

# A8770E - Patient diagnostic methods and instrumentation

view online

Report generated from year 2013 to 2020

#### Articles published

161813 articles published with this Subject classification between 2013 - 2020

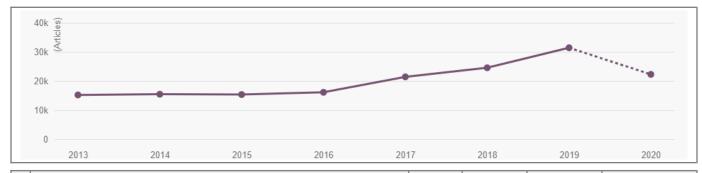
#### Articles published % change

Between 2013 - 2019 article output increased 106.55%

#### Times cited

Articles published with this Subject classification between 2013 - 2020 have been cited 264464 times, with an average of 1.63 citations per article

## Subject classification over time



#	Year	Articles	% Change	₩	₩
				Times cited	Avg times cited
1	2013	15217	n/a	54001	3.55
2	2014	15456	1.57%	53645	3.47
3	2015	15339	-0.76%	45092	2.94
4	2016	16114	5.05%	39537	2.45
5	2017	21431	33.00%	37912	1.77
6	2018	24551	14.56%	22867	0.93
7	2019	31430	28.02%	9156	0.29
8	2020	22275	n/a	2254	0.10



## **Co-occurring concepts**

#	Controlled terms	Articles
1	medical image processing	85226
2	diseases	34834
3	biomedical optical imaging	33390
4	biomedical MRI	30643
5	cancer	28658
6	image segmentation	23318
7	cellular biophysics	22858
8	computerised tomography	21283
9	tumours	20063
10	brain	18566
11	feature extraction	17230
12	biological tissues	16826
13	learning (artificial intelligence)	16485
14	image reconstruction	16262
15	image classification	15788
16	patient diagnosis	15579
17	biomedical ultrasonics	15448
18	molecular biophysics	14701
19	neurophysiology	14333
20	blood vessels	12957

Total terms: 5865



#	Subject classifications	Articles
1	A8770 - Biomedical engineering	161813
2	A8700 - Biophysics, medical physics, and biomedical engineering	161813
3	A8000 - Cross-disciplinary physics and related areas of science and technology	161813
4	B7000 - Instrumentation and special applications	151361
5	B7500 - Medical physics and biomedical engineering	150399
6	B7510 - Biomedical measurement and imaging	146131
7	A8760 - Medical and biomedical uses of fields, radiations, and radioactivity; health physics	129102
8	C7000 - Computer applications	104151
9	C7300 - Natural sciences computing	104020
10	C7330 - Biology and medical computing	104008
11	B6000 - Communications	97824
12	C5000 - Computer hardware	96403
13	C5200 - Logic design and digital techniques	96047
14	B6100 - Information and communication theory	95865
15	C5260 - Digital signal processing	95544
16	B6135 - Optical, image and video signal processing	88756
17	C5260B - Computer vision and image processing techniques	88362
18	A8760F - Optical and laser radiation (medical uses)	45301
19	B7510J - Optical and laser radiation (biomedical imaging/measurement)	42600
20	A0000 - General	42563

Total codes : 2179

## Top organisations

#	Organisations	Articles
1	Johns Hopkins University Baltimore, USA academic	1736
2	Shanghai Jiao Tong University Shanghai, China academic	1570
3	Stanford University Stanford, USA academic	1554
4	Harvard University Cambridge, USA academic	1425
5	University College London London, UK academic	1372
6	Tsinghua University Beijing, China academic	1321
7	Imperial College London London, UK academic	1231
8	Duke University Durham, USA academic	1091
9	University of Michigan Ann Arbor, USA academic	1084
10	University of Toronto Toronto, Canada academic	1074



#	Organisations	Articles
11	University of Pennsylvania Philadelphia, USA academic	1051
12	University of California Los Angeles Los Angeles, USA academic	956
13	Zhejiang University Hangzhou, China academic	942
14	King's College London London, UK academic	935
15	Technische Universitat Munchen Munchen, Germany academic	910
16	Hermann von Helmholtz-Gemeinschaft Deutscher Forschungszentren Bonn, Germany academic	863
17	Washington University in Saint Louis Saint Louis, USA academic	834
18	University of Washington Seattle, USA academic	828
19	Nanyang Technological University Singapore, Singapore academic	802
20	Fudan University Shanghai, China academic	801

Total organisations: 10266

## **Journals**

#	Journal	Articles
1	Proceedings of SPIE - Progress in Biomedical Optics and Imaging	10782
2	Proceedings of SPIE	5404
3	arXiv	4141
4	Magnetic Resonance in Medicine	2897
5	Physics in Medicine & Diology	2835
6	Journal of Biomedical Optics	2075
7	Biosensors and Bioelectronics	1776
8	Journal of Physics: Conference Series	1765
9	IEEE Transactions on Medical Imaging	1760
10	Medical Physics	1618
11	IEEE Access	1526
12	Medical Physics	1220
13	Sensors	1149
14	Sensors and Actuators B: Chemical	1137
15	IEEE Transactions on Biomedical Engineering	1122
16	Journal of Biomechanics	1029
17	AIP Conference Proceedings	1006
18	Journal of Materials Chemistry B	1002
19	Journal of Biophotonics	935
20	Biomaterials	911



Total journals : 2594

### Conferences

#	Conference	Articles
1	2017 IEEE International Ultrasonics Symposium (IUS)	867
2	2019 41st Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)	653
3	2020 42nd Annual International Conference of the IEEE Engineering in Medicine & Diology Society (EMBC)	594
4	2015 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC). Proceedings	570
5	2014 36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)	551
6	2013 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)	549
7	2018 40th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)	528
8	2016 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)	496
9	2017 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)	415
10	2019 IEEE International Ultrasonics Symposium (IUS). Proceedings	388
11	2013 IEEE Nuclear Science Symposium and Medical Imaging Conference (2013 NSS/MIC)	377
12	2020 IEEE International Ultrasonics Symposium (IUS)	352
13	2020 IEEE 17th International Symposium on Biomedical Imaging (ISBI)	347
14	2019 IEEE 16th International Symposium on Biomedical Imaging (ISBI 2019)	332
15	2014 IEEE 11th International Symposium on Biomedical Imaging (ISBI 2014)	303
16	2018 IEEE International Ultrasonics Symposium (IUS)	300
17	2013 IEEE 10th International Symposium on Biomedical Imaging: From Nano to Macro (ISBI 2013)	297
18	2015 IEEE 12th International Symposium on Biomedical Imaging (ISBI)	292
19	2016 IEEE 13th International Symposium on Biomedical Imaging (ISBI). Proceedings	291
20	2018 IEEE 15th International Symposium on Biomedical Imaging (ISBI 2018)	272

Total conferences: 7690

## Related controlled terms

#	Controlled terms	Articles
1	medical image processing	85226
2	biomedical optical imaging	33390
3	biomedical MRI	30643
4	computerised tomography	21283
5	patient diagnosis	15579
6	biomedical ultrasonics	15448
7	diagnostic radiography	7217
8	optical tomography	5958
9	laser applications in medicine	5106
10	positron emission tomography	4906
11	mammography	4493
12	biomedical transducers	3420
13	photoplethysmography	2388



#	Controlled terms	Articles
14	biomedical imaging	1763
15	single photon emission computed tomography	1389
16	microwave imaging	1231
17	echocardiography	1181
18	radioisotope imaging	904
19	angiocardiography	585
20	magnetoencephalography	504

Total terms : 28

## **Related Subject classifications**

#	Parent
1	A8770 - Biomedical engineering

Total codes : 1

#	Siblings	Articles
1	A8770M - Biomedical materials	0
2	A8770F - Electrodiagnostics and other electrical measurement techniques	0
3	A8770G - Patient care and treatment	0
4	A8770J - Prosthetics and other practical applications	0
5	A8770H - Radiation therapy	0

Total codes : 5

#	Children	Articles	
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Total codes : 0