Daniel Jirak

List of Publications by Year
in descending order

86 papers	2,086 citations	257450 24 h-index	254184 43 g-index
89 all docs	89 docs citations	89 times ranked	2916 citing authors

#	Article	IF	Citations
1	Iron-doped calcium phytate nanoparticles as a bio-responsive contrast agent in 1H/31P magnetic resonance imaging. Scientific Reports, 2022, 12, 2118.	3.3	3
2	Phosphorusâ€Containing Polymeric Zwitterion: A Pioneering Bioresponsive Probe for ³¹Pâ€Magnetic Resonance Imaging. Macromolecular Bioscience, 2022, 22, e2100523.	4.1	5
3	Poly(4-Styrenesulfonic Acid-co-maleic Anhydride)-Coated NaGdF₄:Yb,Tb,Nd Nanoparticles with Luminescence and Magnetic Properties for Imaging of Pancreatic Islets and Î²-Cells. ACS Applied Materials & Interfaces, 2022, , .	8.0	3
4	Paramagnetic encoding of molecules. Nature Communications, 2022, 13, .	12.8	7
5	Antifouling fluoropolymer-coated nanomaterials for ¹⁹F MRI. Chemical Communications, 2021, 57, 4718-4721.	4.1	15
6	Bioluminescence Imaging In Vivo Confirms the Viability of Pancreatic Islets Transplanted into the Greater Omentum. Molecular Imaging and Biology, 2021, 23, 639-649.	2.6	4
7	Plectin ensures intestinal epithelial integrity and protects colon against colitis. Mucosal Immunology, 2021, 14, 691-702.	6.0	18
8	PEG-Neridronate-Modified NaYF₄:Gd³⁺,Yb³⁺,Tm³⁺/NaGdF₄ Coreâ€“Shell Upconverting Nanoparticles for Bimodal Magnetic Resonance/Optical Luminescence Imaging. ACS Omega, 2021, 6, 14420-14429.	3.5	7
9	Fluorine-Containing Block and Gradient Copoly(2-oxazoline)s Based on 2-(3,3,3-Trifluoropropyl)-2-oxazoline: A Quest for the Optimal Self-Assembled Structure for ¹⁹F Imaging. Biomacromolecules, 2021, 22, 2963-2975.	5.4	6
10	A broad tuneable birdcage coil for mouse 1H/19F MR applications. Journal of Magnetic Resonance, 2021, 329, 107023.	2.1	5
11	Mannan-Based Nanodiagnostic Agents for Targeting Sentinel Lymph Nodes and Tumors. Molecules, 2021, 26, 146.	3.8	4
12	The negative effect of magnetic nanoparticles with ascorbic acid on peritoneal macrophages. Neurochemical Research, 2020, 45, 159-170.	3.3	6
13	Highly colloidally stable trimodal 125I-radiolabeled PEG-neridronate-coated upconversion/magnetic bioimaging nanoprobes. Scientific Reports, 2020, 10, 20016.	3.3	12
14	Implant-forming polymeric 19F MRI-tracer with tunable dissolution. Journal of Controlled Release, 2020, 327, 50-60.	9.9	18
15	Fluorinated Water-Soluble Poly(2-oxazoline)s as Highly Sensitive ¹⁹F MRI Contrast Agents. Macromolecules, 2020, 53, 6387-6395.	4.8	20
16	In Vitro Studies of Fe₃O₄â€ŽIFâ€8 Coreâ€“Shell Nanoparticles Designed as Potential Theragnostics. Particle and Particle Systems Characterization, 2020, 37, 2000185.	2.3	9
17	Glycogen as an advantageous polymer carrier in cancer theranostics: Straightforward in vivo evidence. Scientific Reports, 2020, 10, 10411.	3.3	24
18	The Effect of Fatty Acids and BSA Purity on Synthesis and Properties of Fluorescent Gold Nanoclusters. Nanomaterials, 2020, 10, 343.	4.1	7

#	Article	IF	Citations
19	Multimodal PSSMAâ€Functionalized GdF 3 â€‰:â€‰Eu 3+ (Tb 3+) Nanoparticles for Luminescence Imaging, MRI, and Xâ€Ray Computed Tomography. ChemPlusChem, 2019, 84, 1135-1139.	2.8	6
20	Multiphase progenetic development shaped the brain of flying archosaurs. Scientific Reports, 2019, 9, 10807.	3.3	28
21	Metabolic Changes in Focal Brain Ischemia in Rats Treated With Human Induced Pluripotent Stem Cell-Derived Neural Precursors Confirm the Beneficial Effect of Transplanted Cells. Frontiers in Neurology, 2019, 10, 1074.	2.4	4
22	A novel model for in vivo quantification of immediate liver perfusion impairment after pancreatic islet transplantation. Islets, 2019, 11, 129-140.	1.8	4
23	A Trimodal Imaging Platform for Tracking Viable Transplanted Pancreatic Islets In Vivo: F-19 MR, Fluorescence, and Bioluminescence Imaging. Molecular Imaging and Biology, 2019, 21, 454-464.	2.6	26
24	Low-molecular-weight paramagnetic 19F contrast agents for fluorine magnetic resonance imaging. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2019, 32, 115-122.	2.0	9
25	Fluorine polymer probes for magnetic resonance imaging: quo vadis?. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2019, 32, 173-185.	2.0	48
26	Mannan-based conjugates as a multimodal imaging platform for lymph nodes. Journal of Materials Chemistry B, 2018, 6, 2584-2596.	5.8	12
27	Tungsten (VI) based â€œmolecular puzzleâ€•photoluminescent nanoparticles easily covered with biocompatible natural polysaccharides via direct chelation. Journal of Colloid and Interface Science, 2018, 512, 308-317.	9.4	4
28	Biological characterization of a novel hybrid copolymer carrier system based on glycogen. Drug Delivery and Translational Research, 2018, 8, 73-82.	5.8	3
29	The Contribution of TRPV4 Channels to Astrocyte Volume Regulation and Brain Edema Formation. Neuroscience, 2018, 394, 127-143.	2.3	23
30	Magnetoliposomes as Contrast Agents for Longitudinal in vivo Assessment of Transplanted Pancreatic Islets in a Diabetic Rat Model. Scientific Reports, 2018, 8, 11487.	3.3	10
31	Self-Assembled Thermoresponsive Polymeric Nanogels for ¹⁹F MR Imaging. Biomacromolecules, 2018, 19, 3515-3524.	5.4	49
32	¹⁹F Magnetic Resonance Imaging of Injectable Polymeric Implants with Multiresponsive Behavior. Chemistry of Materials, 2018, 30, 4892-4896.	6.7	22
33	Biodistribution of upconversion/magnetic silica-coated NaGdF₄:Yb³⁺/Er³⁺nanoparticles in mouse models. RSC Advances, 2017, 7, 45997-46006.	3.6	21
34	Pre-Microporation Improves Outcome of Pancreatic Islet Labelling for Optical and 19F MR Imaging. Biological Procedures Online, 2017, 19, 6.	2.9	4
35	Multimodal Imaging Reveals Improvement of Blood Supply to an Artificial Cell Transplant Site Induced by Bioluminescent Mesenchymal Stem Cells. Molecular Imaging and Biology, 2017, 19, 15-23.	2.6	5
36	The Optimal Timing for Pancreatic Islet Transplantation into Subcutaneous Scaffolds Assessed by Multimodal Imaging. Contrast Media and Molecular Imaging, 2017, 2017, 1-13.	0.8	10

#	Article	IF	Citations
37	Volume of the crocodilian brain and endocast during ontogeny. PLoS ONE, 2017, 12, e0178491.	2.5	52
38	The effect of magnetic nanoparticles on neuronal differentiation of induced pluripotent stem cell-derived neural precursors. International Journal of Nanomedicine, 2016, Volume 11, 6267-6281.	6.7	16
39	Biological and biophysical characteristics of a new polymer platform for drug delivery systems. European Journal of Cancer, 2016, 61, S138.	2.8	0
40	Ln(<scp>iii</scp>)-complexes of a DOTA analogue with an ethylenediamine pendant arm as pH-responsive PARACEST contrast agents. Dalton Transactions, 2016, 45, 3486-3496.	3.3	13
41	Rat intra-hippocampal NMDA infusion induces cell-specific damage and changes in expression of NMDA and GABA A receptor subunits. Neuropharmacology, 2016, 105, 594-606.	4.1	11
42	The Human Vocal Fold Layers. Their Delineation Inside Vocal Fold as a Background to Create 3D Digital and Synthetic Glottal Model. Journal of Voice, 2016, 30, 529-537.	1.5	7
43	Magnetic Resonance Visualization of Pancreatic Islets Labeled by PARACEST Contrast Agents at 4.7 T. Journal of Molecular Imaging & Dynamics, 2016, 6, .	0.2	1
44	A combined MR and CT study for precise quantitative analysis of the avian brain. Scientific Reports, 2015, 5, 16002.	3.3	7
45	318 Glycogen-based hybrid copolymers as a biodegradable construction materials for drug delivery purposes. European Journal of Cancer, 2015, 51, S61.	2.8	1
46	A Novel Nanoprobe for Multimodal Imaging Is Effectively Incorporated into Human Melanoma Metastatic Cell Lines. International Journal of Molecular Sciences, 2015, 16, 21658-21680.	4.1	10
47	Fluorescent magnetic nanoparticles for cell labeling: Flux synthesis of manganite particles and novel functionalization of silica shell. Journal of Colloid and Interface Science, 2015, 447, 97-106.	9.4	21
48	Abstract 5195: A novel, multimodal theranostic nanoprobe is effectively incorporated into melanoma brain metastatic cells. , 2015, , .		0
49	In vivo visualization of cells labeled with superparamagnetic iron oxides by a sub-millisecond gradient echo sequence. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2014, 27, 329-337.	2.0	6
50	Effect of Mesenchymal Stem Cells on the Vascularization of the Artificial Site for Islet Transplantation in Rats. Transplantation Proceedings, 2014, 46, 1963-1966.	0.6	10
51	Selective In Vitro Anticancer Effect of Superparamagnetic Iron Oxide Nanoparticles Loaded in Hyaluronan Polymeric Micelles. Biomacromolecules, 2014, 15, 4012-4020.	5.4	48
52	Lanthanide(iii) complexes of aminoethyl-DO3A as PARACEST contrast agents based on decoordination of the weakly bound amino group. Dalton Transactions, 2013, 42, 15735.	3.3	20
53	Gadoliniumâ€•and Manganiteâ€Based Contrast Agents with Fluorescent Probes for Both Magnetic Resonance and Fluorescence Imaging of Pancreatic Islets: A Comparative Study. ChemMedChem, 2013, 8, 614-621.	3.2	25
54	Human Induced Pluripotent Stem Cells Improve Stroke Outcome and Reduce Secondary Degeneration in the Recipient Brain. Cell Transplantation, 2012, 21, 2587-2602.	2.5	76

#	Article	IF	Citations
55	In Vivo Transfer of Superparamagnetic Iron Contrast Agent Ferucarbotran in Transplanted Rat Pancreatic Islets. Transplantation, 2012, 94, 721.	1.0	0
56	Glycogen as a Biodegradable Construction Nanomaterial for in vivo Use. Macromolecular Bioscience, 2012, 12, 1731-1738.	4.1	25
57	Processing of superparamagnetic iron contrast agent ferucarbotran in transplanted pancreatic islets. Contrast Media and Molecular Imaging, 2012, 7, 485-493.	0.8	13
58	Detection of pancreatic islet allograft impairment in advance of functional failure using magnetic resonance imaging. Transplant International, 2012, 25, 250-260.	1.6	22
59	Dual imaging probes for magnetic resonance imaging and fluorescence microscopy based on perovskite manganite nanoparticles. Journal of Materials Chemistry, 2011, 21, 157-164.	6.7	35
60	Phosphonateâ€“Titanium Dioxide Assemblies: Platform for Multimodal Diagnosticâ€“Therapeutic Nanoprobes. Journal of Medicinal Chemistry, 2011, 54, 5185-5194.	6.4	42
61	Dynamic Contrast-Enhanced Magnetic Resonance Imaging as a Tool to Monitor the Blood Supply to an Artificial Cavity Used as a Site for Islet Transplantation in Rats. Transplantation Proceedings, 2011, 43, 3226-3230.	0.6	9
62	Improved detection of pancreatic islets in vivo using double contrast. Contrast Media and Molecular Imaging, 2011, 6, 308-313.	0.8	10
63	Positive contrast visualization of SPIO-labeled pancreatic islets using echo-dephased steady-state free precession. European Radiology, 2011, 21, 214-220.	4.5	15
64	Magnetic Resonance Imaging of Pancreatic Islets Transplanted Into the Liver in Humans. Transplantation, 2010, 90, 1602-1606.	1.0	106
65	Cyclodextrinâ€Based Bimodal Fluorescence/MRI Contrast Agents: An Efficient Approach to Cellular Imaging. Chemistry - A European Journal, 2010, 16, 10094-10102.	3.3	49
66	Vascularization of Artificial Beds for Pancreatic Islet Transplantation in a Rat Model. Transplantation Proceedings, 2010, 42, 2097-2101.	0.6	14
67	Effects of MRI acquisition parameter variations and protocol heterogeneity on the results of texture analysis and pattern discrimination: An applicationâ€oriented study. Medical Physics, 2009, 36, 1236-1243.	3.0	183
68	Monitoring the survival of islet transplants by MRI using a novel technique for their automated detection and quantification. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2009, 22, 257-265.	2.0	49
69	Effects of Magnetic Resonance Image Interpolation on the Results of Texture-Based Pattern Classification. Investigative Radiology, 2009, 44, 405-411.	6.2	59
70	Two distinct tumor phenotypes isolated from glioblastomas show different MRS characteristics. NMR in Biomedicine, 2008, 21, 830-838.	2.8	24
71	Magnetic Resonance Imaging of Pancreatic Islets Transplanted Into the Right Liver Lobes of Diabetic Mice. Transplantation Proceedings, 2008, 40, 444-448.	0.6	21
72	Labeling of Pancreatic Islets With Iron Oxide Nanoparticles for In Vivo Detection With Magnetic Resonance. Transplantation, 2008, 85, 155-159.	1.0	36

#	Article	IF	Citations
73	Lesion evolution after gamma knife irradiation observed by magnetic resonance imaging. International Journal of Radiation Biology, 2007, 83, 237-244.	1.8	14
74	Automatic Detection of Pancreatic Islets in Magnetic Resonance Rat Liver Images. , 2007, , .		1
75	Reply to 'In vivo imaging of islet transplantation'. Nature Medicine, 2007, 13, 773-773.	30.7	0
76	Magnetic Resonance Imaging of Pancreatic Islets in Tolerance and Rejection. Transplantation, 2005, 80, 1596-1603.	1.0	93
77	Magnetic Resonance Imaging of Intrahepatically Transplanted Islets Using Paramagnetic Beads. Transplantation Proceedings, 2005, 37, 3493-3495.	0.6	41
78	Phantoms for texture analysis of MR images. Long-term and multi-center study. Medical Physics, 2004, 31, 616-622.	3.0	45
79	Classification of calf muscle MR images by texture analysis. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2004, 16, 259-267.	2.0	20
80	Metabolite and diffusion changes in the rat brain after Leksell Gamma Knife irradiation. Magnetic Resonance in Medicine, 2004, 52, 397-402.	3.0	34
81	MRI of transplanted pancreatic islets. Magnetic Resonance in Medicine, 2004, 52, 1228-1233.	3.0	156
82	MRI â€˜textureâ€™ analysis of MR images of apples during ripening and storage. LWT - Food Science and Technology, 2003, 36, 719-727.	5.2	49
83	Texture analysis of human liver. Journal of Magnetic Resonance Imaging, 2002, 15, 68-74.	3.4	104
84	Leksell gamma knife lesioning of the rat hippocampus: the relationship between radiation dose and functional and structural damage. Journal of Neurosurgery, 2002, 97, 666-673.	1.6	31
85	VOLUME TENSOR ESTIMATION USING A VIRTUAL LINE GRID: STUDY OF A DEVELOPING PHEASANT BRAIN. Image Analysis and Stereology, 0, , .	0.9	0
86	VARIANCE OF THE ISOTROPIC UNIFORM SYSTEMATIC SAMPLING. Image Analysis and Stereology, 0, , .	0.9	0