ceramic Society, 2020, 40, 362-370.	2.8	35
10	Non-destructive evaluation of puncture region in polyethylene composite by terahertz and X-ray radiation. Composites Part B: Engineering, 2016, 92, 315-325.	5.9	33
11	THz Reflection Spectroscopy of Explosives Measured by Time Domain Spectroscopy. Acta Physica Polonica A, 2011, 120, 713-715.	0.2	33
12	A Sagnac-Michelson fibre optic interferometer: Signal processing for disturbance localization. Opto-electronics Review, 2007, 15, .	2.4	32
13	Characterization of prospective explosive materials using terahertz time-domain spectroscopy. Applied Optics, 2016, 55, 4575.	2.1	30
14	Quantitative Analysis of Hexahydro-1,3,5-trinitro-1,3,5, Triazine/Pentaerythritol Tetranitrate (RDX&eacPETN) Mixtures by Terahertz Time Domain Spectroscopy. Applied Spectroscopy, 2015, 69, 1464-1471.	1.2	25
15	Refractive indices and birefringence of hybrid liquid crystal - nanoparticles composite materials in the terahertz region. AIP Advances, 2015, 5, .	0.6	25
16	Terahertz Shielding Properties of Carbon Black Based Polymer Nanocomposites. Materials, 2021, 14, 835.	1.3	22
17	High order kinoforms as a broadband achromatic diffractive optics for terahertz beams. Optics Express, 2014, 22, 3137.	1.7	21
18	3D Non-destructive Imaging of Punctures in Polyethylene Composite Armor by THz Time Domain Spectroscopy. Journal of Infrared, Millimeter, and Terahertz Waves, 2015, 36, 770-788.	1.2	21

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19	Low temperature sintering of Zn <sub>4</sub> B <sub>6</sub> O <sub>13</sub> based substrates, their microstructure and dielectric properties up to the THz range. <i>Journal of Alloys and Compounds</i> , 2020, 819, 153025.	2.8	19
20	THz spectroscopy and imaging in security applications. , 2012, , .		15
21	Hidden Object Detection System Based on Fusion of THz and VIS Images. <i>Acta Physica Polonica A</i> , 2013, 124, 490-493.	0.2	15
22	THz Beam Shaping Based on Paper Diffractive Optics. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2016, 6, 568-575.	2.0	15
23	Spectral investigation of nematic liquid crystals with high optical anisotropy at THz frequency range. <i>Phase Transitions</i> , 2012, 85, 337-344.	0.6	14
24	Transmission and Reflection Terahertz Spectroscopy of Insensitive Melt-Cast High-Explosive Materials. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2016, 37, 977-992.	1.2	13
25	Terahertz Detection of Wavelength-Size Metal Particles in Pressboard Samples. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2016, 6, 99-107.	2.0	13
26	LTCC and Bulk Zn <sub>4</sub> B <sub>6</sub> O <sub>13</sub> –Zn <sub>2</sub> SiO <sub>4</sub> Composites for Submillimeter Wave Applications. <i>Materials</i> , 2021, 14, 1014.	1.3	13
27	Spectroscopy of Explosive Materials in the THz Range. <i>Acta Physica Polonica A</i> , 2010, 118, 1229-1231.	0.2	13
28	Spectral Properties of Nematic Liquid Crystal Mixtures Composed with Long and Short Molecules in THz Frequency Range. <i>Molecular Crystals and Liquid Crystals</i> , 2012, 561, 74-81.	0.4	12
29	Improvement of passive THz camera images. , 2012, , .		11
30	Polarization-insensitive metamaterial absorber of selective response in terahertz frequency range. <i>Journal of Optics (United Kingdom)</i> , 2014, 16, 105104.	1.0	10
31	THz detectors based on Si-CMOS technology field effect transistors – advantages, limitations and perspectives for THz imaging and spectroscopy. <i>Opto-electronics Review</i> , 2018, 26, 261-269.	2.4	10
32	Structural, Thermal and Dielectric Properties of Low Dielectric Permittivity Cordierite-Mullite-Glass Substrates at Terahertz Frequencies. <i>Materials</i> , 2021, 14, 4030.	1.3	9
33	THz spectroscopy of explosive-related simulants and oxidizers. <i>Bulletin of the Polish Academy of Sciences: Technical Sciences</i> , 2011, 59, 445-447.	0.8	8
34	Comparison of terahertz technologies for detection and identification of explosives. <i>Proceedings of SPIE</i> , 2014, , .	0.8	8
35	Terahertz properties of liquid crystals doped with ferroelectric BaTiO <sub>3</sub> nanoparticles. <i>Liquid Crystals</i> , 2017, 44, 1207-1215.	0.9	8
36	Recent development of fibre optic sensors for perimeter security. , 0, , .		7

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37	Influence of surface of explosive on its detection and identification using the SDA method for analysis of the reflected THz signal. Proceedings of SPIE, 2013, , .	0.8	7
38	Vibrational Response of Felodipine in the THz Domain: Optical and Neutron Spectroscopy Versus Plane-Wave DFT Modeling. Journal of Infrared, Millimeter, and Terahertz Waves, 2020, 41, 1301-1336.	1.2	7
39	Fiber optic perimeter protection sensor with intruder localization. , 2004, , .		6
40	Integrated radar-camera security system: experimental results. Proceedings of SPIE, 2011, , .	0.8	6
41	Efficiency of the detection and identification of ceramic explosive using the reflected THz signal. Proceedings of SPIE, 2012, , .	0.8	6
42	Moisture detection in composites by terahertz spectroscopy. Journal of Physics: Conference Series, 2015, 628, 012100.	0.3	6
43	Processing of AlGaAs/GaAs quantum-cascade structures for terahertz laser. Journal of Nanophotonics, 2015, 9, 093079.	0.4	6
44	Towards Fingerprint Spoofing Detection in the Terahertz Range. Sensors, 2020, 20, 3379.	2.1	6
45	Terahertz Frequency Domain Spectroscopy Identification System Based on Decision Trees. Acta Physica Polonica A, 2012, 122, 891-895.	0.2	6
46	Demodulation of output signals from unbalanced fibre optic Michelson interferometer. , 0, , .		5
47	The method of the spectral dynamics analysis of reflected signal for problem of identification of substance. Proceedings of SPIE, 2011, , .	0.8	5
48	Increasing the instrumental resolution of a commercially available passive THz camera due to computer treatment of image. , 2012, , .		5
49	Multispectral concealed weapon detection in visible, infrared, and terahertz. Proceedings of SPIE, 2014, , .	0.8	5
50	Face re-identification in thermal infrared spectrum based on ThermalFaceNet neural network. , 2018, , .		5
51	Monitoring of air voids at plastic-metal interfaces by terahertz radiation. Infrared Physics and Technology, 2020, 104, 103119.	1.3	5
52	Sintering, Microstructure, and Dielectric Properties of Copper Borates for High Frequency LTCC Applications. Materials, 2021, 14, 4017.	1.3	5
53	Comparison of spectra of materials measured by Time Domain and Fourier Transform Spectroscopy in Terahertz range. Photonics Letters of Poland, 2011, 3, .	0.2	5
54	Investigation of concealed objects detection in visible, infrared and terahertz ranges of radiation. Photonics Letters of Poland, 2013, 5, .	0.2	5

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55	Multisensor systems for security of critical infrastructures: concept, data fusion, and experimental results. Proceedings of SPIE, 2011, , .	0.8	4
56	An influence of the absolute phase of THz pulse on linear and nonlinear medium response. , 2011, , .		4
57	Increasing the quality of image of a commercially available passive THz camera due to computer processing of image. Proceedings of SPIE, 2012, , .	0.8	4
58	Detection and identification of compound explosive using the SDA method of the reflected THz signal. , 2012, , .		4
59	Detection of the THz waves from the 5m distance. Proceedings of SPIE, 2013, , .	0.8	4
60	Detection of covered materials in the TDS-THz setup. Proceedings of SPIE, 2013, , .	0.8	4
61	Discrimination and identification of RDX/PETN explosives by chemometrics applied to terahertz time-domain spectral imaging. , 2015, , .		4
62	Liquid crystal phase shifter for THz radiation with cholesteric liquid crystal. Molecular Crystals and Liquid Crystals, 2017, 657, 51-55.	0.4	4
63	Monitoring the role of enantiomers in the surface modification and adsorption process of polymers imprinted by chiral molecules: theory and practice. Journal of Materials Science, 2020, 55, 10626-10642.	1.7	4
64	Focusing with 2D Square Photonic Crystal with Concavo-Concavo Boundaries. Acta Physica Polonica A, 2009, 116, 368-370.	0.2	4
65	Complex THz Reflectance Spectra of Hexogen Measured for Various Surfaces. Acta Physica Polonica A, 2012, 122, 854-857.	0.2	4
66	Processing of THz images acquired by passive camera. Photonics Letters of Poland, 2012, 4, .	0.2	4
67	Modal interference fiber optic sensor. , 2004, 5611, 225.		3
68	<title>Optimal contrast function in the unbalanced fiber optic Michelson interferometer for dislocation sensor</title>. , 2004, , .		3
69	Efficiency of the detection of explosive using the spectral dynamics analysis of reflected signal. Proceedings of SPIE, 2011, , .	0.8	3
70	Liquid crystal-tunable metamaterial absorber for THz frequency range. , 2013, , .		3
71	Terahertz and Raman spectra of non-centrosymmetrical organic molecular crystals. Optical Materials, 2014, 37, 28-35.	1.7	3
72	High-contrast grating reflectors for 980 nm vertical-cavity surface-emitting lasers. , 2015, , .		3

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73	SU-8 based planar metamaterials with fourfold symmetry as selective terahertz absorbers. Opto-electronics Review, 2018, 26, 329-337.	2.4	3
74	Benzyltrimethylammonium cadmium dicyanamide with polar order in multiple phases and prospects for linear and nonlinear optical temperature sensing. Dalton Transactions, 2021, 50, 10580-10592.	1.6	3
75	Thermal Face Verification through Identification. Sensors, 2021, 21, 3301.	2.1	3
76	Detection of Inflatable Boats and People in Thermal Infrared with Deep Learning Methods. Sensors, 2021, 21, 5330.	2.1	3
77	Sensing properties of photonic crystal fibers. European Physical Journal Special Topics, 2005, 129, 143-145.	0.2	2
78	Conventional and photonic crystal optical fibre for localization sensor. European Physical Journal Special Topics, 2006, 137, 157-160.	0.2	2
79	Simple method for determination of photonic crystal fibers geometry. , 2007, , .		2
80	Military application of non-destructive properties of THz radiation. , 2012, , .		2
81	The evaluation methodology of THz-VIS fused images. , 2013, , .		2
82	3D printed flat optics and InP heterojunction bipolar transistor based-detector for THz imaging. , 2015, , .		2
83	THz Reflection Spectra of Different Materials, Including Explosives, Measured at a Distance up to 5 m. Acta Physica Polonica A, 2015, 127, 689-692.	0.2	2
84	Al <sub>0.45</sub> Ga <sub>0.55</sub> As / GaAs -based single-mode distributed-feedback quantum-cascade lasers with surface gratings. Journal of Nanophotonics, 2017, 11, 026004.	0.4	2
85	AlGaAs/GaAs Terahertz Quantum Cascade Laser with Gold-Based Metal "Metal Waveguide. NATO Science for Peace and Security Series B: Physics and Biophysics, 2017, , 145-149.	0.2	2
86	THz, Raman, IR and DFT studies of noncentrosymmetric metal dicyanamide frameworks comprising benzyltrimethylammonium cations. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 251, 119416.	2.0	2
87	Terahertz Spectra of Explosives Measured by Optical Parametric Oscillator-Based System and Time Domain Spectroscopy. Acta Physica Polonica A, 2012, 122, 946-949.	0.2	2
88	Detection of THz nanosecond pulses by fast Hot Electron Bolometer. Photonics Letters of Poland, 2012, 4, .	0.2	2
89	<title>Sensitivity of perimeter sensor based on Sagnac interferometer</title>. , 2004, , .		1
90	<title>Fiber sensors for optic cable monitoring</title>. , 2004, , .		1

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91	Contrastometric Fiber Optic Elongation Sensor. , 2006, , .		1
92	Elongation sensitivity of photonic crystal fibers. European Physical Journal: Special Topics, 2008, 154, 143-147.	1.2	1
93	Modelling of thermal emissivity of covered bulk explosive materials in the THz range. Proceedings of SPIE, 2009, , .	0.8	1
94	Non-destructive terahertz investigations of polyethylene composite materials. , 2011, , .		1
95	THz-TDS spectroscopy of selected organic crystalline forms. , 2012, , .		1
96	Hot electron bolometer for detection of fast terahertz pulses from optical parametric oscillator. , 2012, , .		1
97	Processing of AlGaAs/GaAs QC structures for terahertz laser. , 2014, , .		1
98	Textile influence on remote identification of explosives in the THz range. , 2015, , .		1
99	Chemical imaging and quantification of RDX/PETN mixtures by PLS applied on terahertz time-domain spectroscopy. , 2015, , .		1
100	The influence of smoke on the THz imaging. Photonics Letters of Poland, 2012, 4, .	0.2	1
101	Face recognition in the thermal infrared domain. , 2017, , .		1
102	Optoelectronic tracking system for shooting simulator - tests in a virtual reality application. Photonics Letters of Poland, 2020, 12, 61.	0.2	1
103	SELECTED ASPECTS OF TERAHERTZ SPECTROSCOPY IN PHARMACEUTICAL SCIENCES. Acta Poloniae Pharmaceutica, 2015, 72, 851-66.	0.3	1
104	Fiber optic polarizer with D-type waveguide. , 2000, 4239, 217.		0
105	Investigations of temperature and strain properties of fiber Bragg grating for dislocation sensors. , 2003, , .		0
106	Simulations and experimental research of fiber optic contrast-based dislocation sensor. , 2004, , .		0
107	Novel fiber optic contrast-based sensor. , 2004, , .		0
108	<title>Linearization of periodic contrast function for fiber optic dislocation sensor</title>. , 2004, , .		0

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109	Experimental results of fiber optic contrast-sensitive dislocation sensor. , 2005, , .		0
110	Phase sensitivity of the photonic crystal fibers. , 2005, , .		0
111	Physical aspects of photonic crystal fibers. European Physical Journal Special Topics, 2005, 129, 159-164.	0.2	0
112	Comparative study of phase sensitivity of conventional and index-guiding photonic crystal fibres. , 0, , .		0
113	Physical Aspects of Photonic Crystal Fibers. , 2006, , .		0
114	Core-ring Photonic Crystal Fibers for sensing. European Physical Journal: Special Topics, 2008, 154, 139-142.	1.2	0
115	Influence of phlegmatization on spectra of explosives in THz range. , 2010, , .		0
116	Influence of packaging on spectra of materials in THz range. Proceedings of SPIE, 2010, , .	0.8	0
117	LO-TO splitting in terahertz measurements of NLO molecular crystals. , 2011, , .		0
118	Experimental verification of the explosives identification model in THz range. Proceedings of SPIE, 2011, , .	0.8	0
119	Some aspects of far-infrared spectroscopy of explosive materials. , 2011, , .		0
120	Terahertz properties of metallic layers and grids. , 2012, , .		0
121	Terahertz measurements of selected crystalline forms. , 2012, , .		0
122	FIR and Raman spectra of organic molecular crystals. , 2012, , .		0
123	Thermal human phantom for testing of millimeter wave cameras. , 2012, , .		0
124	Terahertz spectra of materials measured by the OPO-based system. , 2013, , .		0
125	THz-VIS passive imaging system for visualization of hidden threats. , 2013, , .		0
126	Multispectral THz-VIS passive imaging system for hidden threats visualization. , 2013, , .		0



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127	The evaluation of THz-VIS fused images. , 2013, , .		0
128	Extension of the p-Spectrum Method to the Higher Frequencies. Acta Physica Polonica A, 2013, 124, 534-537.	0.2	0
129	Reflection measurement of Hexogen from 5-m distance. , 2013, , .		0
130	THz structures fabricated in laser direct patterning. , 2014, , .		0
131	Application of THz radiation to polyethylene composite materials. , 2014, , .		0
132	Resonator structures on AlN ceramics surface treated by laser radiation. , 2014, , .		0
133	Investigations on time stability of passive THz imaging. , 2014, , .		0
134	Transfer matrix method for precise determination of thicknesses in a 150-ply polyethylene composite material. , 2015, , .		0
135	Non-destructive testing of polyethylene composite by terahertz radiation. , 2016, , .		0
136	Al <sub>0.45</sub> Ga <sub>0.55</sub> As/GaAs-based single-mode distributed-feedback quantum-cascade lasers with surface gratings. , 2017, , .		0
137	Optics for free space THz transmission. , 2018, , .		0
138	APPLICATIONS OF THE TERAHERTZ ATR SPECTROSCOPY TO PHARMACOLOGY. Acta Poloniae Pharmaceutica, 2021, 78, 467-474.	0.3	0
139	Contrastometric fiber optic elongation sensor. European Physical Journal Special Topics, 2005, 129, 165-167.	0.2	0
140	Sagnac-Michelson Interferometer as Perimeter Sensor. , 2006, , .		0
141	Performance of a nitrogen implanted large aperture THz emitter. Photonics Letters of Poland, 2012, 4, .	0.2	0
142	The methodology of THz-VIS fused images evaluation. Photonics Letters of Poland, 2013, 5, .	0.2	0
143	Computer Processing of Images Captured with a Commercially Available THz Camera at Long Distances. NATO Science for Peace and Security Series B: Physics and Biophysics, 2014, , 167-174.	0.2	0
144	Simple thermal to thermal face verification method based on local texture descriptors. , 2017, , .		0

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145	Weryfikacja osób na podstawie wizerunku twarzy i odcisku palca - badania eksperymentalne. Przegląd Elektrotechniczny, 2017, 1, 154-159.	0.1	0
146	Demonstrator biometrycznego systemu wjazdu/wyjazdu do strefy Schengen - badania eksperymentalne. Przegląd Elektrotechniczny, 2018, 1, 111-116.	0.1	0
147	Mobile border verification of travellers based on fingerprints: experimental studies. , 2018, , .		0
148	Face re-identification across pose in thermal infrared spectrum based on local texture descriptors. , 2018, , .		0
149	AlGaAs/GaAs terahertz quantum cascade lasers with copper waveguides (Conference Presentation). , 2019, , .		0
150	Objects tracking in virtual reality applications using SteamVR tracking system: selected issues. , 2019, , .		0
151	Microwave sensors for detection of floating objects on rivers. , 2020, , .		0
152	Terahertz detection of fingerprint spoofing. , 2020, , .		0