## Gijs van Soest

List of Publications by Year in descending order

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CUS VAN SOFST

#	Article	IF	CITATIONS
1	Spectroscopic thermo-elastic optical coherence tomography for tissue characterization. Biomedical Optics Express, 2022, 13, 1430.	2.9	5
2	Nanosecond SRS fiber amplifier for label-free near-infrared photoacoustic microscopy of lipids. Photoacoustics, 2022, 25, 100331.	7.8	10
3	Label-free analytic histology of carotid atherosclerosis by mid-infrared optoacoustic microscopy. Photoacoustics, 2022, 26, 100354.	7.8	5
4	Lipid signature of advanced human carotid atherosclerosis assessed by mass spectrometry imaging. Journal of Lipid Research, 2021, 62, 100020.	4.2	27
5	The Prognostic Value of a Validated and Automated Intravascular Ultrasound-Derived Calcium Score. Journal of Cardiovascular Translational Research, 2021, 14, 992-1000.	2.4	6
6	The relation between pre-existing plaque burden and strut coverage after DES implantation in familial hypercholesterolemia swine: an OCT study. , 2021, , .		0
7	Capturing the breath of an artificial lung model using endoscopic optical coherence elastography. , 2021, , .		0
8	Differential phase analysis for high frame rate photoacoustic vector flow imaging. , 2021, , .		0
9	Photoacoustic identification of lipid patterns in advanced atherosclerotic plaques. , 2021, , .		0
10	Real-Time Coded Excitation Imaging Using a CMUT-Based Side Looking Array for Intravascular Ultrasound. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 2048-2058.	3.0	10
11	Micro Spectroscopic Photoacoustic (μsPA) imaging of advanced carotid atherosclerosis. Photoacoustics, 2021, 22, 100261.	7.8	9
12	Photoacoustic flow velocity imaging based on complex field decorrelation. Photoacoustics, 2021, 22, 100256.	7.8	6
13	Fibre optic intravascular measurements of blood flow: A review. Sensors and Actuators A: Physical, 2021, 332, 113162.	4.1	2
14	Spectroscopic analysis through thermoelastic optical coherence microscopy. , 2021, , .		0
15	Biomechanical Stress Profiling of Coronary Atherosclerosis. JACC: Cardiovascular Imaging, 2020, 13, 804-816.	5.3	32
16	Intravascular Polarimetry in Patients With Coronary Artery Disease. JACC: Cardiovascular Imaging, 2020, 13, 790-801.	5.3	35
17	The Effect of Stent Artefact on Quantification of Plaque Features Using Optical Coherence Tomography (OCT): A Feasibility and Clinical Utility Study. Heart Lung and Circulation, 2020, 29, 874-882.	0.4	4
18	Simultaneous Morphological and Flow Imaging Enabled by Megahertz Intravascular Doppler Optical Coherence Tomography. IEEE Transactions on Medical Imaging, 2020, 39, 1535-1544.	8.9	9

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19	Vulnerable plaques and patients: state-of-the-art. European Heart Journal, 2020, 41, 2997-3004.	2.2	98
20	Automated Quantitative Assessment of Coronary Calcification Using Intravascular Ultrasound. Ultrasound in Medicine and Biology, 2020, 46, 2801-2809.	1.5	12
21	In-vitro and in-vivo imaging of coronary artery stents with Heartbeat OCT. International Journal of Cardiovascular Imaging, 2020, 36, 1021-1029.	1.5	5
22	Parametric imaging of attenuation by optical coherence tomography: review of models, methods, and clinical translation. Journal of Biomedical Optics, 2020, 25, 1.	2.6	51
23	Thermo-elastic optical coherence microscopy. , 2020, , .		0
24	Echoes from Picasso: Explanation of an unusual artefact in optical coherence tomography. Cardiology Journal, 2020, 27, 83-84.	1.2	0
25	Design of a Dual Frequency Probe for Photoacoustic Imaging of the Carotid Artery. , 2020, , .		0
26	Shadow-free motorized capsule enables accurate beam positioning and sectorized OCT imaging of the esophagus. , 2020, , .		1
27	Polarimetric Signatures of Vascular Tissue Response to Drug-Eluting Stent Implantation in Patients. JACC: Cardiovascular Imaging, 2020, 13, 2695-2696.	5.3	5
28	Abstract 13819: Is an Adult Familial Hypercholesterolemia, Swine Model Suited to Test Safety and Efficacy of Drug-eluting Coronary Stents?. Circulation, 2020, 142, .	1.6	0
29	Data Processing Pipeline for Lipid Profiling of Carotid Atherosclerotic Plaque with Mass Spectrometry Imaging. Journal of the American Society for Mass Spectrometry, 2019, 30, 1790-1800.	2.8	22
30	Photoacoustic imaging for guidance of interventions in cardiovascular medicine. Physics in Medicine and Biology, 2019, 64, 16TR01.	3.0	17
31	Spontaneous Coronary Artery Dissection. JACC: Cardiovascular Imaging, 2019, 12, 2475-2488.	5.3	88
32	Real-time photoacoustic assessment of radiofrequency ablation lesion formation in the left atrium. Photoacoustics, 2019, 16, 100150.	7.8	29
33	Interventional photoacoustics: using light to sound out the path to safe, effective interventions. Physics in Medicine and Biology, 2019, 64, 220401.	3.0	0
34	Photoacoustic imaging of RF ablation lesion formation in an ex-vivo passive beating porcine heart model (Conference Presentation). , 2019, , .		1
35	Motorized capsule for shadow-free OCT imaging and synchronous beam control. Optics Letters, 2019, 44, 3641.	3.3	12
36	In vivo intravascular photoacoustic imaging of plaque lipid in coronary atherosclerosis. EuroIntervention, 2019, 15, 452-456.	3.2	14

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37	Healthy Vessel Wall Detection Using U-Net in Optical Coherence Tomography. Lecture Notes in Computer Science, 2019, , 184-192.	1.3	1
38	Megahertz intravascular Doppler optical coherence tomography enables simultaneous morphological and flow pattern imaging. , 2019, , .		0
39	Thermo-elastic optical coherence tomography. , 2019, , .		0
40	Heartbeat optical coherence tomography enables accurate in vivo stents imaging: a quantitative image processing study (Conference Presentation). , 2019, , .		0
41	Sparse Ultrasound Image Reconstruction From a Shape-Sensing Single-Element Forward-Looking Catheter. IEEE Transactions on Biomedical Engineering, 2018, 65, 2210-2218.	4.2	16
42	Coronary Plaque Microstructure and Composition Modify Optical Polarization. JACC: Cardiovascular Imaging, 2018, 11, 1666-1676.	5.3	54
43	Repeatability Assessment of Intravascular Polarimetry in Patients. IEEE Transactions on Medical Imaging, 2018, 37, 1618-1625.	8.9	18
44	Quantitative imaging performance of frequency-tunable capacitive micromachined ultrasonic transducer array designed for intracardiac application: Phantom study. Ultrasonics, 2018, 84, 421-429.	3.9	9
45	Volumetric ultrasound image reconstruction from a single-element forward-looking intracardiac steerable catheter using 3D adaptive normalized convolution. , 2018, , .		4
46	A Kerfless PVDF Array for Photoacoustic Imaging. , 2018, , .		2
47	Photoacoustic-Enabled RF Ablation Catheters for Lesion Monitoring. , 2018, , .		2
48	A 2-D Ultrasound Transducer With Front-End ASIC and Low Cable Count for 3-D Forward-Looking Intravascular Imaging: Performance and Characterization. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 1832-1844.	3.0	31
49	A Front-End ASIC With High-Voltage Transmit Switching and Receive Digitization for 3-D Forward-Looking Intravascular Ultrasound Imaging. IEEE Journal of Solid-State Circuits, 2018, 53, 2284-2297.	5.4	49
50	Structured ultrasound microscopy. Applied Physics Letters, 2018, 112, .	3.3	17
51	Spectroscopic photoacoustic imaging of radiofrequency ablation in the left atrium. Biomedical Optics Express, 2018, 9, 1309.	2.9	25
52	Catheter design optimization for practical intravascular photoacoustic imaging (IVPA) of vulnerable plaques. , 2018, , .		2
53	Qualitative and quantitative evaluation of dynamic changes in non-culprit coronary atherosclerotic lesion morphology: a longitudinal OCT study. EuroIntervention, 2018, 13, 2190-2200.	3.2	7
54	Safety of optical coherence tomography in daily practice: a comparison with intravascular ultrasound. European Heart Journal Cardiovascular Imaging, 2017, 18, jew037.	1.2	47

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55	Hybrid intravascular imaging: recent advances, technical considerations, and current applications in the study of plaque pathophysiology. European Heart Journal, 2017, 38, 400-412.	2.2	152
56	A new technique for lipid core plaque detection by optical coherence tomography for prevention of peri-procedural myocardial infarction. Medicine (United States), 2017, 96, e7125.	1.0	1
57	Short pulse laser induced thermo-elastic deformation imaging. Proceedings of SPIE, 2017, , .	0.8	0
58	A front-end ASIC with high-voltage transmit switching and receive digitization for forward-looking intravascular ultrasound. , 2017, , .		8
59	Laser-driven resonance of dye-doped oil-coated microbubbles: Experimental study. Journal of the Acoustical Society of America, 2017, 141, 4832-4846.	1.1	6
60	Laser-driven resonance of dye-doped oil-coated microbubbles: A theoretical and numerical study. Journal of the Acoustical Society of America, 2017, 141, 2727-2745.	1.1	7
61	Intravascular imaging for characterization of coronary atherosclerosis. Current Opinion in Biomedical Engineering, 2017, 3, 1-12.	3.4	25
62	Contour segmentation of the intima, media, and adventitia layers in intracoronary OCT images: application to fully automatic detection of healthy wall regions. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 1923-1936.	2.8	21
63	Notice of Removal: Forward-looking IVUS transducer with front-end ASIC for 3D imaging. , 2017, , .		0
64	Preclinical Testing of Frequency-Tunable Capacitive Micromachined Ultrasonic Transducer Probe Prototypes. Ultrasound in Medicine and Biology, 2017, 43, 2079-2085.	1.5	11
65	Optical coherence tomography attenuation imaging for lipid core detection: an ex-vivo validation study. International Journal of Cardiovascular Imaging, 2017, 33, 5-11.	1.5	22
66	Frequency Tuning of Collapse-Mode Capacitive Micromachined Ultrasonic Transducer. Ultrasonics, 2017, 74, 144-152.	3.9	22
67	Notice of Removal: Near-infrared photoacoustic imaging of atrial RF ablation. , 2017, , .		0
68	Real-time volumetric lipid imaging in vivo by intravascular photoacoustics at 20 frames per second. Biomedical Optics Express, 2017, 8, 943.	2.9	80
69	Thermo-elastic optical coherence tomography. Optics Letters, 2017, 42, 3466.	3.3	16
70	Photoacoustic imaging of sub-diffraction objects with spectral contrast. Optics Letters, 2017, 42, 191.	3.3	2
71	Neoatherosclerosis development following bioresorbable vascular scaffold implantation in diabetic and non-diabetic swine. PLoS ONE, 2017, 12, e0183419.	2.5	5
72	3D Imaging with a single-element forward-looking steerable IVUS catheter: initial testing. , 2016, , .		8

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73	Mutual radiation impedance of circular CMUTs on a cylinder. , 2016, , .		1
74	OCT-measured plaque free wall angle is indicative for plaque burden: overcoming the main limitation of OCT?. International Journal of Cardiovascular Imaging, 2016, 32, 1477-1481.	1.5	11
75	Frequency-agility of collapse-mode 1-D CMUT array. , 2016, , .		1
76	Autofluorescence: A New NIR onÂtheÂBlock. JACC: Cardiovascular Imaging, 2016, 9, 1315-1317.	5.3	3
77	Improving the Performance of a 1-D Ultrasound Transducer Array by Subdicing. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 1161-1171.	3.0	7
78	Heartbeat OCT and Motion-Free 3D InÂVivo Coronary Artery Microscopy. JACC: Cardiovascular Imaging, 2016, 9, 622-623.	5.3	19
79	Frequency Analysis of the Photoacoustic Signal Generated by Coronary Atherosclerotic Plaque. Ultrasound in Medicine and Biology, 2016, 42, 2017-2025.	1.5	24
80	A Broadband Polyvinylidene Difluoride-Based Hydrophone with Integrated Readout Circuit for Intravascular Photoacoustic Imaging. Ultrasound in Medicine and Biology, 2016, 42, 1239-1243.	1.5	17
81	Heartbeat OCT: superfast imaging and elasticity detection. , 2016, , .		1
82	Emerging Technology Update Intravascular Photoacoustic Imaging of Vulnerable Atherosclerotic Plaque. Interventional Cardiology Review, 2016, 11, 120.	1.6	20
83	Automated characterisation of lipid core plaques in vivo by quantitative optical coherence tomography tissue type imaging. EuroIntervention, 2016, 12, 1490-1497.	3.2	11
84	Heartbeat OCT: in vivo intravascular megahertz-optical coherence tomography. Biomedical Optics Express, 2015, 6, 5021.	2.9	80
85	A Micromotor Catheter for Intravascular Optical Coherence Tomography. Engineering, 2015, 1, 015-017.	6.7	10
86	Differential phase photoacoustic imaging for high-resolution position sensing. , 2015, , .		0
87	Quantifying the effect of subdicing on element vibration in ultrasound transducers. , 2015, , .		2
88	Measuring submicrometer displacement vectors using high-frame-rate ultrasound imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2015, 62, 1733-1744.	3.0	6
89	A single-cable PVDF transducer readout IC for intravascular photoacoustic imaging. , 2015, ,		2
90	Quantification of fibrous cap thickness in intracoronary optical coherence tomography with a contour segmentation method based on dynamic programming. International Journal of Computer Assisted Radiology and Surgery, 2015, 10, 1383-1394.	2.8	25

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91	Specific imaging of atherosclerotic plaque lipids with two-wavelength intravascular photoacoustics. Biomedical Optics Express, 2015, 6, 3276.	2.9	58
92	Photonics in cardiovascular medicine. Nature Photonics, 2015, 9, 626-629.	31.4	19
93	Development of Tissue Characterization Using Optical Coherence Tomography for Defining Coronary Plaque Morphology and the Vascular Responses After Coronary Stent Implantation. Current Cardiovascular Imaging Reports, 2014, 7, 1.	0.6	2
94	Photoacoustic imaging of carotid artery atherosclerosis. Journal of Biomedical Optics, 2014, 19, 110504.	2.6	61
95	Impact of device geometry on the imaging characteristics of an intravascular photoacoustic catheter. Applied Optics, 2014, 53, 8131.	2.1	15
96	Effect of temperature and fixation on the optical properties of atherosclerotic tissue: a validation study of an ex-vivo whole heart cadaveric model. Biomedical Optics Express, 2014, 5, 1038.	2.9	19
97	High frame rate ultrasound displacement vector imaging. , 2014, , .		3
98	OCT Assessment of the Long-Term Vascular Healing Response 5 Years AfterÂEverolimus-Eluting BioresorbableÂVascular Scaffold. Journal of the American College of Cardiology, 2014, 64, 2343-2356.	2.8	101
99	Spectroscopic intravascular photoacoustic imaging of lipids in atherosclerosis. Journal of Biomedical Optics, 2014, 19, 026006.	2.6	63
100	Intravascular Photoacoustic Imaging: A New Tool for Vulnerable Plaque Identification. Ultrasound in Medicine and Biology, 2014, 40, 1037-1048.	1.5	104
101	High-Definition Imaging of Carotid Artery Wall Dynamics. Ultrasound in Medicine and Biology, 2014, 40, 2392-2403.	1.5	90
102	Development of a high-speed synchronous micro motor and its application in intravascular imaging. Sensors and Actuators A: Physical, 2014, 218, 60-68.	4.1	43
103	Imaging Microvasculature with Contrast-Enhanced Ultraharmonic Ultrasound. Ultrasound in Medicine and Biology, 2014, 40, 1318-1328.	1.5	27
104	Photoacoustic imaging of human coronary atherosclerosis in two spectral bands. Photoacoustics, 2014, 2, 12-20.	7.8	120
105	Semi-automated Quantification of Fibrous Cap Thickness in Intracoronary Optical Coherence Tomography. Lecture Notes in Computer Science, 2014, , 78-89.	1.3	6
106	Quantitative Optical Coherence Tomography Tissue-Type Imaging for Lipid-Core Plaque Detection. JACC: Cardiovascular Interventions, 2013, 6, 891-892.	2.9	13
107	Interstudy reproducibility of the second generation, Fourier domain optical coherence tomography in patients with coronary artery disease and comparison with intravascular ultrasound: a study applying automated contour detection. International Journal of Cardiovascular Imaging, 2013, 29, 39-51.	1.5	24
108	Contrast-Enhanced Intravascular Ultrasound Pulse Sequences for Bandwidth-Limited Transducers. Ultrasound in Medicine and Biology, 2013, 39, 706-713.	1.5	36

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109	Association of neointimal morphology by optical coherence tomography with rupture of neoatherosclerotic plaque very late after coronary stent implantation Proceedings of SPIE, 2013, , .	0.8	4
110	In-stent neoatherosclerosis: are first generation drug eluting stents different than bare metal stents? An optical coherence tomography study. , 2013, , .		0
111	Ultrahigh-speed intravascular optical coherence tomography imaging at 3200 frames per second. Proceedings of SPIE, 2013, , .	0.8	1
112	Intravascular optical coherence tomography imaging at 3200 frames per second. Optics Letters, 2013, 38, 1715.	3.3	103
113	Lipid detection in atherosclerotic human coronaries by spectroscopic intravascular photoacoustic imaging. Optics Express, 2013, 21, 21472.	3.4	60
114	Ultrasound-guided photoacoustic image reconstruction: image completion and boundary suppression. Journal of Biomedical Optics, 2013, 18, 096017.	2.6	6
115	Correction of astigmatism in endoscopic OCT for esophageal and coronary imaging. Proceedings of SPIE, 2012, , .	0.8	1
116	Numerical analysis of astigmatism correction in gradient refractive index lens based optical coherence tomography catheters. Applied Optics, 2012, 51, 5244.	1.8	8
117	High frame rate ultrasound imaging of human carotid artery dynamics. , 2012, , .		5
118	Automatic lipid detection in human coronary atherosclerosis using spectroscopic intravascular photoacoustic imaging. , 2012, , .		0
119	Two contrast detection sequences for bandwidth-limited intravascular ultrasound transducers. , 2012, , .		0
120	Plane wave ultrasound imaging with a broadband photoacoustic source. , 2012, , .		3
121	Wavelength multiplexing for FD-OCT speckle averaging. Proceedings of SPIE, 2012, , .	0.8	0
122	Plane-wave ultrasound beamforming using a nonuniform fast fourier transform. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2012, 59, 2684-91.	3.0	58
123	Consensus Standards for Acquisition, Measurement, and Reporting of Intravascular Optical Coherence Tomography Studies. Journal of the American College of Cardiology, 2012, 59, 1058-1072.	2.8	1,530
124	Frequency domain multiplexing for speckle reduction in optical coherence tomography. Journal of Biomedical Optics, 2012, 17, 0760181.	2.6	14
125	Optical Coherence Tomography: Potential Clinical Applications. Current Cardiovascular Imaging Reports, 2012, 5, 206-220.	0.6	36

126 Photoacoustic imaging of coronary arteries. , 2012, , 166-174.

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127	Photoacoustic imaging of coronary arteries: Current status and potential clinical applications. , 2012, , 166-174.		Ο
128	Pitfalls in Plaque Characterization by OCT. JACC: Cardiovascular Imaging, 2011, 4, 810-813.	5.3	103
129	Intravascular photoacoustic imaging of human coronary atherosclerosis. Optics Letters, 2011, 36, 597.	3.3	241
130	Intravascular photoacoustic imaging of human coronary atherosclerosis. , 2011, , .		9
131	The diagnostic value of intracoronary optical coherence tomography. Herz, 2011, 36, 417-429.	1.1	48
132	Intravascular ultrasound chirp imaging. , 2011, , .		0
133	Combined optical coherence tomography and intravascular ultrasound radio frequency data analysis for plaque characterization. Classification accuracy of human coronary plaques in vitro. International Journal of Cardiovascular Imaging, 2010, 26, 843-850.	1.5	29
134	Contrast-enhanced intravascular ultrasound 3D reconstruction of a vasa vasorum mimicking model. , 2010, , .		2
135	Atherosclerotic tissue characterization in vivo by optical coherence tomography attenuation imaging. Journal of Biomedical Optics, 2010, 15, 011105.	2.6	217
136	TomografÃa de coherencia óptica de segunda generación en la práctica clÃnica. La adquisición de datos de alta velocidad muestra una reproducibilidad excelente en pacientes tratados con intervenciones coronarias percutáneas. Revista Espanola De Cardiologia, 2010, 63, 893-903.	1.2	52
137	An intravascular photoacoustic imaging catheter. , 2010, , .		5
138	First use in patients of a combined near infra-red spectroscopy and intra-vascular ultrasound catheter to identify composition and structure of coronary plaque. EuroIntervention, 2010, 5, 755-756.	3.2	52
139	Reproducibility of coronary Fourier domain optical coherence tomography: quantitative analysis of in vivo stented coronary arteries using three different software packages. EuroIntervention, 2010, 6, 371-379.	3.2	57
140	Optical Tracking of Superficial Dynamics from an Acoustic Radiation Force-Induced Excitation. Ultrasonic Imaging, 2009, 31, 17-30.	2.6	2
141	Intracoronary optical coherence tomography and the evaluation of stents. Expert Review of Medical Devices, 2009, 6, 157-167.	2.8	14
142	Imaging atherosclerotic plaque composition with intracoronary optical coherence tomography. Netherlands Heart Journal, 2009, 17, 448-450.	0.8	16
143	Optical coherence tomography patterns of stent restenosis. American Heart Journal, 2009, 158, 284-293.	2.7	309
144	Algorithm optimization for quantitative analysis of intravascular optical coherence tomography		3

data., 2009, , .

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145	Optical tracking of superficial dynamics from an acoustic radiation force-induced excitation. Ultrasonic Imaging, 2009, 31, 17-30.	2.6	2
146	Azimuthal Registration of Image Sequences Affected by Nonuniform Rotation Distortion. IEEE Transactions on Information Technology in Biomedicine, 2008, 12, 348-355.	3.2	48
147	Diagnosis of Vertical Root Fractures with Optical Coherence Tomography. Journal of Endodontics, 2008, 34, 739-742.	3.1	111
148	Robust intravascular optical coherence elastography by line correlations. Physics in Medicine and Biology, 2007, 52, 2445-2458.	3.0	52
149	Robust intravascular optical coherence elastography driven by acoustic radiation pressure. , 2007, , .		3
150	The Ability of Optical Coherence Tomography to Characterize the Root Canal Walls. Journal of Endodontics, 2007, 33, 1369-1373.	3.1	60
151	SCIAMACHY Level 1 data: calibration concept and in-flight calibration. Atmospheric Chemistry and Physics, 2006, 6, 5347-5367.	4.9	57
152	βfactor in a random laser. Physical Review E, 2002, 65, 047601.	2.1	55
153	Speckle experiments in random lasers. Physical Review E, 2002, 65, 046603.	2.1	15
154	Dynamics of a Random Laser above Threshold. Physical Review Letters, 2001, 86, 1522-1525.	7.8	77
155	Enhanced backscattering from photonic crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 268, 104-111.	2.1	74
156	Amplification and diffusion of spontaneous emission in strongly scattering medium. Journal of Applied Physics, 2000, 87, 7623-7628.	2.5	34
157	Amplifying volume in scattering media. Optics Letters, 1999, 24, 306.	3.3	95