Miroslava Trchova

List of Publications by Citations

288 papers	12,958 citations	59 h-index	102 g-index
291 ext. papers	13,891 ext. citations	4 avg, IF	6.51 L-index

#	Paper	IF	Citations
288	Polyaniline nanostructures and the role of aniline oligomers in their formation. *Progress in Polymer Science*, **2010**, 35, 1420-1481	29.6	606
287	Synthesis and structural study of polypyrroles prepared in the presence of surfactants. *Synthetic Metals*, **2003**, 138, 447-455	3.6	511
286	Polyaniline: The infrared spectroscopy of conducting polymer nanotubes (IUPAC Technical Report). *Pure and Applied Chemistry*, **2011**, 83, 1803-1817	2.1	414
285	Evolution of polyaniline nanotubes: the oxidation of aniline in water. *Journal of Physical Chemistry B* , **2006**, 110, 9461-8	3.4	391
284	Oxidation of Aniline: Polyaniline Granules, Nanotubes, and Oligoaniline Microspheres. *Macromolecules*, **2008**, 41, 3530-3536	5.5	324
283	Polyaniline and polypyrrole: A comparative study of the preparation. *European Polymer Journal*, **2007**, 43, 2331-2341	5.2	313
282	FTIR spectroscopic and conductivity study of the thermal degradation of polyaniline films. *Polymer Degradation and Stability*, **2004**, 86, 179-185	4.7	294
281	The genesis of polyaniline nanotubes. *Polymer*, **2006**, 47, 8253-8262	3.9	276
280	Multi-wall carbon nanotubes coated with polyaniline. *Polymer*, **2006**, 47, 5715-5723	3.9	267
279	Poly(L-lysine)-modified iron oxide nanoparticles for stem cell labeling. *Bioconjugate Chemistry*, **2008** , 19, 740-50	6.3	254
278	Polyaniline nanotubes: conditions of formation. *Polymer International*, **2006**, 55, 31-39	3.3	253
277	Raman spectroscopy of polyaniline and oligoaniline thin films. *Electrochimica Acta*, **2014**, 122, 28-38	6.7	197
276	The chemical oxidative polymerization of aniline in water: Raman spectroscopy. *Journal of Raman Spectroscopy*, **2008**, 39, 1375-1387	2.3	190
275	Thermal degradation of polyaniline films prepared in solutions of strong and weak acids and in water FTIR and Raman spectroscopic studies. *Polymer Degradation and Stability*, **2008**, 93, 2147-2157	4.7	186
274	Polyaniline and polypyrrole prepared in the presence of surfactants: a comparative conductivity study. *Polymer*, **2003**, 44, 1353-1358	3.9	185
273	The conversion of polyaniline nanotubes to nitrogen-containing carbon nanotubes and their comparison with multi-walled carbon nanotubes. *Polymer Degradation and Stability*, **2009**, 94, 929-938	4.7	151
272	The oxidation of aniline with silver nitrate to polyaniline silver composites. *Polymer*, **2009**, 50, 50-56	3.9	146

271	Polyaniline prepared in the presence of various acids: a conductivity study. *Polymer International*, **2004**, 53, 294-300	3.3	142
270	Solid-State Protonation and Electrical Conductivity of Polyaniline. *Macromolecules*, **1998**, 31, 2218-2222	5.5	124
269	Aniline oligomers versus polyaniline. *Polymer International*, **2012**, 61, 240-251	3.3	116
268	Conducting carbonized polyaniline nanotubes. *Nanotechnology*, **2009**, 20, 245601	3.4	116
267	D-mannose-modified iron oxide nanoparticles for stem cell labeling. *Bioconjugate Chemistry*, **2007**, 18, 635-44	6.3	114
266	Structural and conductivity changes during the pyrolysis of polyaniline base. *Polymer Degradation and Stability*, **2006**, 91, 114-121	4.7	112
265	Spectroscopy of thin polyaniline films deposited during chemical oxidation of aniline. *Chemical Papers*, **2012**, 66,	1.9	111
264	The stability of polyaniline in strongly alkaline or acidic aqueous media. *Polymer Degradation and Stability*, **2008**, 93, 592-600	4.7	108
263	Polypyrrole nanotubes: mechanism of formation. *RSC Advances*, **2014**, 4, 1551-1558	3.7	107
262	The carbonization of granular polyaniline to produce nitrogen-containing carbon. *Synthetic Metals*, **2011**, 161, 1122-1129	3.6	107
261	Antimicrobial activity and cytotoxicity of cotton fabric coated with conducting polymers, polyaniline or polypyrrole, and with deposited silver nanoparticles. *Applied Surface Science*, **2017**, 396, 169-176	6.7	105
260	Polypyrrole salts and bases: superior conductivity of nanotubes and their stability towards the loss of conductivity by deprotonation. *RSC Advances*, **2016**, 6, 88382-88391	3.7	102
259	In-situ polymerized polyaniline films. *Synthetic Metals*, **2002**, 129, 29-37	3.6	98
258	Effect of polymerization conditions on the properties of polypyrrole prepared in the presence of sodium bis(2-ethylhexyl) sulfosuccinate. *Synthetic Metals*, **2004**, 143, 153-161	3.6	96
257	In-situ polymerized polyaniline films. Preparation in solutions of hydrochloric, sulfuric, or phosphoric acid. *Thin Solid Films*, **2006**, 515, 1640-1646	2.2	93
256	Polyaniline complex with fullerene C60. *European Polymer Journal*, **2000**, 36, 2321-2326	5.2	92
255	Fluorescent magnetic nanoparticles for biomedical applications. *Journal of Materials Chemistry*, **2011**, 21, 7630		90
254	Investigations of the hydrophobic and hydrophilic interactions in polymer–water systems by ATR FTIR and Raman spectroscopy. *Vibrational Spectroscopy*, **2006**, 42, 278-283	2.1	90

253	Control of polyaniline conductivity and contact angles by partial protonation. *Polymer International*, **2008**, 57, 66-69	3.3	88
252	Brominated Polyaniline. *Chemistry of Materials*, **2001**, 13, 4083-4086	9.6	88
251	MNDO-PM3 Study of the Early Stages of the Chemical Oxidative Polymerization of Aniline. *Collection of Czechoslovak Chemical Communications*, **2006**, 71, 1407-1426		87
250	Synthesis and characterization of conducting polyaniline 5-sulfosalicylate nanotubes. *Nanotechnology*, **2008**, 19, 135606	3.4	86
249	Theoretical study of the oxidative polymerization of aniline with peroxydisulfate: Tetramer formation. *International Journal of Quantum Chemistry*, **2008**, 108, 318-333	2.1	85
248	Infrared spectroscopic study of solid-state protonation and oxidation of polyaniline. *Synthetic Metals*, **1999**, 101, 840-841	3.6	83
247	Synthesis, Characterization, and Electrochemistry of Nanotubular Polypyrrole and Polypyrrole-Derived Carbon Nanotubes. *Journal of Physical Chemistry C*, **2014**, 118, 14770-14784	3.8	81
246	Surface Polymerization of Aniline on Silica Gel. *Langmuir*, **2003**, 19, 3013-3018	4	81
245	Chemical oxidative polymerization of safranines. *Journal of Physical Chemistry B*, **2007**, 111, 2188-99	3.4	79
244	Polypyrrole nanotubes: The tuning of morphology and conductivity. *Polymer*, **2017**, 113, 247-258	3.9	76
243	Polymerization of aniline on polyaniline membranes. *Journal of Physical Chemistry B*, **2007**, 111, 2440-8	3.4	76
242	Chemical oxidative polymerization of anilinium sulfate versus aniline: Theory and experiment. *Synthetic Metals*, **2008**, 158, 200-211	3.6	75
241	The role of water in structural changes of poly(N-isopropylacrylamide) and poly(N-isopropylmethacrylamide) studied by FTIR, Raman spectroscopy and quantum chemical calculations. *Vibrational Spectroscopy*, **2009**, 51, 44-51	2.1	73
240	Properties of amine-containing coatings prepared by plasma polymerization. *Journal of Applied Polymer Science*, **2004**, 92, 979-990	2.9	71
239	Plasma polymer films rf sputtered from PTFE under various argon pressures. *Vacuum*, **2005**, 77, 131-137	3.7	71
238	Conducting polypyrrole nanotubes: a review. *Chemical Papers*, **2018**, 72, 1563-1595	1.9	70
237	Poly(N,N-dimethylacrylamide)-coated maghemite nanoparticles for stem cell labeling. *Bioconjugate Chemistry*, **2009**, 20, 283-94	6.3	68
236	Polyaniline prepared in solutions of phosphoric acid: Powders, thin films, and colloidal dispersions. *Polymer*, **2006**, 47, 42-48	3.9	68

235	Poly(aniline-co-pyrrole): powders, films, and colloids. Thermophoretic mobility of colloidal particles. *Synthetic Metals*, **2004**, 146, 29-36	3.6	68
234	Polypyrrole prepared in the presence of methyl orange and ethyl orange: nanotubes versus globules in conductivity enhancement. *Journal of Materials Chemistry C*, **2017**, 5, 4236-4245	7.1	65
233	Mixed electron and proton conductivity of polyaniline films in aqueous solutions of acids: beyond the 1000 S cm□ limit. *Polymer International*, **2009**, 58, 872-879	3.3	63
232	In-situ polymerized polyaniline films 6. FTIR spectroscopic study of aniline polymerisation. *Synthetic Metals*, **2005**, 154, 1-4	3.6	63
231	Chemical oxidative polymerization of aminodiphenylamines. *Journal of Physical Chemistry B*, **2008**, 112, 6976-87	3.4	62
230	Flame-retardant effect of polyaniline coating deposited on cellulose fibers. *Journal of Applied Polymer Science*, **2005**, 98, 2347-2354	2.9	60
229	Conductivity ageing in temperature-cycled polyaniline. *Polymer Degradation and Stability*, **2002**, 78, 393-401	4.7	58
228	Conformational transition in polyaniline films □spectroscopic and conductivity studies of ageing. *Polymer Degradation and Stability*, **2008**, 93, 428-435	4.7	57
227	The influence of pulse parameters on film composition during pulsed plasma polymerization of diaminocyclohexane. *Surface and Coatings Technology*, **2003**, 174-175, 863-866	4.4	55
226	Catalytic activity of polypyrrole nanotubes decorated with noble-metal nanoparticles and their conversion to carbonized analogues. *Synthetic Metals*, **2016**, 214, 14-22	3.6	53
225	Polyaniline□silver composites prepared by the oxidation of aniline with silver nitrate in solutions of sulfonic acids. *Electrochimica Acta*, **2011**, 56, 3580-3585	6.7	52
224	Polyaniline-coated cellulose fibers decorated with silver nanoparticles. *Chemical Papers*, **2008**, 62,	1.9	52
223	Structure and stability of thin polyaniline films deposited in situ on silicon and gold during precipitation and dispersion polymerization of aniline hydrochloride. *Thin Solid Films*, **2011**, 519, 5933-5941	2.2	50
222	Polyaniline□silver composites prepared by the oxidation of aniline with mixed oxidants, silver nitrate and ammonium peroxydisulfate: The control of silver content. *Polymer*, **2011**, 52, 5947-5952	3.9	49
221	Polyaniline Cryogels Supported with Poly(vinyl alcohol): Soft and Conducting. *Macromolecules*, **2017**, 50, 972-978	5.5	48
220	Effect of different magnetic nanoparticle coatings on the efficiency of stem cell labeling. *Journal of Magnetism and Magnetic Materials*, **2009**, 321, 1539-1547	2.8	48
219	Polyaniline□silver composites prepared by the oxidation of aniline with silver nitrate in acetic acid solutions. *Polymer International*, **2010**, 59, 437-446	3.3	48
218	Oxidation of Aniline with Silver Nitrate Accelerated byp-Phenylenediamine: A New Route to Conducting Composites. *Macromolecules*, **2010**, 43, 10406-10413	5.5	46

217	NMR investigation of aniline oligomers produced in the early stages of oxidative polymerization of aniline. *Journal of Physical Chemistry B*, **2009**, 113, 6666-73	3.4	46
216	Electrorheology of aniline oligomers. *Colloid and Polymer Science*, **2013**, 291, 2079-2086	2.4	45
215	Reduction of silver nitrate by polyaniline nanotubes to produce silver-polyaniline composites. *Chemical Papers*, **2009**, 63,	1.9	44
214	Chemical synthesis of polyaniline in the presence of poly(amidosulfonic acids) with different rigidity of the polymer chain. *Polymer*, **2011**, 52, 2474-2484	3.9	44
213	Purification of a conducting polymer, polyaniline, for biomedical applications. *Synthetic Metals*, **2014**, 195, 286-293	3.6	41
212	The carbonization of thin polyaniline films. *Thin Solid Films*, **2012**, 520, 6088-6094	2.2	41
211	Oxidative stability of polyaniline. *Polymer Degradation and Stability*, **2012**, 97, 1026-1033	4.7	41
210	Flame retardancy afforded by polyaniline deposited on wood. *Journal of Applied Polymer Science*, **2007**, 103, 24-30	2.9	41
209	Synthesis and characterization of new zirconium 4-sulfophenylphosphonates. *Solid State Ionics*, **2010**, 181, 705-713	3.3	40
208	Coating of zinc ferrite particles with a conducting polymer, polyaniline. *Journal of Colloid and Interface Science*, **2006**, 298, 87-93	9.3	40
207	Determination of the Inelastic Mean Free Path of Electrons in Different Polyaniline Samples. *Langmuir*, **2000**, 16, 1415-1423	4	40
206	Polyaniline: Aniline oxidation with strong and weak oxidants under various acidity. *Materials Chemistry and Physics*, **2017**, 194, 206-218	4.4	39
205	The deposition of globular polypyrrole and polypyrrole nanotubes on cotton textile. *Applied Surface Science*, **2015**, 356, 737-741	6.7	39
204	Self-assembly of aniline oligomers. *Chemistry - an Asian Journal*, **2013**, 8, 129-37	4.5	39
203	Polypyrrole/silver composites prepared by single-step synthesis. *Synthetic Metals*, **2013**, 166, 57-62	3.6	39
202	The role of acidity profile in the nanotubular growth of polyaniline. *Chemical Papers*, **2010**, 64,	1.9	39
201	Structure of montmorillonite cointercalated with stearic acid and octadecylamine: modeling, diffraction, IR spectroscopy. *Journal of Colloid and Interface Science*, **2006**, 300, 264-9	9.3	39
200	Carbonization of aniline oligomers to electrically polarizable particles and their use in electrorheology. *Chemical Engineering Journal*, **2014**, 256, 398-406	14.7	38

199	Anticorrosion properties of inorganic pigments surface-modified with a polyaniline phosphate layer. *Progress in Organic Coatings*, **2008**, 63, 209-221	4.8	38
198	Plasma polymers prepared by RF sputtering of polyethylene. *Vacuum*, **2003**, 70, 505-509	3.7	38
197	Optimization routes for high electrical conductivity of polypyrrole nanotubes prepared in presence of methyl orange. *Synthetic Metals*, **2017**, 230, 89-96	3.6	37
196	Enhanced thermal stability of multi-walled carbon nanotubes after coating with polyaniline salt. *Polymer Degradation and Stability*, **2012**, 97, 1405-1414	4.7	36
195	Solid-state reduction of silver nitrate with polyaniline base leading to conducting materials. *ACS Applied Materials & Interfaces*, **2009**, 1, 1906-12	9.5	36
194	Polypyrrole Nanotubes and Their Carbonized Analogs: Synthesis, Characterization, Gas Sensing Properties. *Sensors*, **2016**, 16,	3.8	36
193	Detection of aniline oligomers on polyaniline-gold interface using resonance Raman scattering. *ACS Applied Materials & Interfaces*, **2014**, 6, 942-50	9.5	34
192	Novel silicon carbide/polypyrrole composites; preparation and physicochemical properties. *Materials Research Bulletin*, **2005**, 40, 749-765	5.1	34
191	The oxidative polymerization of p-phenylenediamine with silver nitrate: Toward highly conducting micro/nanostructured silver/conjugated polymer composites. *Journal of Polymer Science Part A*, **2011**, 49, 3387-3403	2.5	33
190	Monodisperse magnetic composite poly(glycidyl methacrylate)/La0.75Sr0.25MnO3 microspheres by the dispersion polymerization. *Polymer*, **2010**, 51, 3116-3122	3.9	33
189	Nanocomposites with mixed electronic and protonic conduction for electrocatalysis. *Russian Journal of Electrochemistry*, **2007**, 43, 528-536	1.2	33
188	Composite SiOx/fluorocarbon plasma polymer films prepared by r.f. magnetron sputtering of SiO2 and PTFE. *Vacuum*, **2006**, 81, 38-44	3.7	33
187	In-situ prepared polyaniline–silver composites: Single- and two-step strategies. *Electrochimica Acta*, **2014**, 122, 259-266	6.7	32
186	Polypyrrole and polyaniline prepared with cerium(IV) sulfate oxidant. *Synthetic Metals*, **2010**, 160, 701-707	3.6	32
185	The carbonization of colloidal polyaniline nanoparticles to nitrogen-containing carbon analogues. *Polymer International*, **2010**, 59, 875-878	3.3	32
184	Polymerization of aniline in ice. *Synthetic Metals*, **2008**, 158, 927-933	3.6	32
183	Characterization of glow-discharge-treated cellulose acetate membrane surfaces for single-layer enzyme electrode studies. *Journal of Applied Polymer Science*, **2001**, 81, 1341-1352	2.9	32
182	The oxidation of aniline with p-benzoquinone and its impact on the preparation of the conducting polymer, polyaniline. *Synthetic Metals*, **2014**, 192, 66-73	3.6	31

181	Conducting polyaniline montmorillonite composites. *Synthetic Metals*, **2010**, 160, 2596-2604	3.6	31
180	Composite SiOx/hydrocarbon plasma polymer films prepared by RF magnetron sputtering of SiO2 and polyethylene or polypropylene. *Vacuum*, **2006**, 81, 32-37	3.7	31
179	The reaction of polyaniline with iodine. *Polymer*, **2008**, 49, 180-185	3.9	30
178	Resonance Raman Spectroscopy of Conducting Polypyrrole Nanotubes: Disordered Surface versus Ordered Body. *Journal of Physical Chemistry A*, **2018**, 122, 9298-9306	2.8	30
177	Conducting Polymers: Polyaniline **2015**, 1-44		29
176	Oxidation of aniline in dopant-free template-free dilute reaction media. *Materials Chemistry and Physics*, **2011**, 127, 501-510	4.4	29
175	Polyamide Membranes Modified by Carbon Nanotubes: Application for Pervaporation. *Separation Science and Technology*, **2009**, 45, 35-41	2.5	29
174	Characterization of C-N thin films deposited by reactive excimer laser ablation of graphite targets in nitrogen atmosphere. *Thin Solid Films*, **1997**, 307, 54-59	2.2	29
173	Polymerization of aniline in the solutions of strong and weak acids: the evolution of infrared spectra and their interpretation using factor analysis. *Applied Spectroscopy*, **2007**, 61, 1153-62	3.1	29
172	Chemical bonding study of nanocrystalline diamond films prepared by plasma techniques. *Thin Solid Films*, **2006**, 506-507, 297-302	2.2	29
171	Protonation of Polyaniline with 3-Nitro-1,2,4-triazol-5-one. *Chemistry of Materials*, **2002**, 14, 3602-3606	9.6	29
170	Stem cell differentiation on conducting polyaniline. *RSC Advances*, **2015**, 5, 68796-68805	3.7	28
169	Electrorheology of polyaniline, carbonized polyaniline, and their core shell composites. *Materials Letters*, **2013**, 101, 90-92	3.3	28
168	The reduction of silver nitrate to metallic silver inside polyaniline nanotubes and on oligoaniline microspheres. *Synthetic Metals*, **2010**, 160, 1479-1486	3.6	28
167	Magnetic poly(glycidyl methacrylate)-based microspheres prepared by suspension polymerization in the presence of modified La0.75Sr0.25MnO3 nanoparticles. *European Polymer Journal*, **2009**, 45, 1009-1016	5.3	28
166	Polyaniline-coated silver nanowires. *Reactive and Functional Polymers*, **2010**, 70, 656-662	4.6	28
165	The material combining conducting polymer and ionic liquid: Hydrogen bonding interactions between polyaniline and imidazolium salt. *Synthetic Metals*, **2014**, 197, 168-174	3.6	27
164	Effect of oxidant on electronic transport in polypyrrole nanotubes synthesized in the presence of methyl orange. *Journal of Polymer Science, Part B: Polymer Physics*, **2015**, 53, 1147-1159	2.6	27

163	Polyaniline prepared in ethylene glycol or glycerol. *Polymer*, **2011**, 52, 1900-1907	3.9	27
162	FTIR spectroscopy of ordered polyaniline films. *Synthetic Metals*, **2003**, 135-136, 305-306	3.6	27
161	The composites of silver with globular or nanotubular polypyrrole: The control of silver content. *Synthetic Metals*, **2015**, 209, 105-111	3.6	26
160	Synthesis and characterization of new strontium 4-carboxyphenylphosphonates. *Journal of Solid State Chemistry*, **2007**, 180, 929-939	3.3	26
159	Preparation, surface chemistry, and electrical conductivity of novel silicon carbide/polypyrrole composites containing an anionic surfactant. *Polymer Engineering and Science*, **2007**, 47, 1198-1206	2.3	26
158	Structure analysis of montmorillonite intercalated with rhodamine B: modeling and experiment. *Journal of Molecular Modeling*, **2003**, 9, 39-46	2	26
157	Intercalation of Water into Anhydrous Vanadyl Phosphate Studied by the Infrared and Raman Spectroscopies. *Journal of Solid State Chemistry*, **1999**, 148, 197-204	3.3	26
156	Cotton Fabric Coated with Conducting Polymers and its Application in Monitoring of Carnivorous Plant Response. *Sensors*, **2016**, 16,	3.8	26
155	Towards conducting inks: Polypyrrole□silver colloids. *Electrochimica Acta*, **2014**, 122, 296-302	6.7	25
154	New strontium phenylphosphonate: synthesis and characterization. *Solid State Sciences*, **2006**, 8, 1380-1385	3.4	25
153	Synergistic conductivity increase in polypyrrole/molybdenum disulfide composite. *Polymer*, **2018**, 150, 130-137	3.9	25
152	Acid Blue dyes in polypyrrole synthesis: The control of polymer morphology at nanoscale in the promotion of high conductivity and the reduction of cytotoxicity. *Synthetic Metals*, **2018**, 237, 40-49	3.6	24
151	Colloids of polypyrrole nanotubes/nanorods: A promising conducting ink. *Synthetic Metals*, **2016**, 221, 67-74	3.6	24
150	Solid-state oxidation of aniline hydrochloride with various oxidants. *Synthetic Metals*, **2011**, 161, 1353-1360	3.6	24
149	Magnetic poly(N-propargylacrylamide) microspheres: Preparation by precipitation polymerization and use in model click reactions. *Journal of Polymer Science Part A*, **2011**, 49, 4820-4829	2.5	24
148	Structure and Pervaporation Properties of Poly(phenylene-iso-phthalamide) Membranes Modified by Fullerene C60. *Macromolecular Materials and Engineering*, **2009**, 294, 432-440	3.9	24
147	The polymerization of aniline at a solution□gelatin gel interface. *European Polymer Journal*, **2009**, 45, 668-673	5.2	24
146	Rf magnetron sputtering of polypropylene. *Vacuum*, **2004**, 75, 207-215	3.7	24

145	Characterization of carbon nitride films prepared by laser reactive ablation deposition. *Journal of Electron Spectroscopy and Related Phenomena*, **1995**, 76, 747-752	1.7	24
144	Cationic dyes as morphology-guiding agents for one-dimensional polypyrrole with improved conductivity. *Polymer*, **2019**, 174, 11-17	3.9	23
143	1H NMR and IR study of temperature-induced phase transition of negatively charged poly(N-isopropylmethacrylamide-co-sodium methacrylate) copolymers in aqueous solutions. *European Polymer Journal*, **2007**, 43, 5001-5009	5.2	23
142	CNx films created by combined laser deposition and r.f. discharge: XPS, FTIR and Raman analysis. *Thin Solid Films*, **2000**, 366, 69-76	2.2	23
141	Polyaniline/polybenzimidazole blends: Characterisation of its physico-chemical properties and gas separation behaviour. *European Polymer Journal*, **2016**, 77, 98-113	5.2	22
140	Reprotonated polyanilines: The stability of conductivity at elevated temperature. *Polymer Degradation and Stability*, **2014**, 102, 67-73	4.7	22
139	Dye-stimulated control of conducting polypyrrole morphology. *RSC Advances*, **2017**, 7, 51495-51505	3.7	21
138	Electrochemical oxidative polymerization of sodium 4-amino-3-hydroxynaphthalene-1-sulfonate and structural characterization of polymeric products. *Reactive and Functional Polymers*, **2006**, 66, 1670-1683	4.6	21
137	Thermally treated polyaniline/polybenzimidazole blend membranes: Structural changes and gas transport properties. *Journal of Membrane Science*, **2017**, 537, 315-322	9.6	20
136	Synthesis and characterization of polyaniline/BEA zeolite composites and their application in nicosulfuron adsorption. *Microporous and Mesoporous Materials*, **2019**, 287, 234-245	5.3	20
135	Monodisperse macroporous poly(glycidyl methacrylate) microspheres coated with silica: Design, preparation and characterization. *Reactive and Functional Polymers*, **2014**, 77, 11-17	4.6	20
134	Transformation of Oligoaniline Microspheres to Platelike Nitrogen-Containing Carbon. *Journal of Physical Chemistry C*, **2013**, 117, 2289-2299	3.8	20
133	The preparation of conducting polyaniline–silver and poly(p-phenylenediamine)–silver nanocomposites in liquid and frozen reaction mixtures. *Journal of Solid State Electrochemistry*, **2011**, 15, 2361-2368	2.6	20
132	Properties and morphology of polypyrrole containing a surfactant. *Synthetic Metals*, **2003**, 135-136, 437-438	3.9	19
131	Phosphorus and nitrogen-containing carbons obtained by the carbonization of conducting polyaniline complex with phosphites. *Electrochimica Acta*, **2017**, 246, 443-450	6.7	18
130	Effect of crosslinking on the properties of composites based on LDPE and conducting organic filler. *European Polymer Journal*, **2006**, 42, 2379-2388	5.2	18
129	Molybdenum and tungsten disulfides surface-modified with a conducting polymer, polyaniline, for application in electrorheology. *Reactive and Functional Polymers*, **2017**, 120, 30-37	4.6	17
128	The ageing of polypyrrole nanotubes synthesized with methyl orange. *European Polymer Journal*, **2017**, 96, 176-189	5.2	17

127	Microwave synthesis: An alternative approach to synthesize conducting end-capped polymers. *Polymer*, **2011**, 52, 33-39	3.9	17
126	3,5-Dinitrosalicylic acid-assisted synthesis of self-assembled polyaniline nanorods. *Materials Letters*, **2010**, 64, 2337-2340	3.3	17
125	Thermal and structural stability of composite systems based on polyaniline deposited on porous polyethylene films. *Polymer Degradation and Stability*, **2006**, 91, 2786-2792	4.7	17
124	Synthesis and Characterization of Vanadyl Phosphate Intercalated with Dioxane, Trioxane, and 18-Crown-6. *Chemistry of Materials*, **2002**, 14, 2788-2795	9.6	17
123	Blood coagulation and platelet adhesion on polyaniline films. *Colloids and Surfaces B: Biointerfaces*, **2015**, 133, 278-85	6	16
122	Synchrotron X-ray scattering reveals early-stage crystallinity during the self-assembly of polyaniline nanotubes with rectangular cross-sections. *Synthetic Metals*, **2012**, 161, 2739-2742	3.6	16
121	Water/Ethanol Displacement Reactions in Vanadyl Phosphate. *European Journal of Inorganic Chemistry*, **1999**, 1999, 2289-2294	2.3	16
120	Hydrogen and nitrogen bonding in silicon nitride layers deposited by laser reactive ablation: Infrared and x-ray photoelectron study. *Applied Physics Letters*, **1995**, 67, 3269-3271	3.4	16
119	Coaxial conducting polymer nanotubes: polypyrrole nanotubes coated with polyaniline or poly(p-phenylenediamine) and products of their carbonisation. *Chemical Papers*, **2015**, 69,	1.9	15
118	Conducting composites prepared by the reduction of silver ions with poly(p-phenylenediamine). *Polymer International*, **2015**, 64, 496-504	3.3	15
117	Surface-Initiated Polymerization of 2-Hydroxyethyl Methacrylate from Heterotelechelic Oligoperoxide-Coated Fe2O3Nanoparticles and their Engulfment by Mammalian Cells. *Chemistry of Materials*, **2011**, 23, 2637-2649	9.6	15
116	The effect of a polypyrrole coating on the thermal stability of microporous polyethylene membranes. *European Polymer Journal*, **2003**, 39, 647-654	5.2	15
115	Structure Analysis of Vanadyl Phosphate Intercalated with Acetone. *Journal of Solid State Chemistry* , **2000**, 150, 356-362	3.3	15
114	Surface modification of tungsten disulfide with polypyrrole for enhancement of the conductivity and its impact on hydrogen evolution reaction. *Applied Surface Science*, **2019**, 492, 497-503	6.7	14
113	Behavior of Tin-Based Ouper-POSS Incorporated in Different Bonding Situations in Hybrid Epoxy Resins. *Macromolecules*, **2014**, 47, 4266-4287	5.5	14
112	The use of hydrophilic poly(N,N-dimethylacrylamide) for promoting engulfment of magnetic gamma-Fe2O3 nanoparticles by mammalian cells. *Journal of Biomedical Nanotechnology*, **2013**, 9, 479-914		14
111	The polymerization of aniline in polystyrene latex particles. *Synthetic Metals*, **2010**, 160, 1598-1602	3.6	14
110	Highly conducting 1-D polypyrrole prepared in the presence of safranin. *Journal of Materials Chemistry C*, **2020**, 8, 12140-12147	7.1	14

109	Effect of O-methyl-□cyclodextrin-modified magnetic nanoparticles on the uptake and extracellular level of l-glutamate in brain nerve terminals. *Colloids and Surfaces B: Biointerfaces*, **2017**, 149, 64-71	6	13
108	In situ polymerized polyaniline films: The top and the bottom. *Synthetic Metals*, **2012**, 162, 2401-2405	3.6	13
107	New barium 4-carboxyphenylphosphonates: Synthesis, characterization and interconversions. *Solid State Sciences*, **2008**, 10, 1533-1542	3.4	13
106	Intercalation of cyclic ethers into vanadyl phosphate. *Chemistry - A European Journal*, **2002**, 8, 1703-9	4.8	13
105	Carbon nitride layers created by laser deposition combined with RF discharge. *Diamond and Related Materials*, **2000**, 9, 548-551	3.5	13
104	Twin carbons: The carbonization of cellulose or carbonized cellulose coated with a conducting polymer, polyaniline. *Carbon*, **2016**, 109, 836-842	10.4	13
103	Conversion of conducting polypyrrole nanostructures to nitrogen-containing carbons and its impact on the adsorption of organic dye. *Materials Advances*, **2021**, 2, 706-717	3.3	13
102	Semiconducting materials from oxidative coupling of phenylenediamines under various acidic conditions. *Materials Chemistry and Physics*, **2018**, 205, 423-435	4.4	13
101	Conducting materials prepared by the oxidation of p-phenylenediamine with p-benzoquinone. *Journal of Solid State Electrochemistry*, **2015**, 19, 2653-2664	2.6	12
100	Tin-based □uper-POSS□ building blocks in epoxy nanocomposites with highly improved oxidation resistance. *Polymer*, **2014**, 55, 3498-3515	3.9	12
99	Conducting polymer and ionic liquid: Improved thermal stability of the material □A spectroscopic study. *Polymer Degradation and Stability*, **2014**, 109, 27-32	4.7	12
98	Structure and properties of polyaniline interacting with H-phosphonates. *Synthetic Metals*, **2017**, 232, 79-86	3.6	12
97	Synthesis and characterization of copper 4-carboxyphenylphosphonates. *Journal of Solid State Chemistry*, **2009**, 182, 3155-3161	3.3	12
96	FTIR study of polyaniline□fullerene complex. *Synthetic Metals*, **2001**, 121, 1117-1118	3.6	12
95	Study of Host□Guest Interactions in Intercalate Zr(HPO4)2□2CH3CH2OH using a Combination of Vibration Spectroscopy and Molecular Simulations. *Journal of Solid State Chemistry*, **1999**, 145, 1-9	3.3	12
94	Interfaced conducting polymers. *Synthetic Metals*, **2017**, 224, 109-115	3.6	11
93	Charge transport and dielectric relaxation processes in aniline-based oligomers. *Synthetic Metals*, **2014**, 192, 37-42	3.6	11
92	Influence of ethanol on the chain-ordering of carbonised polyaniline. *Chemical Papers*, **2013**, 67,	1.9	11

91	Multi-wall carbon nanotubes with nitrogen-containing carbon coating. *Chemical Papers*, **2013**, 67,	1.9	11
90	The use of oligoperoxide-coated magnetic nanoparticles to label stem cells. *Journal of Biomedical Nanotechnology*, **2011**, 7, 384-94	4	11
89	Magnetic poly(glycidyl methacrylate) particles prepared in the presence of surface-modified Fe2O3. *Journal of Polymer Science Part A*, **2009**, 47, 4982-4994	2.5	11
88	Properties and thermal decomposition of polypyrrole prepared in the presence of sodium bis(2-ethylhexyl) sulfosuccinate. *Designed Monomers and Polymers*, **2004**, 7, 633-646	3.1	11
87	Polyaniline composites with fullerene C60. *Physics of the Solid State*, **2002**, 44, 574-575	0.8	11
86	New composite systems on the base of polyethylene porous films covered by polypyrrole and polyacrylic acid. *Journal of Applied Polymer Science*, **2005**, 97, 1410-1417	2.9	11
85	Colloidal dispersions of conducting copolymers of aniline and p-phenylenediamine for films with enhanced conductometric sensitivity to temperature. *Journal of Materials Chemistry C*, **2017**, 5, 1668-1674	7.1	10
84	Interaction of polyaniline film with dibutyl phosphonate versus phosphite: Enhanced thermal stability. *Polymer Degradation and Stability*, **2016**, 134, 357-365	4.7	10
83	Intercalation chemistry of zirconium 4-sulfophenylphosphonate. *Journal of Solid State Chemistry*, **2013**, 208, 58-64	3.3	10
82	Intercalation of Ketones in Vanadyl Phosphate and Isostructural Hosts. *Collection of Czechoslovak Chemical Communications*, **1999**, 64, 1975-1979		10
81	Silica-Coated Fe2O3 Nanoparticles: Preparation and Engulfment by Mammalian Macrophages. *Journal of Nanopharmaceutics and Drug Delivery*, **2013**, 1, 182-192		10
80	Carbogels: carbonized conducting polyaniline/poly(vinyl alcohol) aerogels derived from cryogels for electrochemical capacitors. *Journal of Materials Chemistry A*, **2019**, 7, 1785-1796	13	9
79	Reactivity of the tin homolog of POSS, butylstannoxane dodecamer, in oxygen-induced crosslinking reactions with an organic polymer matrix: Study of long-time behavior. *Polymer Degradation and Stability*, **2015**, 118, 147-166	4.7	9
78	Reduction of silver ions to silver with polyaniline/poly(vinyl alcohol) cryogels and aerogels. *Chemical Papers*, **2018**, 72, 1619-1628	1.9	9
77	Temperature- and humidity-related degradation of conducting polyaniline films. *Macromolecular Symposia*, **2004**, 212, 447-454	0.8	9
76	Application-relevant characterization of magnetron-sputtered carbon nitride films. *Diamond and Related Materials*, **1999**, 8, 1857-1862	3.5	9
75	Polypyrrole/gelatin cryogel as a precursor for a macroporous conducting polymer. *Reactive and Functional Polymers*, **2020**, 157, 104751	4.6	9
74	One-Dimensional Nanostructures of Polypyrrole for Shielding of Electromagnetic Interference in the Microwave Region. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	9

73	One-Pot Preparation of Conducting Melamine/Polypyrrole/Magnetite Ferrosponge. *ACS Applied Polymer Materials*, **2021**, 3, 1107-1115	4.3	9
72	The interaction of thin polyaniline films with various H-phosphonates: Spectroscopy and quantum chemical calculations. *Journal of Applied Polymer Science*, **2018**, 135, 46728	2.9	9
71	Physical crosslinking effects in □dihydroxy terminated polybutadienes. *Polymer*, **2007**, 48, 2079-2086	3.9	8
70	Intercalation of □Butyrolactone into Vanadyl Phosphate and Niobyl Arsenate. *European Journal of Inorganic Chemistry*, **2004**, 2004, 570-574	2.3	8
69	Conducting composite cryogels based on poly(aniline-co-p-phenylenediamine) supported by poly(vinyl alcohol). *Synthetic Metals*, **2018**, 246, 144-149	3.6	8
68	Oxidation of pyrrole with p-benzoquinone to semiconducting products and their application in electrorheology. *New Journal of Chemistry*, **2018**, 42, 10167-10176	3.6	7
67	Gas transport properties of novel mixed matrix membranes made of titanate nanotubes and PBI or PPO. *Desalination and Water Treatment*, **2014**, 1-9		7
66	Chemical oxidative polymerization of benzocaine. *Reactive and Functional Polymers*, **2011**, 71, 704-712	4.6	7
65	Organic Nanocolloidal Polyaniline Dispersions Containing Fullerene. *Fullerenes Nanotubes and Carbon Nanostructures*, **2006**, 14, 447-455	1.8	7
64	Intercalates of Vanadyl Phosphate with Aliphatic Nitriles. *Journal of Inclusion Phenomena and Macrocyclic Chemistry*, **2002**, 43, 95-99		7
63	The influence of tungsten compounds on the synthesis and properties of polyaniline. *Polymer International*, **2005**, 54, 1606-1612	3.3	7
62	Montmorillonite and Beidellite Intercalated with Tetramethylammonium Cations. *Journal of Molecular Modeling*, **2000**, 6, 600-607	2	7
61	Conducting composite films based on chitosan or sodium hyaluronate. Properties and cytocompatibility with human induced pluripotent stem cells. *Carbohydrate Polymers*, **2021**, 253, 117244	10.3	7
60	Effect of 1,3-phenylenediamine concentration on the properties of poly(aniline-co-1,3-phenylenediamine) cryogels. *Materials Letters*, **2018**, 229, 68-70	3.3	7
59	Pressure-Sensitive Conducting and Antibacterial Materials Obtained by Dispersion Coating of Macroporous Melamine Sponges with Polypyrrole. *ACS Omega*, **2021**, 6, 20895-20901	3.9	7
58	Cell-compatible conducting polyaniline films prepared in colloidal dispersion mode. *Colloids and Surfaces B: Biointerfaces*, **2017**, 157, 309-316	6	6
57	Microcomposites of zirconium phosphonates with a conducting polymer, polyaniline: Preparation, spectroscopic study and humidity sensing. *Journal of Solid State Chemistry*, **2019**, 276, 285-293	3.3	6
56	Effect of nanodiamond additives on the structure and gas-transport properties of a poly(phenylene□sophtalamide) matrix. *Journal of Applied Polymer Science*, **2018**, 135, 46320	2.9	6

55	Chemical oxidative polymerization of ethacridine. *Reactive and Functional Polymers*, **2012**, 72, 25-35	4.6	6
54	Preparation of conducting polysiloxane/polyaniline composites. *Journal of Applied Polymer Science*, **2015**, 132, n/a-n/a	2.9	6
53	In Situ Infrared Spectroscopy of Oligoaniline Intermediates Created under Alkaline Conditions. *Journal of Physical Chemistry B*, **2014**, 118, 14972-81	3.4	6
52	Vanadyl phosphate intercalated with dimethyl sulfoxide. *Journal of Physics and Chemistry of Solids*, **2006**, 67, 956-960	3.9	6
51	Intercalates of Vanadyl Phosphate with Dinitriles. *Journal of Inclusion Phenomena and Macrocyclic Chemistry*, **2003**, 45, 235-239		6
50	Pulsed laser deposition of CNx films: role of r.f. nitrogen plasma activation for the film structure formation. *Diamond and Related Materials*, **2002**, 11, 1223-1226	3.5	6
49	Crystal structure analysis of two crystalline bis(ω-hydroxyalkoxy)biphenyls using a combination of powder diffraction, IR spectroscopy and molecular simulation. *Journal of Synchrotron Radiation*, **1999**, 6, 1035-1043	2.4	6
48	Spectroscopic study of the highly homogeneous polyaniline film formation on gold support. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2016**, 152, 294-303	4.4	5
47	RAFT of sulfobetaine for modifying poly(glycidyl methacrylate) microspheres to reduce nonspecific protein adsorption. *Journal of Polymer Science Part A*, **2015**, 53, 2273-2284	2.5	5
46	High-frequency dielectric response of polyaniline pellets as nanocomposites of metallic emeraldine salt and dielectric base. *Synthetic Metals*, **2015**, 209, 561-569	3.6	5
45	Surfactants and amino acids in the control of nanotubular morphology of polypyrrole and their effect on the conductivity. *Colloid and Polymer Science*, **2020**, 298, 319-325	2.4	5
44	NMR investigation of aniline oligomers produced in the oxidation of aniline in alkaline medium. *Polymer International*, **2011**, 60, n/a-n/a	3.3	5
43	Strontium Methylphosphonate Trihydrate: An Example of a New Class of Host Materials for Intercalation Reactions Synthesis, Structure and Intercalation Behavior. *European Journal of Inorganic Chemistry*, **2011**, 2011, 850-859	2.3	5
42	Analysis of annealed thin polymer films prepared from dichloro(methyl)phenylsilane by plasma polymerization. *Journal of Applied Polymer Science*, **2001**, 82, 2106-2112	2.9	5
41	Intercalates of Vanadyl Phosphate with Unsaturated Alcohols. *European Journal of Inorganic Chemistry*, **2001**, 2001, 713-719	2.3	5
40	Conducting polyaniline prepared in the solutions of formic acid: Does functionalization with carboxyl groups occur?. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2020**, 235, 118300	4.4	5
39	Electrorheology of polyindole. *Polymer*, **2021**, 217, 123448	3.9	5
38	2-Hydroxyethyl Methacrylate Hydrogels for Local Drug Delivery: Study of Topotecan and Vincristine Sorption/Desorption Kinetics and Polymer-Drug Interaction by ATR-FTIR Spectroscopy. *Macromolecular Chemistry and Physics*, **2021**, 222, 2100086	2.6	5

37	Conducting polypyrrole-coated macroporous melamine sponges: a simple toy or an advanced material?. *Chemical Papers*, **2021**, 75, 5035-5055	1.9	5
36	Polyaniline–zirconium phosphonate composites: Thermal stability and spectroscopic study. *Journal of Physics and Chemistry of Solids*, **2020**, 147, 109634	3.9	4
35	Effect of initial freezing temperature and comonomer concentration on the properties of poly(aniline-co-m-phenylenediamine) cryogels supported by poly(vinyl alcohol). *Colloid and Polymer Science*, **2020**, 298, 293-301	2.4	4
34	Influence of non-thermal plasma on structural and electrical properties of globular and nanostructured conductive polymer polypyrrole in water suspension. *Scientific Reports*, **2017**, 7, 15068	4.9	4
33	Suspension polymerization of aniline hydrochloride in non-aqueous media. *Polymer International*, **2011**, 60, 794-797	3.3	4
32	Infrared and photoelectron spectroscopy of semi-insulating silicon layers. *Journal of Non-Crystalline Solids*, **1998**, 227-230, 911-915	3.9	4
31	Vanadyl Phosphate Intercalated with Diethyl Ether. *European Journal of Inorganic Chemistry*, **2004**, 2004, 2493-2497	2.3	4
30	Intercalation of cyclic ketones into vanadyl phosphate. *Journal of Solid State Chemistry*, **2005**, 178, 314-320	2.6	4
29	Phase transitions in molecular crystal 4,4?-bis(6-hydroxy-1-hexyloxy)biphenyl studied by molecular dynamics simulations and IR spectroscopy. *Journal of Molecular Structure*, **2001**, 559, 209-217	3.4	4
28	A Study of the Hydration and Dehydration of Vanadyl Arsenate by X-ray Diffraction Analysis, Infrared and Raman Spectroscopy. *European Journal of Inorganic Chemistry*, **2000**, 2000, 895-900	2.3	4
27	Fabrication of polyaniline/poly(vinyl alcohol)/montmorillonite hybrid aerogels toward efficient adsorption of organic dye pollutants.. *Journal of Hazardous Materials*, **2022**, 435, 129004	12.8	4
26	Intercalates of Vanadyl Phosphate with Benzonitrile and Tolunitrile. *European Journal of Inorganic Chemistry*, **2003**, 2003, 3662-3667	2.3	3
25	Poly(2-bromoaniline) and Its Colloidal Dispersions. *Collection of Czechoslovak Chemical Communications*, **2002**, 67, 393-404		3
24	Comparison of carbonized and activated polypyrrole globules, nanofibers, and nanotubes as conducting nanomaterials and adsorbents of organic dye. *Carbon Trends*, **2021**, 4, 100068	0	3
23	Cerium(IV) phenylphosphonates and para-substituted phenylphosphonates: preparation and characterization. *Journal of Inclusion Phenomena and Macrocyclic Chemistry*, **2017**, 87, 331-339	1.7	2
22	Preparation of polyaniline in the presence of polymeric sulfonic acids mixtures: the role of intermolecular interactions between polyacids. *Chemical Papers*, **2013**, 67,	1.9	2
21	Thermal Behavior of Tetrahydropyran-Intercalated VOPO4: Structural and Dynamics Study. *European Journal of Inorganic Chemistry*, **2007**, 2007, 444-451	2.3	2
20	Time-resolved photoluminescence study of AgCl:Cd2+crystalline foils: excitation energy transfer. *Journal of Physics Condensed Matter*, **1995**, 7, 433-446	1.8	2

19	Temperature dependence of the intensity of fluorescence of poly(n-vinylcarbazole) films. *Polymer Bulletin*, **1983**, 9, 52-59	2.4	2
18	Solid manganese dioxide as heterogeneous oxidant of aniline in the preparation of conducting polyaniline or polyaniline/manganese dioxide composites. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2022**, 638, 128298	5.1	2
17	Raman spectroscopy and DFT calculations of PEDOT:PSS in a dipolar field.. *Physical Chemistry Chemical Physics*, **2021**, 24, 541-550	3.6	2
16	Carbon Materials Derived from Poly(aniline---phenylenediamine) Cryogels. *Polymers*, **2019**, 12,	4.5	2
15	Thermally Induced Protonation of Conducting Polyaniline Film by Dibutyl Phosphite Conversion to Phosphate. *Journal of Physical Chemistry A*, **2018**, 122, 9492-9497	2.8	2
14	Conducting and Magnetic Composites Polypyrrole Nanotubes/Magnetite Nanoparticles: Application in Magnetorheology. *ACS Applied Nano Materials*, **2021**, 4, 2247-2256	5.6	2
13	Explosive hazards in polyaniline chemistry. *Chemical Papers*, **2017**, 71, 387-392	1.9	1
12	Nanostructural composites of phthalocyanine and metals. *European Physical Journal D*, **1997**, 47, 461-465		1
11	Intercalation of 1,2-Alkanediols into Zirconium Hydrogenphosphate. *Journal of Inclusion Phenomena and Macrocyclic Chemistry*, **2007**, 58, 95-101		1
10	Molecular dynamics and IR spectroscopy in investigation of phase transitions in molecular crystal 4,4'-bis(11-hydroxy-1-undecyloxy)biphenyl. *Journal of Molecular Modeling*, **2002**, 8, 150-5	2	1
9	Adsorption of organic dyes on macroporous melamine sponge incorporating conducting polypyrrole nanotubes. *Journal of Applied Polymer Science*,52156	2.9	1
8	Nitrogen-containing carbon enriched with tungsten atoms prepared by carbonization of polyaniline. *Chemical Papers*, **2021**, 75, 5153-5161	1.9	1
7	Conducting polypyrrole and polypyrrole/manganese dioxide composites prepared with a solid sacrificial oxidant of pyrrole. *Synthetic Metals*, **2021**, 278, 116807	3.6	1
6	Water/Ethanol Displacement Reactions in Vanadyl Phosphate **1999**, 1999, 2289		1
5	Polypyrrole-Coated Melamine Sponge as a Precursor for Conducting Macroporous Nitrogen-Containing Carbons. *Coatings*, **2022**, 12, 324	2.9	1
4	Effect of sterilization techniques on the conductivity of polyaniline and polypyrrole. *Synthetic Metals*, **2021**, 282, 116937	3.6	0
3	Synthesis and characterization of new barium methylphosphonates. *Dalton Transactions*, **2017**, 46, 5363-5372	4.3	
2	Synthesis and characterization of ester and amide derivatives of titanium(IV) carboxymethylphosphonate. *Journal of Solid State Chemistry*, **2013**, 202, 93-98	3.3	

1 Host-guest Interactions in Intercalates Zr(HPO4)2□2C2H5OH and VOPO4□2C2H5OH. *Journal of Molecular Modeling*, **1998**, 4, 284-293 2