# Devkumar Mustafi

List of Publications by Year
in descending order

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92
papers

2,264
citations

236925
25
h-index

243625
44
g-index

93
all docs

93
docs citations

93
times ranked

3085
citing authors

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Mitophagy defects arising from BNip3 loss promote mammary tumor progression to metastasis. EMBO Reports, 2015, 16, 1145-1163. | 4.5 | 232 |
| 2 | A new method for imaging perfusion and contrast extraction fraction: Input functions derived from reference tissues. Journal of Magnetic Resonance Imaging, 1998, 8, 1126-1134. | 3.4 | 140 |
| 3 | Benign Conditions That Mimic Prostate Carcinoma: MR Imaging Features with Histopathologic Correlation. Radiographics, 2016, 36, 162-175. | 3.3 | 131 |
| 4 | Intranasal Delivery of Mesenchymal Stem Cells Significantly Extends Survival of Irradiated Mice with Experimental Brain Tumors. Molecular Therapy, 2014, 22, 140-148. | 8.2 | 105 |
| 5 | Kinetic Analysis of Benign and Malignant Breast Lesions With Ultrafast Dynamic Contrast-Enhanced MRI: Comparison With Standard Kinetic Assessment. American Journal of Roentgenology, 2016, 207, 1159-1166. | 2.2 | 98 |
| 6 | Diagnosis of Prostate Cancer with Noninvasive Estimation of Prostate Tissue Composition by Using Hybrid Multidimensional MR Imaging: A Feasibility Study. Radiology, 2018, 287, 864-873. | 7.3 | 83 |
| 7 | Ultrafast Bilateral DCE-MRI of the Breast with Conventional Fourier Sampling. Academic Radiology, 2016, 23, 1137-1144. | 2.5 | 70 |
| 8 | ENDOR-determined solvation structure of vanadyl(2+) in frozen solutions. Inorganic Chemistry, 1988, 27, 3360-3368. | 4.0 | 60 |
| 9 | Quantitative Analysis of Dynamic Contrast Enhanced MRI for Assessment of Bowel Inflammation in Crohn's Disease. Academic Radiology, 2009, 16, 1223-1230. | 2.5 | 58 |
| 10 | The vanadyl (VO2+) chelate bis(acetylacetonato)oxovanadium(IV) potentiates tyrosine phosphorylation of the insulin receptor. Journal of Biological Inorganic Chemistry, 2005, 10, 874-886. | 2.6 | 51 |
| 11 | Molecular geometry of vanadyl-adenine nucleotide complexes determined by EPR, ENDOR, and molecular modeling. Journal of the American Chemical Society, 1992, 114, 6219-6226. | 13.7 | 49 |
| 12 | Catalytic and structural role of the metal ion in dUTP pyrophosphatase. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 5670-5675. | 7.1 | 46 |
| 13 | Comparison of T2-Weighted Imaging, DWI, and Dynamic Contrast-Enhanced MRI for Calculation of Prostate Cancer Index Lesion Volume: Correlation With Whole-Mount Pathology. American Journal of Roentgenology, 2019, 212, 351-356. | 2.2 | 46 |
| 14 | Spectroscopic imaging of the water resonance with short repetition time to study tumor response to hyperoxia. Magnetic Resonance in Medicine, 1997, 38, 27-32. | 3.0 | 44 |
| 15 | Quantitative analysis of vascular properties derived from ultrafast DCEâ€MRI to discriminate malignant and benign breast tumors. Magnetic Resonance in Medicine, 2019, 81, 2147-2160. | 3.0 | 44 |
| 16 | The Reninâ€"Angiotensin System Mediates EGF Receptorâ€"Vitamin D Receptor Cross-Talk in Colitis-Associated Colon Cancer. Clinical Cancer Research, 2014, 20, 5848-5859. | 7.0 | 40 |
| 17 | ADAM17 is a Tumor Promoter and Therapeutic Target in Western Dietâ€"associated Colon Cancer. Clinical Cancer Research, 2017, 23, 549-561. | 7.0 | 40 |
| 18 | High-Frequency Electron Paramagnetic Resonance Studies of VO2+ in Low-Temperature Glasses. Journal of Physical Chemistry A, 1999, 103, 11279-11286. | 2.5 | 36 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Rational Design, Synthesis, and Biological Evaluation of Progesterone-Modified MRI Contrast Agents. Chemistry and Biology, 2007, 14, 824-834. | 6.0 | 35 |
| 20 | Ultrafast Dynamic Contrast-Enhanced Breast MRI: Kinetic Curve Assessment Using Empirical Mathematical Model Validated with Histological Microvessel Density. Academic Radiology, 2019, 26, e141-e149. | 2.5 | 31 |
| 21 | Differentiating between T1 and T2* changes caused by gadopentetate dimeglumine in the kidney by using a double-echo dynamic MR imaging sequence. Journal of Magnetic Resonance Imaging, 1996, 6, 764-768. | 3.4 | 30 |
| 22 | Overexpression and Biosynthetic Deuterium Enrichment of TEM-1 Î²-Lactamase for Structural Characterization by Magnetic Resonance Methods. Protein Expression and Purification, 2000, 19, 235-245. | 1.3 | 30 |
| 23 | Revisiting quantitative multi-parametric MRI of benign prostatic hyperplasia and its differentiation from transition zone cancer. Abdominal Radiology, 2019, 44, 2233-2243. | 2.1 | 30 |
| 24 | Performance of T2 Maps in the Detection of Prostate Cancer. Academic Radiology, 2019, 26, 15-21. | 2.5 | 29 |
| 25 | Performance of Ultrafast DCE-MRI for Diagnosis of Prostate Cancer. Academic Radiology, 2018, 25, 349-358. | 2.5 | 28 |
| 26 | In vivo imaging of extraction fraction of low molecular weight mr contrast agents and perfusion rate in rodent tumors. Magnetic Resonance in Medicine, 1997, 38, 259-268. | 3.0 | 27 |
| 27 | New vanadium-based magnetic resonance imaging probes: clinical potential for early detection of cancer. Journal of Biological Inorganic Chemistry, 2009, 14, 1187-1197. | 2.6 | 24 |
| 28 | E.p.r. and spin echo study of bituminous coal radicals. Fuel, 1986, 65, 684-693. | 6.4 | 23 |
| 29 | Structure and conformation of spin-labeled amino acids in frozen solutions determined by electron nuclear double resonance. 1. Methyl N-(2,2,5,5-tetramethyl-1-oxypyrrolinyl-3-carbonyl)-L-alanate, a molecule with a single preferred conformation. Journal of the American Chemical Society, 1990, 112, 2558-2566. | 13.7 | 23 |
| 30 | B<sub>1</sub> and T<sub>1</sub> mapping of the breast with a reference tissue method. Magnetic Resonance in Medicine, 2016, 75, 1565-1573. | 3.0 | 23 |
| 31 | Value of breast MRI for patients with a biopsy showing atypical ductal hyperplasia (ADH). Journal of Magnetic Resonance Imaging, 2017, 46, 1738-1747. | 3.4 | 23 |
| 32 | Uptake of a superparamagnetic contrast agent imaged by MR with high spectral and spatial resolution. Magnetic Resonance in Medicine, 2000, 43, 633-639. | 3.0 | 22 |
| 33 | Differentiation of nonmetastatic and metastatic rodent prostate tumors with high spectral and spatial resolution MRI. Magnetic Resonance in Medicine, 2001, 45, 1046-1055. | 3.0 | 22 |
| 34 | Structure and Conformation of Bis(acetylacetonato)oxovanadium(IV) and Bis(maltolato)oxovanadium(IV) in Solution Determined by Electron Nuclear Double Resonance Spectroscopy. Inorganic Chemistry, 2005, 44, 5580-5590. | 4.0 | 22 |
| 35 | Structure and conformation of spin-labeled amino acids in frozen solutions determined by electron nuclear double resonance. 2. Methyl N-(2,2,5,5-tetramethyl-1-oxypyrrolinyl-3-carbonyl)-L-tryptophanate, a molecule with multiple conformations. Journal of the American Chemical Society, 1990, 112, 2566-2574. | 13.7 | 20 |
| 36 | Structure, Conformation, and Probable Mechanism of Hydrolysis of a Spin-Labeled Penicillin Revealed by Electron Nuclear Double Resonance Spectroscopy. Journal of the American Chemical Society, 1995, 117, 6739-6746. | 13.7 | 20 |

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| --- | --- | --- | --- |
| 37 | Use of a reference tissue and blood vessel to measure the arterial input function in DCEMRI. Magnetic Resonance in Medicine, 2010, 64, 1821-1826. | 3.0 | 19 |
| 38 | Arterial input functions (AIFs) measured directly from arteries with low and standard doses of contrast agent, and AIFs derived from reference tissues. Magnetic Resonance Imaging, 2016, 34, 197-203. | 1.8 | 18 |
| 39 | Characterization of calcium binding properties of lithostathine. Journal of Biological Inorganic Chemistry, 2003, 8, 341-347. | 2.6 | 17 |
| 40 | Cross-linked Heterogeneous Nanoparticles as Bifunctional Probe. Chemistry of Materials, 2012, 24, 2423-2425. | 6.7 | 17 |
| 41 | Conformational Changes in Spin-Labeled Cephalosporin and Penicillin upon Hydrolysis Revealed by Electron Nuclear Double Resonance Spectroscopy. Journal of the American Chemical Society, 1997, 119, 12619-12628. | 13.7 | 16 |
| 42 | Magnetic resonance imaging of the natural history of in situmammary neoplasia in transgenic mice: a pilot study. Breast Cancer Research, 2009, 11, R65. | 5.0 | 16 |
| 43 | Fast Temporal Resolution Dynamic Contrast-Enhanced MRI: Histogram Analysis Versus Visual Analysis for Differentiating Benign and Malignant Breast Lesions. American Journal of Roentgenology, 2018, 211, 933-939. | 2.2 | 15 |
| 44 | Multiparametric MRI Features and Pathologic Outcome of Wedge-Shaped Lesions in the Peripheral Zone on T2-Weighted Images of the Prostate. American Journal of Roentgenology, 2019, 212, 124-129. | 2.2 | 15 |
| 45 | Synthesis of conjugated polyene carbonyl derivatives of nitroxyl spin-labels and determination of their molecular structure and conformation by electron nuclear double resonance. Journal of the American Chemical Society, 1993, 115, 3674-3682. | 13.7 | 14 |
| 46 | Residual analysis of the water resonance signal in breast lesions imaged with high spectral and spatial resolution (HiSS) MRI: A pilot study. Medical Physics, 2014, 41, 012303. | 3.0 | 14 |
| 47 | Diagnosis of Prostate Cancer by Use of MRI-Derived Quantitative Risk Maps: A Feasibility Study. American Journal of Roentgenology, 2019, 213, W66-W75. | 2.2 | 14 |
| 48 | Validation of Prostate Tissue Composition by Using Hybrid Multidimensional MRI: Correlation with Histologic Findings. Radiology, 2022, 302, 368-377. | 7.3 | 14 |
| 49 | 3D high spectral and spatial resolution imaging of <i>ex vivo</i> mouse brain. Medical Physics, 2015, 42, 1463-1472. | 3.0 | 13 |
| 50 | MRI reveals increased tumorigenesis following high fat feeding in a mouse model of tripleâ€negative breast cancer. NMR in Biomedicine, 2017, 30, e3758. | 2.8 | 13 |
| 51 | Low-dose imaging technique (LITE) MRI: initial experience in breast imaging. British Journal of Radiology, 2019, 92, 20190302. | 2.2 | 12 |
| 52 | Assignment of Proton Endor Resonances of Nitroxyl Spin-Labels in Frozen Solution. Free Radical Research Communications, 1990, 10, 95-101. | 1.8 | 11 |
| 53 | Dynamic Contrast-Enhanced Magnetic Resonance Imaging as a Pharmacodynamic Biomarker for Pazopanib in Metastatic Renal Carcinoma. Clinical Genitourinary Cancer, 2017, 15, 207-212. | 1.9 | 10 |
| 54 | Monitoring Anti-Angiogenic Therapy in Colorectal Cancer Murine Model using Dynamic Contrast-Enhanced MRI â€" Comparing Pixel-by-Pixel with Region of Interest Analysis. Technology in Cancer Research and Treatment, 2013, 12, 71-78. | 1.9 | 9 |

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| 55 | Mammary cancer initiation and progression studied with magnetic resonance imaging. Breast Cancer Research, 2014, 16, 495. | 5.0 | 9 |
| 56 | MRI accurately identifies early murine mammary cancers and reliably differentiates between <i>in situ</i> and invasive cancer: correlation of MRI with histology. NMR in Biomedicine, 2015, 28, 1078-1086. | 2.8 | 9 |
| 57 | Breast density estimation from high spectral and spatial resolution MRI. Journal of Medical Imaging, 2016, 3, 044507. | 1.5 | 9 |
| 58 | Magnetic Resonance Imaging and Molecular Characterization of a Hormone-Mediated Murine Model of Prostate Enlargement and Bladder Outlet Obstruction. American Journal of Pathology, 2017, 187, 2378-2387. | 3.8 | 9 |
| 59 | High resolution 3D MRI of mouse mammary glands with intra-ductal injection of contrast media. Magnetic Resonance Imaging, 2015, 33, 161-165. | 1.8 | 8 |
| 60 | Fast bilateral breast coverage with high spectral and spatial resolution (HiSS) MRI at 3T. Journal of Magnetic Resonance Imaging, 2017, 46, 1341-1348. | 3.4 | 8 |
| 61 | Magnetic resonance spectroscopy detects differential lipid composition in mammary glands on low fat, high animal fat versus high fructose diets. PLoS ONE, 2018, 13, e0190929. | 2.5 | 8 |
| 62 | Dynamic fieldâ€ofâ€view imaging to increase temporal resolution in the early phase of contrast media uptake in breast <scp>DCE</scp>â€<scp>MRI</scp>: A feasibility study. Medical Physics, 2018, 45, 1050-1058. | 3.0 | 7 |
| 63 | Can Pre-treatment Quantitative Multi-parametric MRI Predict the Outcome of Radiotherapy in Patients with Prostate Cancer?. Academic Radiology, 2022, 29, 977-985. | 2.5 | 7 |
| 64 | IV Administered Gadodiamide Enters the Lumen of the Prostatic Glands: X-Ray Fluorescence Microscopy Examination of a Mouse Model. American Journal of Roentgenology, 2015, 205, W313-W319. | 2.2 | 6 |
| 65 | The effects of variations in tissue microstructure from postmortem rat brain on the asymmetry of the water proton resonance. Magnetic Resonance in Medicine, 2019, 81, 79-89. | 3.0 | 6 |
| 66 | Discrimination of benign from malignant breast lesions in dense breasts with model-based analysis of regions-of-interest using directional diffusion-weighted images. BMC Medical Imaging, 2020, 20, 61. | 2.7 | 6 |
| 67 | Histological validation of prostate tissue composition measurement using hybrid multi-dimensional MRI: agreement with pathologistsâ€™ measures. Abdominal Radiology, 2022, 47, 801-813. | 2.1 | 6 |
| 68 | Multiple rotamers of 3-(2,2,5,5-tetramethyl-1-oxypyrrolinyl)-2-propen-1-ol, a stereospecific substrate of liver alcohol dehydrogenase: determination of molecular structure and conformation by electron nuclear double resonance. Journal of the American Chemical Society, 1993, 115, 3683-3687. | 13.7 | 5 |
| 69 | T2* relaxation times of intraductal murine mammary cancer, invasive mammary cancer, and normal mammary gland. Medical Physics, 2012, 39, 1309-1313. | 3.0 | 5 |
| 70 | MRI of neonatal necrotizing enterocolitis in a rodent model. NMR in Biomedicine, 2014, 27, 272-279. | 2.8 | 5 |
| 71 | Can DCEMRI assess the effect of green tea on the angiogenic properties of rodent prostate tumors?. Physica Medica, 2010, 26, 111-116. | 0.7 | 4 |
| 72 | Using MRI to detect and differentiate calcium oxalate and calcium hydroxyapatite crystals in air-bubble-free phantom. Physica Medica, 2015, 31, 1075-1079. | 0.7 | 4 |

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|---|---|---|---|
| 73 | Preliminary assessment of dispersion versus absorption analysis of high spectral and spatial resolution magnetic resonance images in the diagnosis of breast cancer. Journal of Medical Imaging, 2015, 2, 024502. | 1.5 | 4 |
| 74 | MRI ductography of contrast agent distribution and leakage in normal mouse mammary ducts and ducts with in situ cancer. Magnetic Resonance Imaging, 2017, 40, 48-52. | 1.8 | 4 |
| 75 | Magnetic Resonance Angiography Shows Increased Arterial Blood Supply Associated with Murine Mammary Cancer. International Journal of Biomedical Imaging, 2019, 2019, 1-6. | 3.9 | 4 |
| 76 | Magnetic resonance angiography reveals increased arterial blood supply and tumorigenesis following high fat feeding in a mouse model of tripleâ€negative breast cancer. NMR in Biomedicine, 2020, 33, e4363. | 2.8 | 4 |
| 77 | Comparison of DCE-MRI of murine model cancers with a low dose and high dose of contrast agent. Physica Medica, 2021, 81, 31-39. | 0.7 | 4 |
| 78 | An in silico validation framework for quantitative DCE-MRI techniques based on a dynamic digital phantom. Medical Image Analysis, 2021, 73, 102186. | 11.6 | 4 |
| 79 | Correlation of In Vivo and Ex Vivo ADC and T2 of In Situ and Invasive Murine Mammary Cancers. PLoS ONE, 2015, 10, e0129212. | 2.5 | 4 |
| 80 | T2*-weighted MRI as a non-contrast-enhanced method for assessment of focal laser ablation zone extent in prostate cancer thermotherapy. European Radiology, 2021, 31, 325-332. | 4.5 | 3 |
| 81 | Signal intensity form of the Tofts model for quantitative analysis of prostate dynamic contrast enhanced MRI data. Physics in Medicine and Biology, 2021, 66, 025002. | 3.0 | 3 |
| 82 | High spectral and spatial resolution MRI of prostate cancer: a pilot study. Magnetic Resonance in Medicine, 2021, 86, 1505-1513. | 3.0 | 3 |
| 83 | Differences Between Ipsilateral and Contralateral Early Parenchymal Enhancement Kinetics Predict Response of Breast Cancer to Neoadjuvant Therapy. Academic Radiology, 2022, 29, 1469-1479. | 2.5 | 3 |
| 84 | Spectral characterization of tissues in high spectral and spatial resolution MR images: Implications for a classificationâ€based synthetic CT algorithm. Medical Physics, 2017, 44, 1865-1875. | 3.0 | 2 |
| 85 | Effect of Echo Times on Prostate Cancer Detection on T2-Weighted Images. Academic Radiology, 2020, 27, 1555-1563. | 2.5 | 2 |
| 86 | Sensitivity to myelin using modelâ€free analysis of the water resonance lineâ€shape in postmortem mouse brain. Magnetic Resonance in Medicine, 2021, 85, 667-677. | 3.0 | 2 |
| 87 | Effectiveness of Dynamic Contrast Enhanced MRI with a Split Dose of Gadoterate Meglumine for Detection of Prostate Cancer. Academic Radiology, 2022, 29, 796-803. | 2.5 | 2 |
| 88 | Enhancement-constrained acceleration: A robust reconstruction framework in breast DCE-MRI. PLoS ONE, 2021, 16, e0258621. | 2.5 | 2 |
| 89 | Use of Indicator Dilution Principle to Evaluate Accuracy of Arterial Input Function Measured With Low-Dose Ultrafast Prostate Dynamic Contrast-Enhanced MRI. Tomography, 2019, 5, 260-265. | 1.8 | 1 |
| 90 | Quantitative evaluation of internal marks made using MRgFUS as seen on MRI, CT, US, and digital color images â€“ A pilot study. Physica Medica, 2014, 30, 941-946. | 0.7 | 0 |

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| 91 | Using Numerical Simulations and Experiments to Compare Different Pure Mathematical Models for Analyzing Dynamic Contrast Enhanced MRI Data. Current Medical Imaging, 2018, 14, 468-476. | 0.8 | 0 |
| 92 | Physically implausible signals as a quantitative quality assessment metric in prostate diffusion-weighted MR imaging. Abdominal Radiology, 2022, , . | 2.1 | 0 |