Piyush Kumar

List of Publications by Year
in descending order

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65 papers	1,572 citations	361413 20 h-index	302126 39 g-index
75 all docs	75 docs citations	75 times ranked	1808 citing authors

#	Article	IF	Citations
1	Hypoxia-specific tumor imaging with 18F-fluoroazomycin arabinoside. Journal of Nuclear Medicine, 2005, 46, 106-13.	5.0	224
2	[18F]Fluoroazomycinarabinofuranoside (18FAZA) and [18F]Fluoromisonidazole (18FMISO): a comparative study of their selective uptake in hypoxic cells and PET imaging in experimental rat tumors. Nuclear Medicine and Biology, 2003, 30, 317-326.	0.6	205
3	Initial results of hypoxia imaging using 1-Î±-d-(5-deoxy-5-[18F]-fluoroarabinofuranosyl)-2-nitroimidazole (18F-FAZA). European Journal of Nuclear Medicine and Molecular Imaging, 2009, 36, 1565-1573.	6.4	162
4	Preparation of the hypoxia imaging PET tracer [18F]FAZA: reaction parameters and automation. Applied Radiation and Isotopes, 2005, 62, 897-901.	1.5	89
5	The Growing Complexity of Cancer Cell Response to DNA-Damaging Agents: Caspase 3 Mediates Cell Death or Survival?. International Journal of Molecular Sciences, 2016, 17, 708.	4.1	64
6	Asialoglycoprotein Receptor-Mediated Gene Delivery to Hepatocytes Using Galactosylated Polymers. Biomacromolecules, 2015, 16, 3008-3020.	5.4	63
7	Galactose-based Thermosensitive Nanogels for Targeted Drug Delivery of Iodoazomycin Arabinofuranoside (IAZA) for Theranostic Management of Hypoxic Hepatocellular Carcinoma. Biomacromolecules, 2015, 16, 1978-1986.	5.4	57
8	Significance of Wild-Type p53 Signaling in Suppressing Apoptosis in Response to Chemical Genotoxic Agents: Impact on Chemotherapy Outcome. International Journal of Molecular Sciences, 2017, 18, 928.	4.1	53
9	Synthesis and Evaluation of Glycopolymeric Decorated Gold Nanoparticles Functionalized with Gold-Triphenyl Phosphine as Anti-Cancer Agents. Biomacromolecules, 2014, 15, 3802-3810.	5.4	48
10	Multinucleated Giant Cancer Cells Produced in Response to Ionizing Radiation Retain Viability and Replicate Their Genome. International Journal of Molecular Sciences, 2017, 18, 360.	4.1	45
11	Design, Synthesis, and Preliminary Biological Evaluation of 6-O-Glucoseâ€“Azomycin Adducts for Diagnosis and Therapy of Hypoxic Tumors. Journal of Medicinal Chemistry, 2012, 55, 6033-6046.	6.4	40
12	Synthesis and Evaluation of Polymeric Gold Glyco-Conjugates as Anti-Cancer Agents. Bioconjugate Chemistry, 2013, 24, 979-986.	3.6	38
13	Effective and Specific Gene Silencing of Epidermal Growth Factor Receptors Mediated by Conjugated Oxaborole and Galactose-Based Polymers. ACS Macro Letters, 2017, 6, 768-774.	4.8	31
14	Microwave-assisted (radio)halogenation of nitroimidazole-based Hypoxia markers. Applied Radiation and Isotopes, 2002, 57, 697-703.	1.5	28
15	The Chemistry and Radiochemistry of Hypoxia-Specific, Radiohalogenated Nitroaromatic Imaging Probes. Seminars in Nuclear Medicine, 2015, 45, 122-135.	4.6	27
16	Trehalose-Based Polyethers for Cryopreservation and Three-Dimensional Cell Scaffolds. Biomacromolecules, 2020, 21, 1264-1273.	5.4	25
17	PEG-PLGA nanospheres loaded with nanoscintillators and photosensitizers for radiation-activated photodynamic therapy. Acta Biomaterialia, 2020, 117, 335-348.	8.3	24
18	Tumor Microenvironment-Regulated Redox Responsive Cationic Galactose-Based Hyperbranched Polymers for siRNA Delivery. Bioconjugate Chemistry, 2019, 30, 405-412.	3.6	22

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19	Synthesis of 6-Substituted 2-Phenyl-3-(5-substituted) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 747 Td (mercapto-1,3,4,thiadiazo 1983, 316, 759-763.	4.1	21
20	Acid Degradable Cationic Galactose-Based Hyperbranched Polymers as Nanotherapeutic Vehicles for Epidermal Growth Factor Receptor (EGFR) Knockdown in Cervical Carcinoma. Biomacromolecules, 2018, 19, 4052-4058.	5.4	21
21	An improved synthesis of Î±-AZA, Î±-AZP and Î±-AZG, the precursors to clinical markers of tissue hypoxia. Tetrahedron Letters, 2001, 42, 2077-2078.	1.4	17
22	Cationic Galactose-Conjugated Copolymers for Epidermal Growth Factor (EGFR) Knockdown in Cervical Adenocarcinoma. ACS Biomaterials Science and Engineering, 2016, 2, 853-859.	5.2	17
23	Synthesis and antiinflammatory activity of 5-(1,2-dihydropyridyl)-tetrazol-2-acetic acids, esters and amides. European Journal of Medicinal Chemistry, 1993, 28, 881-885.	5.5	11
24	Synthesis of 1-.BETA.-D-(5-Deoxy-5-iodoarabinofuranosyl)-2-nitroimidazole (.BETA.-IAZA): A Novel Marker of Tissue Hypoxia.. Chemical and Pharmaceutical Bulletin, 2003, 51, 399-403.	1.3	11
25	[131I]Iodoazomycin arabinoside for low-dose-rate isotope radiotherapy: radiolabeling, stability, long-term whole-body clearance and radiation dosimetry estimates in mice. Nuclear Medicine and Biology, 2005, 32, 647-653.	0.6	11
26	[99mTc]Technetium labelled PnAo-azomycin glucuronides: a novel class of imaging markers of tissue hypoxia. Applied Radiation and Isotopes, 2002, 57, 719-728.	1.5	10
27	Meta-[123I]iodobenzylguanidine is selectively radiotoxic to neuroblastoma cells at concentrations that spare cells of haematopoietic lineage. Nuclear Medicine Communications, 2004, 25, 1125-1130.	1.1	9
28	Synthesis, radiofluorination, and hypoxia-selective studies of FRAZ: A configurational and positional analogue of the clinical hypoxia marker, [18F]-FAZA. Bioorganic and Medicinal Chemistry, 2010, 18, 2255-2264.	3.0	9
29	Bifunctional Metal â€“ Nitroimidazole Complexes for Hypoxia Theranosis in Cancer. Journal of Diagnostic Imaging in Therapy, 2015, 2, 103-158.	0.2	9
30	Cellular mechanism of action of 2-nitroimidazoles as hypoxia-selective therapeutic agents. Redox Biology, 2022, 52, 102300.	9.0	9
31	Achieving Safe and Highly Efficient Epidermal Growth Factor Receptor Silencing in Cervical Carcinoma by Cationic Degradable Hyperbranched Polymers. ACS Applied Bio Materials, 2018, 1, 961-966.	4.6	8
32	Multi-responsive, injectable, and self-healing hydrogels based on benzoxaboroleâ€“tannic acid complexation. Polymer Chemistry, 2021, 12, 5623-5630.	3.9	8
33	Detection of new metabolites of trifluridine (F3TdR) using 19F NMR spectroscopy. Biochemical Pharmacology, 1992, 44, 2223-2228.	4.4	7
34	Synthesis of Iodoaminoimidazole Arabinoside (IAIA): A Potential Reductive Metabolite of the Spect Imaging Agent, Iodoazomycin Arabinoside (IAZA). Nucleosides & Nucleotides, 1999, 18, 1995-2016.	0.5	7
35	Synthesis, radiolabeling, and biodistribution of putative metabolites of iodoazomycin arabinoside. Nuclear Medicine and Biology, 2000, 27, 61-68.	0.6	7
36	Synthesis and Antiviral Activity of Novel Fluorinated 2â€²,3â€²â€Dideoxynucleosides. Nucleosides, Nucleotides and Nucleic Acids, 2004, 23, 7-29.	1.1	7

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37	Oncogenic Epidermal Growth Factor Receptor Silencing in Cervical Carcinoma Mediated by Dynamic Sugar-Benzoxaborole Polyplexes. ACS Macro Letters, 2020, 9, 1464-1470.	4.8	7
38	Novel Thiazolidinones as Potent Anti-Inflammatory and Analgesic Agents. Pharmacology, 1985, 31, 260-267.	2.2	6
39	18F-FESB: synthesis and automated radiofluorination of a novel18F-labeled pet tracer forÎ²-amyloid plaques. Journal of Labelled Compounds and Radiopharmaceuticals, 2005, 48, 983-996.	1.0	6
40	In Vitro and In Vivo Evaluation of [¹⁸F]F-GAZ, a Novel Oxygen-Mimetic Azomycin-Glucose Conjugate, for Imaging Hypoxic Tumor. Cancer Biotherapy and Radiopharmaceuticals, 2012, 27, 473-480.	1.0	6
41	Positron Emission Tomography (PET) and Pharmacokinetics: Classical Blood Sampling Versus Image-Derived Analysis of [18F]FAZA and [18F]FDG in a Murine Tumor Bearing Model. Journal of Pharmacy and Pharmaceutical Sciences, 2018, 21, 32s-47s.	2.1	6
42	Antitubercular and cns activities of some 2-aryl-3-[N-(2/3/4-benzimidazol 2yl)phenyl]iminomethylenyl indoles. Pharmacological Research Communications, 1984, 16, 831-844.	0.2	5
43	Synthesis of Î²-azomycin nucleosides: 1-(Î²-d-2-iodo-2-deoxyarabinofuranosyl)-2-nitroimidazole (Î²-2-IAZA), a novel marker of tissue hypoxia. Tetrahedron Letters, 2002, 43, 4427-4429.	1.4	5
44	Development of an Economical, Single Step Synthesis of FAZA, a Clinical Hypoxia Marker, and Potential Synthons to Prepare its Positional Analogs. Letters in Drug Design and Discovery, 2009, 6, 82-85.	0.7	5
45	Identification of proteins and cellular pathways targeted by 2-nitroimidazole hypoxic cytotoxins. Redox Biology, 2021, 41, 101905.	9.0	5
46	Synthesis, transportability and hypoxiaselective binding of 1-beta-D-(5-Deoxy-5-fluororibofuranosyl)-2-nitroimidazole (beta-5-FAZR), a configurational isomer of the clinical hypoxia marker, FAZA. Journal of Pharmacy and Pharmaceutical Sciences, 2007, 10, 237-45.	2.1	5
47	Synthesis and Biological Evaluation of Iodoglucoazomycin (Iâ€GAZ), an Azomycinâ€“Glucose Adduct with Putative Applications in Diagnostic Imaging and Radiotherapy of Hypoxic Tumors. ChemMedChem, 2016, 11, 1638-1645.	3.2	4
48	Synthesis of Novel Fluorinated 2â€²,3â€²-Dideoxynucleosides. Nucleosides & Nucleotides, 1992, 11, 401-416.	0.5	3
49	Î±-trifluoromethyl-Î²-alanyl glycine (F3MBAG): A novel mammalian metabolite of trifluridine (F3TdR). Biochemical Pharmacology, 1994, 48, 1033-1041.	4.4	3
50	Stereospecific deuteration of Î±-furanosyl azomycin nucleosides: A model reaction for tritium radiolabeling. Bioorganic and Medicinal Chemistry Letters, 2008, 18, 3256-3260.	2.2	3
51	Development of [131I]I-EOE-TPZ and [131I]I-EOE-TPZMO: Novel Tirapazamine (TPZ)-Based Radioiodinated Pharmaceuticals for Application in Theranostic Management of Hypoxia. Pharmaceuticals, 2019, 12, 3.	3.8	3
52	Î±-Trifluoromethyl-Î²-Ureido-Propionic Acid (F₃MUPA): A New Metabolite of Trifluridine (F₃TdR). Nucleosides & Nucleotides, 1993, 12, 803-814.	0.5	2
53	Synthesis and radioiodination of 3-(E)-(2-iodovinyl)-N-acetyl-4-cysteaminylphenol, a putative tyrosinase substrate for imaging neural crest tumours. Journal of Labelled Compounds and Radiopharmaceuticals, 1998, 41, 355-361.	1.0	2
54	A One-Pot Synthesis of 1-Î±- And 1-Î²-D-Arabinofuranosyl-2-Nitroimidazoles: Synthons to the Markers of Tumor Hypoxia. Nucleosides, Nucleotides and Nucleic Acids, 2005, 24, 173-178.	1.1	2

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55	Microwave-assisted Radiosynthesis of the Hypoxia Marker 1-α-D-(5-) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 747 Td ([¹⁸F]FAZA). Current Radiopharmaceuticals, 2014, 7, 49-56.	0.8	2
56	Putative electron-affinic radiosensitizers and markers of hypoxic tissue: Synthesis and preliminary inÂvitro biological characterization of C3-amino-substituted benzotriazine dioxides (BTDOs). European Journal of Medicinal Chemistry, 2019, 165, 216-224.	5.5	2
57	Î² -[¹⁸F]Fluoro Azomycin Arabinoside (Î² -[¹⁸F]FAZA): Synthesis, Radiofluorination and Preliminary PET Imaging of Murine A431 Tumors. Current Radiopharmaceuticals, 2017, 10, 93-101.	0.8	2
58	A One-Pot Synthesis of 1-Î±- And 1-Î²-D-Arabinofuranosyl-2-Nitroimidazoles: Synthons to the Markers of Tumor Hypoxia. Nucleosides, Nucleotides and Nucleic Acids, 2005, 24, 173-178.	1.1	1
59	Radiosynthesis, in vitro cellular uptake and in vivo biodistribution of 3â€²-O-(3-benzenesulfonylfuroxan-4-yl)-5-[125I]iodo-2â€²-deoxyuridine, a nucleoside-based nitric oxide donor. Nuclear Medicine and Biology, 2005, 32, 641-645.	0.6	1
60	Biochemistry and Biology of 2'-Fluoro-2'-Deoxythymidine (FT), A Putative Highly Selective Substrate for Thymidine Kinase Type 2 (TK2). Current Radiopharmaceuticals, 2012, 5, 38-46.	0.8	1
61	A Simple Computational Tool for Accurate, Quantitative Prediction of Oneâ€“Electron Reduction Potentials of Hypoxiaâ€“Activated Tirapazamine Analogues. Journal of Pharmacy and Pharmaceutical Sciences, 2020, 23, 231-242.	2.1	1
62	Glyco-Nanomedicines and Their Applications in Cancer Treatment. , 2021, , 566-585.		1
63	Clinical Manufacturing of [18F]-16-Î±-Fluoroestradiol ([18F]FES). , 0, , 69-80.		1
64	Synthesis of Bromophenyl Î²-D-Glucuronides: Hydrophilic Precursors of Lipophilic Standards in the Analysis of Environmental Polychlorinated Biphenyls. Collection of Czechoslovak Chemical Communications, 2006, 71, 1042-1050.	1.0	0
65	Synthesis of [18F]FAZA Using Nosyl and Iodo Precursors for Nucleophilic Radiofluorination. Current Radiopharmaceuticals, 2019, 12, 49-57.	0.8	0