

List of publications of W.Schärfl

(most important publications have been highlighted)

A)	Journal articles	Web-of-Knowledge, last updated: 03-2019			cit.
1	Schaertl, W; Sillescu, H Dynamics of colloidal hard-spheres in thin aqueous suspension layers – particle tracking by digital image- processing and Brownian dynamics computer simulations JOURNAL OF COLLOID AND INTERFACE SCIENCE	155	313-318	1993	34
2	Schaertl, W; Sillescu, H Brownian dynamics simulations of colloidal hard-spheres – effects of sample dimensionality on selfdiffusion JOURNAL OF STATISTICAL PHYSICS	74	687-703	1994	25
3	Schaertl, W; Sillescu, H Brownian dynamics of polydisperse colloidal hard-spheres – equilibrium structures and random close packings JOURNAL OF STATISTICAL PHYSICS	77	1007-1025	1994	114
4	Schaertl, W Brownian dynamics of colloidal hard-spheres .3. extended investigations at the phase-transition regime JOURNAL OF STATISTICAL PHYSICS	79	299-312	1995	5
5	Schaertl, W; Tsutsumi, K; Hashimoto, T Self-diffusion of spherical block-copolymer micelles ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY	209	356	PHYS 1995	0
6	Kirsch, S; Frenz, V; Schartl, W; Bartsch, E; Sillescu, H Multispeckle autocorrelation spectroscopy and its application to the investigation of ultraslow dynamical processes JOURNAL OF CHEMICAL PHYSICS	104	1758-1761	1996	73

7	Smalley, MV; Scharl, W; Hashimoto, T				
	Sogami potential and membrane equilibria				
	LANGMUIR	12	1331-1335	1996	2
8	Smalley, MV; Scharl, W; Hashimoto, T				
	Salt fractionation effect for spherical macroions				
	LANGMUIR	12	2340-2347	1996	6
9	Schaertl, W; Tsutsumi, K; Kimishima, K; Hashimoto, T				
	FRS study of diffusional processes in block copolymer/homopolymer blends containing glassy spherical micelles				
	MACROMOLECULES	29	5297-5305	1996	15
10	Bartsch, E; Frenz, V; Baschnagel, J; Scharl, W; Sillescu, H				
	The glass transition dynamics of polymer micronetwork colloids. A mode coupling analysis				
	JOURNAL OF CHEMICAL PHYSICS	106	3743-3756	1997	75
11	Scharl, WG; Roos, C; Gohr, K				
	Oscillating time correlation functions from dynamic light scattering of gold-labeled tracers				
	JOURNAL OF CHEMICAL PHYSICS	108	9594-9597	1998	6
12	Scharl, W				
	Structure and diffusion of copolymer micelles in entangled homopolymer chains				
	MACROMOLECULAR CHEMISTRY AND PHYSICS 200	481	500	1999	8
13	Graf, C; Scharl, W; Fischer, K; Hugenberg, N; Schmidt, M				
	Core-shell organosilicone-mu-networks with a dye labeled core				
	ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY	217	U449	1999	0
14	Schaertl, W; Roos, C				
	Convection and thermodiffusion of colloidal gold tracers by laser light scattering				
	PHYSICAL REVIEW E	60	2020-2028	1999	34

15	Graf, C; Scharl, W; Fischer, K; Hugenberg, N; Schmidt, M Dye-labeled poly(organosiloxane) microgels with core-shell architecture	LANGMUIR	15	6170-6180	1999	61
16	Gohr, K; Pakula, T; Tsutsumi, K; Scharl, W Dynamics of copolymer micelles in an entangled homopolymer matrix	MACROMOLECULES	32	7156-7165	1999	34
17	Graf, C; Scharl, W; Maskos, M; Schmidt, M Tracer diffusion of polyorganosiloxane nanoparticles in solution: Effects of tracer topology and particle concentration	JOURNAL OF CHEMICAL PHYSICS	112	3031-3039	2000	21
18	Gohr, K; Scharl, W Dynamics of copolymer micelles in a homopolymer melt: Influence of the matrix molecular weight	MACROMOLECULES	33	2129-2135	2000	30
19	Graf, C; Scharl, W; Hugenberg, N Photoinduced cluster formation of coumarin-labeled organosilicon micronetworks	ADVANCED MATERIALS	12	1353-1356	2000	13
20	Wurthner, F; Thalacker, C; Sautter, A; Scharl, W; Ibach, W; Hollricher, O Hierarchical self-organization of perylene bisimide-melamine assemblies to fluorescent mesoscopic superstructures	CHEMISTRY-A EUROPEAN JOURNAL	6	3871-3886	2000	203
21	Spill, R; Kohler, W; Lindenblatt, G; Scharl, W Thermal diffusion and Soret feedback of gold-doped polyorganosiloxane nanospheres in toluene	PHYSICAL REVIEW E	62	8361-8368	2000	27
22	Lindenblatt, G; Scharl, W; Pakula, T; Schmidt, M Synthesis of polystyrene-grafted polyorganosiloxane microgels and their compatibility with linear polystyrene chains	MACROMOLECULES	33	9340 9347	2000	53

23	Schartl, W					
	Crosslinked spherical nanoparticles with core-shell topology					
	ADVANCED MATERIALS	12	1899	+	2000	212
24	Lindenblatt, G; Schartl, W; Pakula, T; Schmidt, M					
	Structure and dynamics of hairy spherical colloids in a matrix of nonentangled linear chains					
	MACROMOLECULES	34	1730-1736		2001	35
25	Hugenberg, N; Loske, S; Muller, AHE; Schartl, W; Schmidt, M; Simon, PFW; Strack, A; Wolf, BA					
	Synthesis and large scale fractionation of non-linear polymers: brushes and hyperbranched polymers					
	JOURNAL OF NON-CRYSTALLINE SOLIDS307	765	771		2002	7
26	Gohr, K; Schartl, W; Willner, L; Pyckhout-Hintzen, W					
	SANS investigation of PS-PB block copolymer micelles in a short chain PB homopolymer matrix					
	MACROMOLECULES	35	9110-9116		2002	13
27	Yezek, L; Schartl, W; Chen, YM; Gohr, K; Schmidt, M					
	Influence of hair density and hair length on interparticle interactions of spherical polymer brushes in a homopolymer matrix					
	MACROMOLECULES	36	4226-4235		2003	33
28	Yuan, XF; Fischer, K; Schartl, W					
	Reversible cluster formation of colloidal nanospheres by interparticle photodimerization					
	ADVANCED FUNCTIONAL MATERIALS	14	457-463		2004	22
29	Yuan, XF; Fischer, K; Schartl, W					
	Photocleavable microcapsules built from photoreactive nanospheres					
	LANGMUIR	21	9374-9380		2005	45
30	Schaertl, Wolfgang					
	From photo-reactive nanoparticles to photo-cleavable microcapsules					
	ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY 231				2006	0

- 31** Berger, R.; Cheng, Y.; Foerch, R.; Gotsmann, B.; Gutmann, J. S.; Pakula, T.; Rietzler, U.; Schaertl, W.; Schmidt, M.; Strack, A.; Windeln, J.; Butt, H. -J.
Nanowear on polymer films of different architecture
LANGMUIR 23 3150-3156 **2007** **44**
- 32** Yuan, Xiaofeng; Schnell, Matthias; Muth, Sandra; Schaertl, Wolfgang
Cluster formation and rheology of photoreactive nanoparticle dispersions
LANGMUIR 24 5299-5305 **2008** **8**
- 33** Grimm, A.; Nowak, C.; Hoffmann, J.; Scharl, W.
Electrophoretic mobility of gold nanoparticles in thermoresponsive hydrogels
MACROMOLECULES 42 6231-6238 **2009** **12**
- 34** Schwaegler, M.; Nowak, C.; Hoffmann, J.; Schaertl, W.
Enhanced gold nanoparticle mobility in thermoresponsive hydrogels caused by localized light-to-heat conversion, leading to a superdiffusive particle transport
JOURNAL OF PHYSICAL CHEMISTRY C 113 15124-15132 **2009** **4**
- 35** Grosserueschkamp, Marc; Nowak, Christoph; Schach, Denise; Schaertl, Wolfgang; Knoll, Wolfgang; Naumann, Renate L. C.
Silver surfaces with optimized surface enhancement by self-assembly of silver nanoparticles for spectroelectrochemical applications
JOURNAL OF PHYSICAL CHEMISTRY C 113 17698-17704 **2009** **8**
- 36** Marksteiner, D.; Wasser, S.; Schaertl, W.
Photochemical gluing of colloidal particles by a simple interparticle polymerization route
LANGMUIR 25 12843-12846 **2009** **0**
- 37** Schaertl, Wolfgang; Xie, Renguo; Ren, Ting; Sejfic, Mirsada; Wenz, Gerhard; Heisel, Ronny; Scherer, Christian; Maskos, Michael; Fischer, Karl; Basche, Thomas
Water-soluble, cyclodextrin-functionalized semiconductor nanocrystals: Preparation and pH-dependent aggregation and emission properties
JOURNAL OF LUMINESCENCE 129 1428-1434 **2009** **6**

38	Schaertl, Wolfgang					
	Current directions in core-shell nanoparticle design					
	NANOSCALE	2	829-843	2010		189
39	Ren, Ting; Erker, Wolfgang; Basche, Thomas; Schartl, Wolfgang					
	Synthesis and spectroscopic properties of silica-dye-semiconductor nanocrystal hybrid particles					
	LANGMUIR	26	17981-17988	2010		2
40	Cardenas-Daw, Carlos; Kroeger, Anja; Schaertl, Wolfgang; Froimowicz, Pablo; Landfester, Katharina					
	Reversible photocycloadditions, a powerful tool for tailoring (nano)materials					
	MACROMOLECULAR CHEMISTRY AND PHYSICS	213	144-156	2012		19
41	Eckelt, Anja; Eckelt, John; Schaertl, Wolfgang; Wolf, Bernhard A.					
	On the incompatibility of dextran and pullulan in aqueous solutions and its modeling					
	MACROMOLECULAR CHEMISTRY AND PHYSICS	213	1206-1215	2012		2
42	Kurzbach, Dennis; Kattnig, Daniel R.; Pfaffenberger, Nane; Schaertl, Wolfgang; Hinderberger, Dariush					
	Highly defined, colloid-like ionic clusters in solution					
	CHEMISTRYOPEN	1	211 214	2012		5
43	Leukel, Sebastian; Panthofer, Martin; Mondeshki, Mihail; Schaertl, Wolfgang; Plana-Ruiz, Sergi; Tremel, Wolfgang					
	Calcium sulfate nanoparticles with unusual dispersibility in organic solvents for transparent film processing					
	LANGMUIR	34	7096-7105	2018		1
44	Kunz, Simon; Pawlik, Maria; Schaertl, Wolfgang; Seiffert, Sebastian					
	Polymer- vs. colloidal-type viscoelastic mechanics of microgel pastes					
	COLLOID AND POLYMER SCIENCE	1	1341-1352	2018		1

B) Books (single author):

1 **Light Scattering from Polymer Solutions and Nanoparticle Dispersions**

W.Schärtl

Springer Laboratory

Springer **2007**

2 **Light Scattering from Polymer Solutions and Nanoparticle Dispersions**

W.Schärtl

Springer Laboratory

Springer-Taschenbuch **2010**

3 **Solution of polymer and nanoparticles light scattering**

W.Schärtl

(see **1**, Chinese Edition)

Machinery Industry Press **2013**

4 **Basic Physical Chemistry - A Complete Introduction on Bachelor of Science Level**

W.Schärtl

Free ebook, Bookboon **2013**

5 **Statistical Thermodynamics and Spectroscopy**

W.Schärtl

Free ebook, Bookboon **2015**

C) Book Chapters:

- 1** Nanoparticles with Polymeric Surfaces – fillers and models for ultrasoft colloids
W.Schärtl
in: **Nanoscale Materials**, eds. L.M.Liz-Marzán and P.V.Kamat
Kluwer Academic Publishers, Boston/Dordrecht/London **2003**

- 2** Nanoscopic Optical Tracers
W.Schärtl and S.Schärtl
in: **Encyclopedia of Nanoscience**, ed. H.S.Nalwa
American Scientific Publishers **2004**

- 3** Forced Rayleigh Scattering – Principles and Application (Self Diffusion of Spherical Nanoparticles and Copolymer Micelles)
W.Schärtl
in: **Soft-Matter Characterization**, eds. R.Borsali and R.Pecora
Springer **2008**