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	Cellular mechanism of action of 2-nitroimidazoles as hypoxia-selective therapeutic agents. Redox Biology, 2022, 52, 102300.	9.0	9
2	Glyco-Nanomedicines and Their Applications in Cancer Treatment. , 2021, , 566-585.		1
3	Multi-responsive, injectable, and self-healing hydrogels based on benzoxaboroleâ€“tannic acid complexation. Polymer Chemistry, 2021, 12, 5623-5630.	3.9	8
4	Identification of proteins and cellular pathways targeted by 2-nitroimidazole hypoxic cytotoxins. Redox Biology, 2021, 41, 101905.	9.0	5
5	Trehalose-Based Polyethers for Cryopreservation and Three-Dimensional Cell Scaffolds. Biomacromolecules, 2020, 21, 1264-1273.	5.4	25
6	PEG-PLGA nanospheres loaded with nanoscintillators and photosensitizers for radiation-activated photodynamic therapy. Acta Biomaterialia, 2020, 117, 335-348.	8.3	24
7	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
8	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
9	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
10	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
11	Tumor Microenvironment-Regulated Redox Responsive Cationic Galactose-Based Hyperbranched Polymers for siRNA Delivery. Bioconjugate Chemistry, 2019, 30, 405-412.	3.6	22
12	Synthesis of [18F]FAZA Using Nosyl and Iodo Precursors for Nucleophilic Radiofluorination. Current Radiopharmaceuticals, 2019, 12, 49-57.	0.8	0
13	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
14	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
15	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
16	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
17	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
18	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

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19	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
20	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
21	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
22	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
23	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
24	The Chemistry and Radiochemistry of Hypoxia-Specific, Radiohalogenated Nitroaromatic Imaging Probes. Seminars in Nuclear Medicine, 2015, 45, 122-135.	4.6	27
25	Asialoglycoprotein Receptor-Mediated Gene Delivery to Hepatocytes Using Galactosylated Polymers. Biomacromolecules, 2015, 16, 3008-3020.	5.4	63
26	Bifunctional Metal â€“ Nitroimidazole Complexes for Hypoxia Theranosis in Cancer. Journal of Diagnostic Imaging in Therapy, 2015, 2, 103-158.	0.2	9
27	Microwave-assisted Radiosynthesis of the Hypoxia Marker 1-α-D-(5-) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 427 Td [D ([¹⁸F]FAZA). Current Radiopharmaceuticals, 2014, 7, 49-56.	0.8	2
28	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
29	Synthesis and Evaluation of Polymeric Gold Glyco-Conjugates as Anti-Cancer Agents. Bioconjugate Chemistry, 2013, 24, 979-986.	3.6	38
30	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
31	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
32	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
33	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
34	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
35	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
36	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

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37	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
38	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
39	Preparation of the hypoxia imaging PET tracer [18F]FAZA: reaction parameters and automation. Applied Radiation and Isotopes, 2005, 62, 897-901.	1.5	89
40	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
41	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
42	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
43	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
44	[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
45	Hypoxia-specific tumor imaging with 18F-fluoroazomycin arabinoside. Journal of Nuclear Medicine, 2005, 46, 106-13.	5.0	224
46	Synthesis and Antiviral Activity of Novel Fluorinated 2â€²,3â€²â€Dideoxynucleosides. Nucleosides, Nucleotides and Nucleic Acids, 2004, 23, 7-29.	1.1	7
47	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
48	[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
49	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
50	[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
51	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
52	Microwave-assisted (radio)halogenation of nitroimidazole-based Hypoxia markers. Applied Radiation and Isotopes, 2002, 57, 697-703.	1.5	28
53	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
54	Synthesis, radiolabeling, and biodistribution of putative metabolites of iodoazomycin arabinoside. Nuclear Medicine and Biology, 2000, 27, 61-68.	0.6	7

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55	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
56	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
57	Î±-trifluoromethyl-Î²-alanyl glycine (F3MBAG): A novel mammalian metabolite of trifluridine (F3TdR). Biochemical Pharmacology, 1994, 48, 1033-1041.	4.4	3
58	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
59	Î±-Trifluoromethyl-Î²-Ureido-Propionic Acid (F₃MUPA): A New Metabolite of Trifluridine (F₃TdR). Nucleosides & Nucleotides, 1993, 12, 803-814.	0.5	2
60	Synthesis of Novel Fluorinated 2â€²,3â€²-Dideoxynucleosides. Nucleosides & Nucleotides, 1992, 11, 401-416.	0.5	3
61	Detection of new metabolites of trifluridine (F3TdR) using 19F NMR spectroscopy. Biochemical Pharmacology, 1992, 44, 2223-2228.	4.4	7
62	Novel Thiazolidinones as Potent Anti-Inflammatory and Analgesic Agents. Pharmacology, 1985, 31, 260-267.	2.2	6
63	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
64	Synthesis of 6-Substituted 2-Phenyl-3-(5-substituted) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 Td (mercapto-1,3,4,thiadiazol-2-yl)quina 1983, 316, 759-763.	4.1	21
65	Clinical Manufacturing of [18F]-16-Î±-Fluoroestradiol ([18F]FES). , 0, , 69-80.		1