Jindrich Kopecek

List of Publications by Citations

244 papers	16,268 citations	68 h-index	117 g-index
248 ext. papers	17,223 ext. citations	8.6 avg, IF	6.99 L-index

#	Paper	IF	Citations
244	Hydrogel biomaterials: a smart future?. *Biomaterials*, **2007**, 28, 5185-92	15.6	717
243	Diverse Applications of Nanomedicine. *ACS Nano*, **2017**, 11, 2313-2381	16.7	714
242	Prospects for cationic polymers in gene and oligonucleotide therapy against cancer. *Advanced Drug Delivery Reviews*, **2002**, 54, 715-58	18.5	705
241	Hybrid hydrogels assembled from synthetic polymers and coiled-coil protein domains. *Nature*, **1999** , 397, 417-20	50.4	503
240	HPMA copolymers: origins, early developments, present, and future. *Advanced Drug Delivery Reviews*, **2010**, 62, 122-49	18.5	456
239	Protein-resistant surfaces prepared by PEO-containing block copolymer surfactants. *Journal of Biomedical Materials Research Part B*, **1989**, 23, 351-68		360
238	Hydrogels as smart biomaterials. *Polymer International*, **2007**, 56, 1078-1098	3.3	337
237	Polymer-drug conjugates: origins, progress to date and future directions. *Advanced Drug Delivery Reviews*, **2013**, 65, 49-59	18.5	287
236	Intracellular targeting of polymer-bound drugs for cancer chemotherapy. *Advanced Drug Delivery Reviews*, **2005**, 57, 609-36	18.5	278
235	HYDROGELS FROM SOFT CONTACT LENSES AND IMPLANTS TO SELF-ASSEMBLED NANOMATERIALS. *Journal of Polymer Science Part A*, **2009**, 47, 5929-5946	2.5	274
234	Smart self-assembled hybrid hydrogel biomaterials. *Angewandte Chemie - International Edition*, **2012**, 51, 7396-417	16.4	244
233	Smart and genetically engineered biomaterials and drug delivery systems. *European Journal of Pharmaceutical Sciences*, **2003**, 20, 1-16	5.1	229
232	PEGylation of poly(ethylene imine) affects stability of complexes with plasmid DNA under in vivo conditions in a dose-dependent manner after intravenous injection into mice. *Bioconjugate Chemistry*, **2005**, 16, 785-92	6.3	208
231	Polymers containing enzymatically degradable bonds, 8. Degradation of oligopeptide sequences in N-(2-hydroxypropyl)methacrylamide copolymers by bovine spleen cathepsin B. *Die Makromolekulare Chemie*, **1983**, 184, 2009-2020		208
230	Peptide-directed self-assembly of hydrogels. *Acta Biomaterialia*, **2009**, 5, 805-16	10.8	183
229	Surface properties of copolymers of alkyl methacrylates with methoxy (polyethylene oxide) methacrylates and their application as protein-resistant coatings. *Biomaterials*, **1990**, 11, 455-64	15.6	179
228	Aminolyses of monomeric and polymeric 4-nitrophenyl esters of N-methacryloylamino acids. *Die Makromolekulare Chemie*, **1977**, 178, 2159-2168		172

227	Bone-targeting macromolecular therapeutics. *Advanced Drug Delivery Reviews*, **2005**, 57, 1049-76	18.5	157
226	Efficacy of the chemotherapeutic action of HPMA copolymer-bound doxorubicin in a solid tumor model of ovarian carcinoma. *International Journal of Cancer*, **2000**, 86, 108-17	7.5	152
225	Polymers containing enzymatically degradable bonds, 7. Design of oligopeptide side-chains in poly[N-(2-hydroxypropyl)methacrylamide] copolymers to promote efficient degradation by lysosomal enzymes. *Die Makromolekulare Chemie*, **1983**, 184, 1997-2008		151
224	Targeted delivery of doxorubicin by HPMA copolymer-hyaluronan bioconjugates. *Pharmaceutical Research*, **2002**, 19, 396-402	4.5	142
223	Controlled biodegradability of polymers--a key to drug delivery systems. *Biomaterials*, **1984**, 5, 19-25	15.6	140
222	Reversible hydrogels from self-assembling genetically engineered protein block copolymers. *Biomacromolecules*, **2005**, 6, 1739-49	6.9	139
221	Synthesis and evaluation of water-soluble polymeric bone-targeted drug delivery systems. *Bioconjugate Chemistry*, **2003**, 14, 853-9	6.3	133
220	Refolding hydrogels self-assembled from N-(2-hydroxypropyl)methacrylamide graft copolymers by antiparallel coiled-coil formation. *Biomacromolecules*, **2006**, 7, 1187-95	6.9	132
219	Pegylated polyethylenimine-Fab' antibody fragment conjugates for targeted gene delivery to human ovarian carcinoma cells. *Bioconjugate Chemistry*, **2003**, 14, 989-96	6.3	130
218	Intracellular processing of poly(ethylene imine)/ribozyme complexes can be observed in living cells by using confocal laser scanning microscopy and inhibitor experiments. *Pharmaceutical Research*, **2002**, 19, 140-6	4.5	126
217	Novel pH-sensitive hydrogels with adjustable swelling kinetics. *Biomaterials*, **1998**, 19, 1037-47	15.6	124
216	Biodegradation of biomedical polymers. *Progress in Polymer Science*, **1983**, 9, 1-58	29.6	116
215	Polymers containing enzymatically degradable bonds, 1. Chymotrypsin catalyzed hydrolysis of p-nitroanilides of phenylalanine and tyrosine attached to side-chains of copolymers of N-(2-hydroxypropyl)methacrylamide. *Die Makromolekulare Chemie*, **1981**, 182, 799-809		115
214	Tat-conjugated synthetic macromolecules facilitate cytoplasmic drug delivery to human ovarian carcinoma cells. *Bioconjugate Chemistry*, **2003**, 14, 44-50	6.3	113
213	The pharmacokinetics of polymer-bound adriamycin. *Biochemical Pharmacology*, **1990**, 39, 1125-31	6	113
212	Enhancing Accumulation and Penetration of HPMA Copolymer-Doxorubicin Conjugates in 2D and 3D Prostate Cancer Cells via iRGD Conjugation with an MMP-2 Cleavable Spacer. *Journal of the American Chemical Society*, **2015**, 137, 6726-9	16.4	112
211	Biodegradable Multiblock Poly[N-(2-hydroxypropyl)methacrylamide] via Reversible Addition-Fragmentation Chain Transfer Polymerization and Click Chemistry. *Macromolecules*, **2011**, 44, 2481-2488	5.5	111
210	Targeting polymer therapeutics to bone. *Advanced Drug Delivery Reviews*, **2012**, 64, 1189-204	18.5	110

209	Sequential combination therapy of ovarian cancer with degradable N-(2-hydroxypropyl)methacrylamide copolymer paclitaxel and gemcitabine conjugates. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 12181-6	11.5	108
208	Polymerizable Fab' antibody fragments for targeting of anticancer drugs. *Nature Biotechnology*, **1999**, 17, 1101-4	44.5	106
207	Cytoplasmic delivery and nuclear targeting of synthetic macromolecules. *Journal of Controlled Release*, **2003**, 87, 89-105	11.7	103
206	Comparison of the anticancer effect of free and HPMA copolymer-bound adriamycin in human ovarian carcinoma cells. *Pharmaceutical Research*, **1999**, 16, 986-96	4.5	102
205	Synthesis of Biodegradable Multiblock Copolymers by Click Coupling of RAFT-Generated HeterotelechelicPolyHPMA Conjugates. *Reactive and Functional Polymers*, **2011**, 71, 294-302	4.6	99
204	Drug-free macromolecular therapeutics: induction of apoptosis by coiled-coil-mediated cross-linking of antigens on the cell surface. *Angewandte Chemie - International Edition*, **2010**, 49, 1451-5	16.4	99
203	Synthesis of starlike N-(2-hydroxypropyl)methacrylamide copolymers: potential drug carriers. *Biomacromolecules*, **2000**, 1, 313-9	6.9	98
202	Hydrogels for site-specific drug delivery to the colon: in vitro and in vivo degradation. *Pharmaceutical Research*, **1992**, 9, 1540-5	4.5	98
201	Targetable polymeric prodrugs. *Journal of Controlled Release*, **1987**, 6, 315-327	11.7	96
200	Design of novel bioconjugates for targeted drug delivery. *Journal of Controlled Release*, **2002**, 78, 165-73	11.7	95
199	Antigen Responsive Hydrogels Based on Polymerizable Antibody Fab? Fragment. *Macromolecular Bioscience*, **2003**, 3, 296-300	5.5	95
198	Anticancer agents coupled to N-(2-hydroxypropyl)methacrylamide copolymers. 3. Evaluation of adriamycin conjugates against mouse leukaemia L1210 in vivo. *Journal of Controlled Release*, **1989**, 10, 51-63	11.7	94
197	Synthesis and evaluation of a backbone biodegradable multiblock HPMA copolymer nanocarrier for the systemic delivery of paclitaxel. *Journal of Controlled Release*, **2013**, 166, 66-74	11.7	93
196	Associative diblock copolymers of poly(ethylene glycol) and coiled-coil peptides. *Macromolecular Bioscience*, **2002**, 2, 199	5.5	93
195	Degradation of side-chains of N-(2-hydroxypropyl)methacrylamide copolymers by lysosomal thiol-proteinases. *Bioscience Reports*, **1982**, 2, 1041-6	4.1	92
194	Targeting angiogenesis-dependent calcified neoplasms using combined polymer therapeutics. *PLoS ONE*, **2009**, 4, e5233	3.7	92
193	Smart hydrogels containing adenylate kinase: translating substrate recognition into macroscopic motion. *Journal of the American Chemical Society*, **2008**, 130, 15760-1	16.4	90
192	Solution properties of drug carriers based on poly[N-(2-hydroxypropyl)methacrylamide] containing biodegradable bonds. *Die Makromolekulare Chemie*, **1987**, 188, 1261-1272		90

191	Chronic exposure to HPMA copolymer-bound adriamycin does not induce multidrug resistance in a human ovarian carcinoma cell line. *Journal of Controlled Release*, **1999**, 59, 133-48	11.7	89
190	In vitro degradation of pH-sensitive hydrogels containing aromatic azo bonds. *Biomaterials*, **1997**, 18, 861-72	15.6	86
189	Backbone degradable multiblock N-(2-hydroxypropyl)methacrylamide copolymer conjugates via reversible addition-fragmentation chain transfer polymerization and thiol-ene coupling reaction. *Biomacromolecules*, **2011**, 12, 247-52	6.9	83
188	Photodynamic crosslinking of proteins. I. Model studies using histidine- and lysine-containing N-(2-hydroxypropyl)methacrylamide copolymers. *Journal of Photochemistry and Photobiology B: Biology*, **1996**, 34, 203-10	6.7	83
187	Biodistribution and pharmacokinetic studies of bone-targeting N-(2-hydroxypropyl)methacrylamide copolymer-alendronate conjugates. *Molecular Pharmaceutics*, **2008**, 5, 548-58	5.6	82
186	Biological properties of targetable poly[N-(2-hydroxypropyl)-methacrylamide]-antibody conjugates. *Journal of Controlled Release*, **1985**, 2, 289-310	11.7	81
185	Osteotropic Peptide that differentiates functional domains of the skeleton. *Bioconjugate Chemistry* , **2007**, 18, 1375-8	6.3	80
184	HPMA copolymer-anticancer drug-OV-TL16 antibody conjugates. II. Processing in epithelial ovarian carcinoma cells in vitro. *International Journal of Cancer*, **1998**, 75, 600-8	7.5	77
183	Pharmacokinetic and biodistribution studies of a bone-targeting drug delivery system based on N-(2-hydroxypropyl)methacrylamide copolymers. *Molecular Pharmaceutics*, **2006**, 3, 717-25	5.6	75
182	Biorecognizable HPMA copolymer-drug conjugates for colon-specific delivery of 9-aminocamptothecin. *Journal of Controlled Release*, **2001**, 75, 365-79	11.7	74
181	Polymers containing enzymatically degradable bonds. VI. Hydrophilic gels cleavable by chymotrypsin. *Biomaterials*, **1982**, 3, 150-4	15.6	74
180	Activity of N-(2-hydroxypropyl)methacrylamide copolymers containing daunomycin against a rat tumour model. *Biochemical Pharmacology*, **1989**, 38, 875-9	6	73
179	Enhanced anti-tumor activity and safety profile of targeted nano-scaled HPMA copolymer-alendronate-TNP-470 conjugate in the treatment of bone malignances. *Biomaterials*, **2011**, 32, 4450-63	15.6	71
178	Hybrid hydrogels self-assembled from HPMA copolymers containing peptide grafts. *Macromolecular Bioscience*, **2006**, 6, 201-9	5.5	69
177	Enhanced biorecognition and internalization of HPMA copolymers containing multiple or multivalent carbohydrate side-chains by human hepatocarcinoma cells. *Bioconjugate Chemistry*, **2001**, 12, 890-9	6.3	67
176	Biodistribution of free and N-(2-hydroxypropyl)methacrylamide copolymer-bound mesochlorin e(6) and adriamycin in nude mice bearing human ovarian carcinoma OVCAR-3 xenografts. *Journal of Controlled Release*, **1999**, 61, 145-57	11.7	67
175	Coiled-coil based drug-free macromolecular therapeutics: in vivo efficacy. *Journal of Controlled Release*, **2012**, 157, 126-31	11.7	63
174	Genetically engineered block copolymers: influence of the length and structure of the coiled-coil blocks on hydrogel self-assembly. *Pharmaceutical Research*, **2008**, 25, 674-82	4.5	62

173	Cell surface self-assembly of hybrid nanoconjugates via oligonucleotide hybridization induces apoptosis. *ACS Nano*, **2014**, 8, 719-30	16.7	60
172	Colon-specific 9-aminocamptothecin-HPMA copolymer conjugates containing a 1,6-elimination spacer. *Journal of Controlled Release*, **2006**, 110, 323-331	11.7	60
171	Preliminary evaluation of caspases-dependent apoptosis signaling pathways of free and HPMA copolymer-bound doxorubicin in human ovarian carcinoma cells. *Journal of Controlled Release*, **2001**, 71, 227-37	11.7	57
170	Semitelechelic HPMA copolymers functionalized with triphenylphosphonium as drug carriers for membrane transduction and mitochondrial localization. *Biomacromolecules*, **2006**, 7, 2347-56	6.9	56
169	Macromolecular therapeutics. *Journal of Controlled Release*, **2014**, 190, 288-303	11.7	55
168	Endocytic uptake of a large array of HPMA copolymers: Elucidation into the dependence on the physicochemical characteristics. *Journal of Controlled Release*, **2010**, 143, 71-9	11.7	54
167	Biological rationale for the design of polymeric anti-cancer nanomedicines. *Journal of Drug Targeting*, **2013**, 21, 1-26	5.4	53
166	Hyaluronan oligomers-HPMA copolymer conjugates for targeting paclitaxel to CD44-overexpressing ovarian carcinoma. *Pharmaceutical Research*, **2012**, 29, 1121-33	4.5	53
165	Biorecognition and subcellular trafficking of HPMA copolymer-anti-PSMA antibody conjugates by prostate cancer cells. *Molecular Pharmaceutics*, **2009**, 6, 959-70	5.6	53
164	The influence of cytotoxicity of macromolecules and of VEGF gene modulated vascular permeability on the enhanced permeability and retention effect in resistant solid tumors. *Pharmaceutical Research*, **2000**, 17, 505-14	4.5	53
163	Degradation of side chains of N-(2-hydroxypropyl) methacrylamide copolymers by lysosomal enzymes. *Biochemical and Biophysical Research Communications*, **1980**, 94, 284-90	3.4	53
162	Combination chemotherapy and photodynamic therapy with fab' fragment targeted HPMA copolymer conjugates in human ovarian carcinoma cells. *Molecular Pharmaceutics*, **2008**, 5, 696-709	5.6	52
161	N-(2-hydroxypropyl) methacrylamide copolymers containing pendant saccharide moieties: Synthesis and bioadhesive properties. *Journal of Polymer Science Part A*, **1991**, 29, 1895-1902	2.5	52
160	Polymers containing enzymatically degradable bonds, 2. Poly[N-(2-hydroxypropyl)methacrylamide] chains connected by oligopeptide sequences cleavable by chymotrypsin. *Die Makromolekulare Chemie*, **1981**, 182, 1899-1915		52
159	The arthrotropism of macromolecules in adjuvant-induced arthritis rat model: a preliminary study. *Pharmaceutical Research*, **2004**, 21, 1741-9	4.5	51
158	Anti-CD20 multivalent HPMA copolymer-Fab' conjugates for the direct induction of apoptosis. *Biomaterials*, **2012**, 33, 7174-81	15.6	50
157	Synthesis of long-circulating, backbone degradable HPMA copolymer-doxorubicin conjugates and evaluation of molecular-weight-dependent antitumor efficacy. *Macromolecular Bioscience*, **2013**, 13, 155-60	5.5	50
156	Synthesis and characterization of novel aromatic azo bond-containing pH-sensitive and hydrolytically cleavable IPN hydrogels. *Biomaterials*, **2006**, 27, 1140-51	15.6	49

155	Enzymatic activity of chymotrypsin and its poly(ethylene glycol) conjugates toward low and high molecular weight substrates. *Bioconjugate Chemistry*, **1993**, 4, 290-5	6.3	49
154	Poly[N -(2-hydroxypropyl)methacrylamide- block - n -butyl acrylate] micelles in water/DMF mixed solvents. *Polymer*, **2002**, 43, 3735-3741	3.9	48
153	Water-soluble HPMA copolymer--prostaglandin E1 conjugates containing a cathepsin K sensitive spacer. *Journal of Drug Targeting*, **2006**, 14, 425-35	5.4	47
152	The coiled coils in the design of protein-based constructs: hybrid hydrogels and epitope displays. *Journal of Controlled Release*, **2001**, 72, 57-70	11.7	47
151	Degradation of proteins by guinea pig intestinal enzymes. *International Journal of Pharmaceutics*, **1993**, 95, 171-179	6.5	47
150	Selective inhibitory effect of HPMA copolymer-cyclopamine conjugate on prostate cancer stem cells. *Biomaterials*, **2012**, 33, 1863-72	15.6	46
149	Hybrid hydrogels self-assembled from graft copolymers containing complementary β-sheets as hydroxyapatite nucleation scaffolds. *Biomaterials*, **2011**, 32, 5341-53	15.6	46
148	Lysosomal degradability of poly(alpha-amino acids). *Journal of Biomedical Materials Research Part B*, **1997**, 34, 381-92		46
147	Poly(ethylene glycol)s containing enzymatically degradable bonds. *Die Makromolekulare Chemie*, **1986**, 187, 1131-1144		46
146	Polymers containing enzymatically degradable bonds, 4. Preliminary experiments in vivo. *Die Makromolekulare Chemie*, **1981**, 182, 2941-2949		46
145	HPMA copolymer-based combination therapy toxic to both prostate cancer stem/progenitor cells and differentiated cells induces durable anti-tumor effects. *Journal of Controlled Release*, **2013**, 172, 946-53	11.7	45
144	FRET-trackable biodegradable HPMA copolymer-epirubicin conjugates for ovarian carcinoma therapy. *Journal of Controlled Release*, **2015**, 218, 36-44	11.7	44
143	Synthesis and evaluation of multivalent branched HPMA copolymer-Fab' conjugates targeted to the B-cell antigen CD20. *Bioconjugate Chemistry*, **2009**, 20, 129-37	6.3	44
142	Novel HPMA copolymer-bound constructs for combined tumor and mitochondrial targeting. *Molecular Pharmaceutics*, **2008**, 5, 776-86	5.6	44
141	Enantioselective release of 5-fluorouracil from N-(2-hydroxypropyl)methacrylamide-based copolymers via lysosomal enzymes. *Bioconjugate Chemistry*, **1995**, 6, 483-92	6.3	44
140	Design of smart HPMA copolymer-based nanomedicines. *Journal of Controlled Release*, **2016**, 240, 9-23	11.7	43
139	Combination cytotoxicity of backbone degradable HPMA copolymer gemcitabine and platinum conjugates toward human ovarian carcinoma cells. *European Journal of Pharmaceutics and Biopharmaceutics*, **2014**, 87, 187-96	5.7	42
138	Dynamic light scattering study of self-assembly of HPMA hybrid graft copolymers. *Biomacromolecules*, **2008**, 9, 510-7	6.9	42

137	Inhibition of cathepsin K with lysosomotropic macromolecular inhibitors. *Biochemistry*, **2002**, 41, 8849-59	3.2	42
136	Synthesis of HPMA Copolymer Containing Adriamycin Bound via an Acid-Labile Spacer and its Activity toward Human Ovarian Carcinoma Cells. *Journal of Bioactive and Compatible Polymers*, **1999**, 14, 447-456	2	42
135	Soluble, crosslinked N-(2-hydroxypropyl)methacrylamide copolymers as potential drug carriers. *Journal of Controlled Release*, **1987**, 4, 265-278	11.7	42
134	The Light at the End of the Tunnel-Second Generation HPMA Conjugates for Cancer Treatment. *Current Opinion in Colloid and Interface Science*, **2017**, 31, 30-42	7.6	41
133	HPMA copolymer-bound doxorubicin induces apoptosis in ovarian carcinoma cells by the disruption of mitochondrial function. *Molecular Pharmaceutics*, **2006**, 3, 351-61	5.6	41
132	Biodegradable multiblock poly(N-2-hydroxypropyl)methacrylamide gemcitabine and paclitaxel conjugates for ovarian cancer cell combination treatment. *International Journal of Pharmaceutics*, **2013**, 454, 435-43	6.5	40
131	Drug-Free Macromolecular Therapeutics--A New Paradigm in Polymeric Nanomedicines. *Biomaterials Science*, **2015**, 3, 908-22	7.4	40
130	Self-Assembling Hydrogels. *Polymer Bulletin*, **2007**, 58, 53-63	2.4	40
129	The role of galactose, lactose, and galactose valency in the biorecognition of N-(2-hydroxypropyl)methacrylamide copolymers by human colon adenocarcinoma cells. *Pharmaceutical Research*, **2002**, 19, 1114-22	4.5	40
128	Responsive hybrid hydrogels with volume transitions modulated by a titin immunoglobulin module. *Bioconjugate Chemistry*, **2000**, 11, 734-40	6.3	40
127	Effect of galactose on interaction of N-(2-hydroxypropyl)methacrylamide copolymers with hepatoma cells in culture: preliminary application to an anticancer agent, daunomycin. *Hepatology*, **1989**, 10, 207-14	11.2	40
126	Polymers containing enzymatically degradable bonds, 3. Poly[N-(2-hydroxypropyl)methacrylamide] chains connected by oligopeptide sequences cleavable by trypsin. *Die Makromolekulare Chemie*, **1981**, 182, 1917-1928		40
125	pH-Sensitive Hydrogels. *ACS Symposium Series*, **1992**, 285-304	0.4	39
124	Synthesis and characterization of enzymatically degradable PEG-based peptide-containing hydrogels. *Macromolecular Bioscience*, **2010**, 10, 445-54	5.5	38
123	Free and N-(2-hydroxypropyl)methacrylamide copolymer-bound geldanamycin derivative induce different stress responses in A2780 human ovarian carcinoma cells. *Cancer Research*, **2003**, 63, 7876-82	10.1	38
122	Inhibition of Immunosuppressive Tumors by Polymer-Assisted Inductions of Immunogenic Cell Death and Multivalent PD-L1 Crosslinking. *Advanced Functional Materials*, **2020**, 30, 1908961	15.6	37
121	Bone-targeted acid-sensitive doxorubicin conjugate micelles as potential osteosarcoma therapeutics. *Bioconjugate Chemistry*, **2014**, 25, 2012-20	6.3	36
120	Biomaterials and drug delivery: past, present, and future. *Molecular Pharmaceutics*, **2010**, 7, 922-5	5.6	36

119	Synthesis and activity of a polymer which contains insulin covalently bound on a copolymer of N-(2-hydroxypropyl)methacrylamide and N-methacryloyldiglycyl p-nitrophenyl ester. *Die Makromolekulare Chemie*, **1978**, 179, 329-336		36
118	A Two-Step Pretargeted Nanotherapy for CD20 Crosslinking May Achieve Superior Anti-Lymphoma Efficacy to Rituximab. *Theranostics*, **2015**, 5, 834-46	12.1	35
117	Biological activity of anti-CD20 multivalent HPMA copolymer-Fab' conjugates. *Biomacromolecules*, **2012**, 13, 727-35	6.9	35
116	Binding and cytotoxicity of HPMA copolymer conjugates to lymphocytes mediated by receptor-binding epitopes. *Pharmaceutical Research*, **2003**, 20, 360-7	4.5	35
115	Novel Aromatic Azo-Containing pH-Sensitive Hydrogels: Synthesis and Characterization. *Macromolecules*, **2002**, 35, 7791-7803	5.5	35
114	Biodegradable and pH sensitive hydrogels: synthesis by a polymer-polymer reaction. *Macromolecular Chemistry and Physics*, **1996**, 197, 965-980	2.6	35
113	Self-assembling diblock copolymers of poly[N-(2-hydroxypropyl)methacrylamide] and a beta-sheet peptide. *Macromolecular Bioscience*, **2009**, 9, 36-44	5.5	34
112	Photoregulated association of N-(2-hydroxypropyl)methacrylamide copolymers with azobenzene-containing side chains. *Macromolecules*, **1992**, 25, 5451-5456	5.5	34
111	Efficiency of high molecular weight backbone degradable HPMA copolymer-prostaglandin E1 conjugate in promotion of bone formation in ovariectomized rats. *Biomaterials*, **2013**, 34, 6528-38	15.6	33
110	Intracellular trafficking and subcellular distribution of a large array of HPMA copolymers. *Biomacromolecules*, **2009**, 10, 1704-14	6.9	33
109	In vitro bioadhesion of carbohydrate-containing N-(2-hydroxypropyl) methacrylamide copolymers to the GI tract of guinea pigs. *International Journal of Pharmaceutics*, **1992**, 87, 105-116	6.5	33
108	Soluble, crosslinked N-(2-hydroxypropyl)methacrylamide copolymers as potential drug carriers. *Journal of Controlled Release*, **1987**, 4, 253-264	11.7	33
107	Amplification of CD20 Cross-Linking in Rituximab-Resistant B-Lymphoma Cells Enhances Apoptosis Induction by Drug-Free Macromolecular Therapeutics. *ACS Nano*, **2018**, 12, 3658-3670	16.7	32
106	Synthesis and biological evaluation of disulfide-linked HPMA copolymer-mesochlorin e6 conjugates. *Macromolecular Bioscience*, **2008**, 8, 375-83	5.5	32
105	Self-assembled hydrogels from poly[N-(2-hydroxypropyl)methacrylamide] grafted with beta-sheet peptides. *Biomacromolecules*, **2009**, 10, 2319-27	6.9	31
104	Biodistribution and pharmacokinetics of colon-specific HPMA copolymer--9-aminocamptothecin conjugate in mice. *Journal of Controlled Release*, **2007**, 117, 179-85	11.7	30
103	Synthesis and characterization of poly(ε-caprolactone)-block-poly[N-(2-hydroxypropyl)methacrylamide] micelles for drug delivery. *Macromolecular Bioscience*, **2011**, 11, 1041-51	5.5	29
102	Identification of CD21-binding peptides with phage display and investigation of binding properties of HPMA copolymer-peptide conjugates. *Bioconjugate Chemistry*, **2006**, 17, 514-23	6.3	29

101	Prolonged blood circulation in rats of nanospheres surface-modified with semitelechelic poly[N-(2-hydroxypropyl)methacrylamide]. *Pharmaceutical Research*, **1995**, 12, 663-8	4.5	29
100	Photoregulated Association of Water-Soluble Copolymers with Spirobenzopyran-Containing Side Chains. *Macromolecules*, **1997**, 30, 5553-5556	5.5	28
99	Chronic exposure of human ovarian carcinoma cells to free or HPMA copolymer-bound mesochlorin e6 does not induce P-glycoprotein-mediated multidrug resistance. *Biomaterials*, **2000**, 21, 2203-10	15.6	28
98	Time- and concentration-dependent apoptosis and necrosis induced by free and HPMA copolymer-bound doxorubicin in human ovarian carcinoma cells. *Journal of Controlled Release*, **2000**, 69, 185-96	11.7	28
97	Hybrid polymeric hydrogels via peptide nucleic acid (PNA)/DNA complexation. *Journal of Controlled Release*, **2015**, 220, 608-16	11.7	27
96	Influence of the structure of drug moieties on the in vitro efficacy of HPMA copolymer-geldanamycin derivative conjugates. *Pharmaceutical Research*, **2002**, 19, 115-23	4.5	27
95	Correlation of subcellular compartmentalization of HPMA copolymer-Mce6 conjugates with chemotherapeutic activity in human ovarian carcinoma cells. *Pharmaceutical Research*, **2003**, 20, 728-37	4.5	27
94	Intracellularly biorecognizable derivatives of 5-fluorouracil. Implications for site-specific delivery in the human condition. *Biochemical Pharmacology*, **1996**, 52, 957-62	6	27
93	Multimodality imaging of coiled-coil mediated self-assembly in a "drug-free" therapeutic system. *Advanced Healthcare Materials*, **2015**, 4, 1054-65	10.1	26
92	Drug-Free Macromolecular Therapeutics Induce Apoptosis via Calcium Influx and Mitochondrial Signaling Pathway. *Macromolecular Bioscience*, **2018**, 18, 1700196	5.5	26
91	Self-association properties of HPMA copolymers containing an amphipathic heptapeptide. *Journal of Drug Targeting*, **2007**, 15, 465-74	5.4	25
90	Two-step fluorescence screening of CD21-binding peptides with one-bead one-compound library and investigation of binding properties of N-(2-hydroxypropyl)methacrylamide copolymer-peptide conjugates. *Biomacromolecules*, **2006**, 7, 3037-46	6.9	25
89	Antisense oligonucleotides delivered to the lysosome escape and actively inhibit the hepatitis B virus. *Bioconjugate Chemistry*, **2002**, 13, 975-84	6.3	25
88	Synthesis of bioadhesive lectin-HPMA copolymer-cyclosporin conjugates. *Bioconjugate Chemistry*, **2000**, 11, 3-7	6.3	25
87	De novo design of biomedical polymers: hybrids from synthetic macromolecules and genetically engineered protein domains. *Macromolecular Symposia*, **2001**, 174, 31-42	0.8	25
86	Polymer nanomedicines. *Advanced Drug Delivery Reviews*, **2020**, 156, 40-64	18.5	25
85	Biorecognition: A key to drug-free macromolecular therapeutics. *Biomaterials*, **2019**, 190-191, 11-23	15.6	25
84	Backbone Degradable N-(2-Hydroxypropyl)methacrylamide Copolymer Conjugates with Gemcitabine and Paclitaxel: Impact of Molecular Weight on Activity toward Human Ovarian Carcinoma Xenografts. *Molecular Pharmaceutics*, **2017**, 14, 1384-1394	5.6	24

83	Super-Resolution Imaging and Quantitative Analysis of Membrane Protein/Lipid Raft Clustering Mediated by Cell-Surface Self-Assembly of Hybrid Nanoconjugates. *ChemBioChem*, **2015**, 16, 1725-9	3.8	24
82	Drug-Free Macromolecular Therapeutics: Induction of Apoptosis by Coiled-Coil-Mediated Cross-Linking of Antigens on the Cell Surface. *Angewandte Chemie*, **2010**, 122, 1493-1497	3.6	24
81	Degradability of hydrogels containing azoaromatic crosslinks. *Macromolecular Chemistry and Physics*, **1995**, 196, 2183-2202	2.6	24
80	Polymer-bound derivatives of sarcolysin and their antitumour activity against mouse and human leukaemia in vitro. *Die Makromolekulare Chemie*, **1987**, 188, 2497-2509		24
79	Combination therapy of prostate cancer with HPMA copolymer conjugates containing PI3K/mTOR inhibitor and docetaxel. *European Journal of Pharmaceutics and Biopharmaceutics*, **2015**, 89, 107-15	5.7	23
78	Improved synthesis and evaluation of 17-substituted aminoalkylgeldanamycin derivatives applicable to drug delivery systems. *Bioorganic and Medicinal Chemistry Letters*, **2001**, 11, 2089-91	2.9	23
77	Targetable photoactivalable drugs. 3. In vitro efficacy of polymer bound chlorin e6 toward human hepatocarcinoma cell line (PLC/PRF/5) targeted with galactosamine and to mouse splenocytes targeted with anti-Thy 1.2 antibodies. *Journal of Controlled Release*, **1993**, 25, 71-87	11.7	23
76	Targetable polymeric anticancer drugs. Temporal control of drug activity. *Annals of the New York Academy of Sciences*, **1991**, 618, 335-44	6.5	23
75	BIODEGRADATION OF POLYMERS FOR BIOMEDICAL USE **1982**, 305-320		23
74	Release of prostaglandin E(1) from N-(2-hydroxypropyl)methacrylamide copolymer conjugates by bone cells. *Macromolecular Bioscience*, **2008**, 8, 599-605	5.5	22
73	A new construct of antibody-drug conjugates for treatment of B-cell non-Hodgkin's lymphomas. *European Journal of Pharmaceutical Sciences*, **2017**, 103, 36-46	5.1	21
72	Spacer length impacts the efficacy of targeted docetaxel conjugates in prostate-specific membrane antigen expressing prostate cancer. *Journal of Drug Targeting*, **2013**, 21, 968-80	5.4	21
71	Stability in plasmas of various species of HPMA copolymer-PGE1 conjugates. *Pharmaceutical Research*, **2007**, 24, 2270-80	4.5	21
70	HPMA copolymer-bound doxorubicin induces apoptosis in human ovarian carcinoma cells by a Fas-independent pathway. *Molecular Pharmaceutics*, **2004**, 1, 174-82	5.6	21
69	Methods of targeting N-(2-hydroxypropyl) methacrylamide copolymers to particular cell types. *Die Makromolekulare Chemie*, **1985**, 9, 3-12		21
68	Drug-free macromolecular therapeutics induce apoptosis of patient chronic lymphocytic leukemia cells. *Drug Delivery and Translational Research*, **2014**, 4, 389-94	6.2	20
67	Immunogenicity of coiled-coil based drug-free macromolecular therapeutics. *Biomaterials*, **2014**, 35, 5886-96	8.6	20
66	Novel Synthesis of HPMA Copolymers Containing Peptide Grafts and Their Self-Assembly Into Hybrid Hydrogels. *Macromolecular Chemistry and Physics*, **2008**, 209, 467-475	2.6	20

65	Mechanisms of cytotoxicity in human ovarian carcinoma cells exposed to free Mce6 or HPMA copolymer-Mce6 conjugates. *Photochemistry and Photobiology*, **2003**, 77, 645-52	3.6	20
64	Biodistribution of Fracture-Targeted GSK3 Inhibitor-Loaded Micelles for Improved Fracture Healing. *Biomacromolecules*, **2015**, 16, 3145-53	6.9	19
63	Biorecognition of HPMA copolymer-adriamycin conjugates by lymphocytes mediated by synthetic receptor binding epitopes. *Pharmaceutical Research*, **1999**, 16, 1010-9	4.5	19
62	Biorecognition of sugar containing N-(2-hydroxypropyl)methacrylamide copolymers by immobilized lectin. *Macromolecular Chemistry and Physics*, **1997**, 198, 1165-1180	2.6	18
61	Polymers containing enzymatically degradable bonds, 9. Chymotrypsm catalyzed hydrolysis of a p-nitroanilide drug model, p bound via oligopeptides onto poly(vinylpyrrolidone-co-maleic anhydride). *Die Makromolekulare Chemie*, **1984**, 185, 231-237		18
60	Water Soluble Polymers for Medicine. *British Polymer Journal*, **1978**, 10, 111-114		17
59	Lectin-HPMA copolymer conjugates: potential oral drug carriers for targeting diseased tissues. *Macromolecular Chemistry and Physics*, **1998**, 199, 2601-2608	2.6	16
58	The Influence of Fusion Sequences on the Thermal Stabilities of Coiled-Coil Proteins. *Macromolecular Bioscience*, **2002**, 2, 395-401	5.5	16
57	Enzymatic Degradation of Poly(ethylene glycol) Modified Dextrans. *Journal of Bioactive and Compatible Polymers*, **1994**, 9, 388-410	2	16
56	Multivalent HER2-binding polymer conjugates facilitate rapid endocytosis and enhance intracellular drug delivery. *Journal of Controlled Release*, **2020**, 319, 285-299	11.7	16
55	Drug-free macromolecular therapeutics: Impact of structure on induction of apoptosis in Raji B cells. *Journal of Controlled Release*, **2017**, 263, 139-150	11.7	15
54	POLYMERIC BIOMATERIALS AND NANOMEDICINES. *Journal of Drug Delivery Science and Technology*, **2015**, 30, 318-330	4.5	15
53	HPMA Copolymer CXCR4 Antagonist Conjugates Substantially Inhibited the Migration of Prostate Cancer Cells. *ACS Macro Letters*, **2014**, 3, 1240-1243	6.6	15
52	Intelligente Biomaterialien durch Selbstorganisation von Hybridhydrogelen. *Angewandte Chemie*, **2012**, 124, 7512-7535	3.6	15
51	Coiled-Coil Hydrogels. Effect of Grafted Copolymer Composition and Cyclization on Gelation. *Macromolecules*, **2009**, 42, 2265-2274	5.5	15
50	The cytoplasmic escape and nuclear accumulation of endocytosed and microinjected HPMA copolymers and a basic kinetic study in Hep G2 cells. *AAPS PharmSci*, **2001**, 3, E32		15
49	Activation of poly[N-(2-hydroxypropyl)methacrylamide] for the binding of bioactive molecules, 1. Activation with 4-nitrophenyl chloroformate. *Die Makromolekulare Chemie*, **1983**, 184, 1339-1344		15
48	Preparation of polymer-modified enzymes of prolonged circulation times. Poly[N-(2-hydroxypropyl) methacrylamide]-bound acetylcholinesterase. *Die Makromolekulare Chemie*, **1985**, 9, 35-42		15

47	Broadening and Enhancing Functions of Antibodies by Self-Assembling Multimerization at Cell Surface. *ACS Nano*, **2019**, 13, 11422-11432	16.7	14
46	Targeting of multidrug-resistant human ovarian carcinoma cells with anti-P-glycoprotein antibody conjugates. *Macromolecular Bioscience*, **2012**, 12, 502-14	5.5	14
45	Stimuli-responsive properties of peptide-based copolymers studied via directional growth of self-assembled patterns on solid substrate. *Biomacromolecules*, **2009**, 10, 1955-61	6.9	14
44	Pharmacokinetic modeling of absorption behavior of 9-aminocamptothecin (9-AC) released from colon-specific HPMA copolymer-9-AC conjugate in rats. *Pharmaceutical Research*, **2008**, 25, 218-26	4.5	14
43	Swelling pressure induced phase-volume transition in hybrid biopolymer gels caused by unfolding of folded crosslinks: a model. *Biomacromolecules*, **2003**, 4, 1818-26	6.9	14
42	N-(2-Hydroxypropyl)methacrylamide Copolymer-9-Aminocamptothecin Conjugate: Colon-Specific Drug Delivery in Rats. *Journal of Bioactive and Compatible Polymers*, **2002**, 17, 305-319	2	14
41	Drug-free albumin-triggered sensitization of cancer cells to anticancer drugs. *Journal of Controlled Release*, **2019**, 293, 84-93	11.7	14
40	FRET Imaging of Enzyme-Responsive HPMA Copolymer Conjugate. *Macromolecular Bioscience*, **2017** , 17, 1600125	5.5	13
39	Synthesis and activity of tumor-homing peptide iRGD and histone deacetylase inhibitor valproic acid conjugate. *Bioorganic and Medicinal Chemistry Letters*, **2014**, 24, 1928-33	2.9	12
38	Antitumor efficacy of colon-specific HPMA copolymer/9-aminocamptothecin conjugates in mice bearing human-colon carcinoma xenografts. *Macromolecular Bioscience*, **2009**, 9, 1135-42	5.5	12
37	Presentation of epitopes on genetically engineered peptides and selection of lymphoma-targeting moieties based on epitope biorecognition. *Biomacromolecules*, **2002**, 3, 421-31	6.9	12
36	Mechanisms of anticancer action of HPMA copolymer-bound doxorubicin. *Macromolecular Symposia* , **2001**, 172, 35-48	0.8	12
35	Association of a Substituted Zinc(II) Phthalocyanine-N- (2-Hydroxypropyl)methacrylamide Copolymer Conjugate. *Macromolecules*, **1995**, 28, 8375-8380	5.5	12
34	Synthesis and Photoproperties of a Substituted Zinc(II) Phthalocyanine-N-(2-hydroxypropyl)methacrylamide Copolymer Conjugate. *Collection of Czechoslovak Chemical Communications*, **1993**, 58, 2321-2336		12
33	Degradation and aggregation of human calcitonin in vitro. *Pharmaceutical Research*, **1999**, 16, 359-67	4.5	11
32	Human Serum Albumin-Based Drug-Free Macromolecular Therapeutics: Apoptosis Induction by Coiled-Coil-Mediated Cross-Linking of CD20 Antigens on Lymphoma B Cell Surface. *Macromolecular Bioscience*, **2018**, 18, e1800224	5.5	11
31	Indium-based and iodine-based labeling of HPMA copolymer-epirubicin conjugates: Impact of structure on the in vivo fate. *Journal of Controlled Release*, **2016**, 235, 306-318	11.7	10
30	Prostate-cancer-targeted N-(2-hydroxypropyl)methacrylamide copolymer/docetaxel conjugates. *Macromolecular Bioscience*, **2012**, 12, 412-22	5.5	10

29	Biorecognizable Polymers: Design, Structure, and Bioactivity. *Journal of Macromolecular Science - Pure and Applied Chemistry*, **1997**, 34, 2103-2117	2.2	10
28	Cleavage of oligopeptide p-nitroanilides attached to N-(2-hydroxypropyl)methacrylamide copolymers by guinea pig intestinal enzymes. *Die Makromolekulare Chemie*, **1992**, 193, 2605-2619		10
27	Optically controlled ligand delivery, 1. Synthesis of water-soluble copolymers containing photocleavable bonds. *Die Makromolekulare Chemie*, **1989**, 190, 69-82		10
26	Osmotic opening of the blood-brain barrier permeability to N-(2-hydroxypropyl)methacrylamide copolymers. Effect of polymer -Mw charge and hydrophobicity. *Journal of Controlled Release*, **1989**, 10, 27-35	11.7	10
25	A convenient model system for the study of the influence of water-soluble polymer carrier on the interaction between proteins. *Die Makromolekulare Chemie Rapid Communications*, **1982**, 3, 11-15		10
24	Drug-free macromolecular therapeutics induce apoptosis in cells isolated from patients with B cell malignancies with enhanced apoptosis induction by pretreatment with gemcitabine. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2019**, 16, 217-225	6	10
23	Healing efficacy of fracture-targeted GSK3 inhibitor-loaded micelles for improved fracture repair. *Nanomedicine*, **2017**, 12, 185-193	5.6	9
22	Tracking and quantifying polymer therapeutic distribution on a cellular level using 3D dSTORM. *Journal of Controlled Release*, **2016**, 231, 50-9	11.7	9
21	Activation of poly[N-(2-hydroxypropyl)methacrylamide] for the binding of bioactive molecules, 2. Activation with cyanogen bromide. *Die Makromolekulare Chemie*, **1983**, 184, 1345-1353		9
20	Drug targeting to lysosomes. *Biochemical Society Transactions*, **1984**, 12, 913-5	5.1	9
19	Targeting of soluble cross-linked N-(2-hydroxypropyl)methacrylamide copolymers in vivo. A potential drug delivery system. *Biochemical Society Transactions*, **1984**, 12, 1064-1065	5.1	9
18	N-(2-Hydroxypropyl)methacrylamide Copolymer-Drug Conjugates for Combination Chemotherapy of Acute Myeloid Leukemia. *Macromolecular Bioscience*, **2016**, 16, 121-8	5.5	9
17	Multifunctional Water-Soluble Polymers for Drug Delivery. *Fundamental Biomedical Technologies*, **2008**, 81-142		8
16	A model for swelling changes in a covalently crosslinked gel caused by unfolding of folded domains. *Polymer Bulletin*, **2001**, 47, 351-358	2.4	7
15	Drug-free macromolecular therapeutics exhibit amplified apoptosis in G2/M phase arrested cells. *Journal of Drug Targeting*, **2019**, 27, 566-572	5.4	6
14	Photoassociation of water-soluble copolymers containing photochromic spirobenzopyran moieties. *Polymers for Advanced Technologies*, **1998**, 9, 641-648	3.2	5
13	Exploration and Evaluation of Therapeutic Efficacy of Drug-Free Macromolecular Therapeutics in Collagen-Induced Rheumatoid Arthritis Mouse Model. *Macromolecular Bioscience*, **2020**, 20, e1900445	5.5	4
12	Smart Polymer-Based Nanomedicines **2016**, 373-413		4

List of Publications

11	Dendronized polymer conjugates with amplified immunogenic cell death for oncolytic immunotherapy. *Journal of Controlled Release*, **2021**, 329, 1129-1138	11.7	4
10	Design of Polymer-Drug Conjugates **2011**, 483-512		2
9	HPMA copolymer-modified avidin: immune response. *Journal of Biomaterials Science, Polymer Edition*, **2000**, 11, 1-12	3.5	2
8	Adsorption and activation of zymogens at solid-liquid interfaces. I. Chymotrypsinogen on alkylamino modified silica derivatives. *Journal of Biomedical Materials Research Part B*, **1994**, 28, 247-57		2
7	Crosslinking of CD38 Receptors Triggers Apoptosis of Malignant B Cells. *Molecules*, **2021**, 26,	4.8	2
6	Cancer Stem Cells: Potential Target For Anti-Cancer Nanomedicines. *ACS Symposium Series*, **2013**, 127-149	3.4	1
5	Nanomedicines in B cell-targeting therapies. *Acta Biomaterialia*, **2021**, 137, 1-1	10.8	1
4	Combination treatment with immunogenic and anti-PD-L1 polymer-drug conjugates of advanced tumors in a transgenic MMTV-PyMT mouse model of breast cancer. *Journal of Controlled Release*, **2021**, 332, 652-659	11.7	1
3	Backbone Degradable and Coiled-Coil Based Macromolecular Therapeutics **2014**, 1-28		
2	Design and synthesis of FRET-trackable HPMA-based biodegradable conjugates for drug/gene delivery. *Journal of Controlled Release*, **2015**, 213, e58	11.7	
1	Interview with Professor Jind□ch Kope□ek. *Nanomedicine*, **2014**, 9, 577-9	5.6	