

Publications resulted from the data measured at KWS-1 and KWS-2 @ FRMII:

2012:

L.Simeone, G.Mangiapia, G.Vitiello, C.Irace, A.Colonna, O.Ortona, D.Montesarchio, L.Paduano
A cholesterol-based nucleolipid-ruthenium complex stabilized by lipid aggregates for antineoplastic therapy

Bioconjugate Chemistry (in press)

A. Muñoz, J. Martínez, M.A. Monge, B. Savoini, R. Pareja, A. Radulescu
SANS evidence for the dispersion of nanoparticles in $W-1Y_2O_3$ and $W-1La_2O_3$ processed by hot isostatic pressing

International Journal of Refractory Metals and Hard Materials (in press)

C. Heintze, M. Hernández-Mayoral, A. Ulbricht, F. Bergner, A. Shariq, T. Weissgärber, H. Frielinghaus
Nanoscale characterization of ODS Fe–9%Cr model alloys compacted by spark plasma sintering

Journal of Nuclear Materials (in press)

A.Radulescu, V.Pipich, H.Frielinghaus, M.S.Appavou
KWS-2, the high intensity / wide Q-range small-angle neutron diffractometer for soft-matter and biology at FRM II.

Journal of Physics: Conference Series 351, 012026, 2012

A.Radulescu, L.J.Fetters, D.Richter
Tailored polymer additives for wax (paraffin) crystal control
in “**Crude Oil Emulsions – Composition Stability and Characterization**”, Ed. Manar El-Sayed Abdul-Raouf, InTech, pp.205-230, 2012

D.Schwahn, V.Pipich, D.Richter
Composition and Long-Range Density Fluctuations in PEO/PMMA Polymer Blends: A Result of Asymmetric Component Mobility

Macromolecules 45, 2035-2049, 2012

G.Mangiapia, G.D’Errico, L.Simeone, C.Irace, A.Radulescu, A.Di Pascale, A.Colonna, D.Montesarchio, L.Paduano

Ruthenium-based complex nanocarriers for cancer therapy

Biomaterials 33, 3770-3782, 2012

Yu.Garmay, A.Shvetsov, D.Karelov, D.LEbedev, A.Radulescu, M.Petukhov, V.Isaev-Ivanov
Correlated motion of protein subdomains and large-scale conformational flexibility of RecA protein filament

Journal of Physics: Conference Series 340, 012094, 2012

B. Malard, B. Remy, C. Scott, A. Deschamps, J. Chêne, T. Dieudonné, M.H. Mathon
Hydrogen trapping by VC precipitates and structural defects in a high strength Fe–Mn–C steel studied by small-angle neutron scattering

Materials Science and Engineering A 536, 110-116, 2012

A.Radulescu, L.J.Fetters, D.Richter

Structural characterization of semicrystalline polymer morphologies by imaging-SANS

Journal of Physics: Conference Series 340, 012089, 2012

J. Bahadur, D. Sen, S. Mazumder, B. Paul, H. Bhatt, S. G. Singh

Control of Buckling in Colloidal Droplets during Evaporation-Induced Assembly of Nanoparticles

Langmuir 28 1914–1923, 2012

T.Zinn, L.Willner, R.Lund, V.Pipich, D.Richter

Equilibrium exchange kinetics in n-alkyl-PEO polymeric micelles: single exponential relaxation and chain length dependence

Soft Matter 8, 623-626, 2012

F. Zhang, F. Roosen-Runge, M. W. A. Skoda, R. M. J. Jacobs, M. Wolf, Ph. Callow, H.

Frielinghaus, V. Pipich, S. Prévost and F. Schreiber

Hydration and interactions in protein solutions containing concentrated electrolytes studied by small-angle scattering

Phys.Chem.Chem.Phys. 14, 2483-2493, 2012

D. Sen, J. Bahadur, S. Mazumder, G. Verma, P. A. Hassan, S. Bhattacharya, K. Vijai and P. Doshi

Nanocomposite silica surfactant microcapsules by evaporation induced self assembly: tuning the morphological buckling by modifying viscosity and surface charge

Soft Matter 8, 1955-1963, 2012

2011:

A.R.Brás, R.Pasquino, T.Koukoulas, G.Tsolou, O.Holderer, A.Radulescu, J.Allgaier, V.G.

Mavrantzas, W.Pyckhout-Hintzen, A.Wischnewski, D.Vlassopoulos, D.Richter

Structure and dynamics of polymer rings by neutron scattering: breakdown of the Rouse model

Soft Matter, 7, 11169-11176, 2011

G.Mangiapia, M.Vaccaro, G.D'Errico, H.Frielinghaus, A.Radulescu, V.Pipich, A.M. Carnerup, L. Paduano

Cubosomes for ruthenium complex delivery: formulation and characterization

Soft Matter, 7, 10577-10580, 2011

S.Prévost, S.Riemer, W.Fischer, R.Haag, C.Böttcher, J.Gummel, I.Grillo, M.S.Appavou, Michael Gradzielski

Colloidal Structure and Stability of DNA/Polycations Polyplexes Investigated by Small Angle Scattering

Biomacromolecules 12, 4272–4282, 2011

K.Bressel, S.Prevoost, M.S.Appavou, B.Tiersch, J.Koetzd, M.Gradzielski

Phase behaviour and structure of zwitterionic mixtures of perfluorocarboxylates and tetradecyldimethylamine oxide—dependence on chain length of the perfluoro surfactant

Soft Matter, 7, 11232-11242, 2011

A.Accardo, A.Morisco, E.Gianolio, D.Tesaro, G.Mangiapia, A.Radulescu, A.Brandt, G.Morelli

Nanoparticles containing octeotide peptides and gadolinium complexes for MRI applications

Journal of Peptide Science, 17, 154 – 162, 2011

A.Ioffe, E.Babcock, V.Pipich, A.Radulescu

Wide-angle polarization analysis with ^3He for neutron scattering instrumentation at the JCNS

Journal of Physics: Conference Series 294, 012013, 2011

Z.Wu, V.Gogonea, X.Lee, R.P.May, V.Pipich, M.A.Wagner, A.Undurti, T.C.Tallant, C.Baleanu-Gogonea, F.Charlton, A.Ioffe, J.A.DiDonato, K.A.Rye, S.L.Hazen

The low resolution structure of ApoA1 in spherical high density lipoprotein revealed by small angle neutron scattering

Journal of Biological Chemistry 286, 12495-12508, 2011

E. Babcock, S. Mattauch, A. Ioffe

High level of ^3He polarization maintained in an on-beam ^3He spin filter using SEOP

NIM A, 625, 43-46, 2011

G.D'Errico, L.Paduano, O.Ortona, G.Mangiapia, L.Coppola, F.Lo Celso

*Temperature and concentration effects on supramolecular aggregation and phase behavior for poly(propylene oxide)-*b*-poly(ethylene oxide)-*b*-poly(propylene oxide) copolymers of different concentration in aqueous mixtures*

Journal of Colloid and Interface Science 359, 179-188, 2011

E. Babcock, A. Ioffe

Polarized ^3He neutron spin filter program at the JCNS

Physica B 406, 2448-2452, 2011

M. Kerscher, P. Busch, S. Mattauch, H. Frielinghaus, D. Richter, M. Belushkin, and G. Gompper
Near-surface structure of a bicontinuous microemulsion with a transition region

Physical Review E 83, 030401, 2011

C.Ruthard, M.Maskos, U.Kolb, F.Gröhn

Polystyrene Sulfonate Porphyrin Assemblies: Influence of Polyelectrolyte and Porphyrin Structure

Journal of Physical Chemistry B 115, 5716-5729, 2011

G.Gröger, W.Meyer-Zaika, C.Böttcher, F.Gröhn, C.Ruthard, C.Schmuck

Switchable Supramolecular Polymers from the Self-Assembly of a Small Monomer with Two Orthogonal Binding Interactions

Journal of American Chemical Society 133, 8961-8971, 2011

J. Bahadur, D. Sen, S. Mazumder, S. Bhattacharya, H. Frielinghaus, G. Goerigk

Origin of Buckling Phenomenon during Drying of Micrometer-Sized Colloidal Droplets

Langmuir 27, 8404-8414, 2011

C.Gerstl, G.J. Schneider, W.Pyckhout-Hintzen, Jürgen Allgaier, S.Willbold, D.Hofmann, U. Disko, H.Frielinghaus, D.Richter

Chain Conformation of Poly(alkylene oxide)s Studied by Small-Angle Neutron Scattering

Macromolecules 44, 6077-6084, 2011

K.Nusser, G.J.Schneider, W.Pyckhout-Hintzen, D.Richter

Viscosity Decrease and Reinforcement in Polymer-Silsesquioxane Composites

Macromolecules 44, 7820-7830, 2011

L.Simeone, G.Mangiapia, C.Irace, A.Di Pascale, A.Colonna, O.Ortona, L.De Napoli, D. Montesarchio, L.Paduano
Nucleolipid nanovectors as molecular carriers for potential applications in drug delivery
Molecular BioSystems 7, 3075–3086, 2011

R.Lund, L.Willner, V.Pipich, I.Grillo, P.Lindner, J.Colmenero, D.Richter
Equilibrium Chain Exchange Kinetics of Diblock Copolymer Micelles: Effect of Morphology
Macromolecules 44, 6145–6154, 2011

D.Sen, J. Savio Melo, J.Bahadur, S. Mazumder, S. Bhattacharya, S. F. D'Souza, H. Frielinghaus, G. Goerigk, R. Loidl
Arrest of morphological transformation during evaporation-induced self-assembly of mixed colloids in micrometric droplets by charge tuning
Soft Matter 7, 5423–5429, 2011

Davaasambuu, J.; Güthoff, F.; Hölzel, M.; Senyshyn, A.; Radulescu, A.; Eckold, G.
Phase behaviour of $\text{CoCl}_2\text{-MnCl}_2$ mixed crystals.
Zeitschrift für Physikalische Chemie 225, 413-420, 2011

Lund, R.; Pipich, V.; Willner, L.; Radulescu, A.; Colmenero, J.; Richter, D.
Structural and Thermodynamical Aspects of the Cylinder-to-Sphere Transition in Amphiphilic Diblock Copolymer Micelles.
Soft Matter 7, 1491-1500, 2011

P. Busch, M. Rauscher, J.-F. Moulin and P. Müller-Buschbaum
Debye-Scherrer rings from block copolymer films with powder-like order
Journal of Applied Crystallography 44, 370-379, 2011

Granite, M.; Radulescu, A.; Pyckhout-Hintzen, W.; Cohen, Y.
Interactions between Block Copolymers and Single-Walled Carbon Nanotubes in Aqueous Solutions: A Small-Angle Neutron Scattering Study.
Langmuir 27, 751-759, 2011

Mangiapia, G.; Coppola, C.; Vitiello, G.; d'Errico, G.; De Napoli, L.; Radulescu, A.; Montesarchio, D.; Paduano, L.
Nanostructuring of CyPlos (Cyclic Phosphate-Linked OligoSaccharides), Novel Saccharide-based Synthetic Ion Transporters.
Journal of Colloids and Interface Science 354, 718-724, 2011

A.Radulescu, D.Schwahn, J.Stellbrink, M.Monkenbusch, L.J.Fetters, D.Richter
Microstructure and morphology of self-assembling multiblock poly(ethylene-1-butene)-n copolymers in solution studied by wide-Q small-angle neutron scattering and microscopy.
Journal of Polymer Science B: Polymer Physics 49, 144-158, 2011

2010:

Nusser, K.; Neueder, S.; Schneider, G.J.; Meyer, M.; Pyckhout-Hintzen, W.; Willner, L.; Radulescu, A.; Richter, D.
Conformations of silica - poly(ethylene-propylene) nanocomposites
Macromolecules 23, 9837-9847, 2010

Frielinghaus, X.; Brodeck, M.; Holderer, O.; Frielinghaus, H.
Confined Polymer Dynamics on Clay Platelets
Langmuir 22, 17444-17448, 2010

Gröhn, F.
Soft matter nanoparticles with various shapes and functionalities can form through electrostatic self-assembly
Soft Matter 6, 4296-4302, 2010

Heiss, A.; Pipich, V.; Jahnen-Dechentand, W.; Schwahn, D.
Fetuin-A is a Mineral Carrier Protein: Small Angle Neutron Scattering provides new Insight on Fetuin-A controlled Calcification Inhibition.
Biophysical J. 99, 3986-3995, 2010

d'Errico, G.; Silipo, A.; Mangiapia, G.; Vitirillo, G.; Radulescu, A.; Molinaro, A.; Lanzetta, R.; Paduano, L.
Characterization of liposomes formed by lipopolysaccharides from Burkholderia cenocepacia, Burkholderia multivorans and Agrobacterium tumefaciens: from the molecular structure to the aggregation architecture
Physical Chemistry Chemical Physics 12, 13574 – 13585, 2010

Inoue, R.; Biehl, R.; Rosenkranz, T.; Fitter, J.; Monkenbusch, M.; Radulescu, A.; Farago, B.; Richter, D.
Large Domain fluctuations on 50ns timescale enable catalytic activity in phosphoglycerate kinase
Biophysical Journal 99, 2309 – 2317, 2010

Vad, T.; Sager, W.F.C.; Zhang, J.; Buitenhuis, J.; Radulescu, A.
Experimental determination of resolution function parameters from small-angle neutron scattering data of a colloidal SiO₂ dispersion
Journal of Applied Crystallography, 43, 686 – 692, 2010

Rovira-Esteva, M.; Murugan, A.; Pardo, L.C.; Busch, S.; Ruiz-Martín, M.D.; Appavou, M.S.; Tamarit, J.L.; Smuda, C.; Unruh, T.; Bermejo, F.J.; Cuello, G.J.; Rzoska, S.Z.
Microscopic structures and dynamics of high- and low-density liquid trans-1,2-dichloroethylene
Physical Review B 81, 092202, 2010

Willner, L.; Lund, R.; Monkenbusch, M.; Holderer, O.; Colmenero, J.; Richter, D.
Polymer dynamics under soft confinement in a self-assembled system
Soft Matter, 6, 1559 – 2570, 2010

Gogonea, V.; Wu, Z.; Lee, X.; Pipich, V.; Li, X.-M.; Ioffe, A.; DiDonato, J.A.; Hazen, S.L.
Congruency between Biophysical Data from Multiple Platforms and Molecular Dynamics Simulation of the Double-Super Helix Model of Nascent High-Density Lipoprotein
Biochemistry, 49, 7323–7343, 2010

Le Coeur, C.; Teixeira, J.; Busch, P.; Longeville, S.
Compression of random coils due to macromolecular crowding: Scaling effects
Physical Review E, 81, 061914, 2010

Jain, A.; Kulkarni, A.; Bivigou Koumba, A.M.; Wang, W.; Busch, P.; Laschewsky, A.; Müller-Buschbaum, P.; Papadakis, C.M.

Micellar Solutions of a Symmetrical Amphiphilic ABA Triblock Copolymer with a Temperature-Responsive Shell

Macromolecular Symposia, 291-292, 221 – 229, 2010

Friedrich, T.; Tieke, B.; Meyer, M.; Pyckhout-Hintzen, W.; Pipich, V.

*Thermoresponsive copolymer hydrogels based on *n*-isopropylacrylamide and cationic surfactant monomers prepared from micellar solution and microemulsion in a one-step reaction*

Journal of Physical Chemistry B, 114, 5666 – 5677, 2010

A.Papagiannopoulos, M.Karayianni, G.Mountrichas, S.Pispas and A.Radulescu

Self-Assembled Nanoparticles from a Block Polyelectrolyte in Aqueous Media: Structural Characterization by SANS

Journal of Physical Chemistry B 114, 7482–7488, 2010

J. Martín, M. Krutyeva, M. Monkenbusch, A. Arbe, J. Allgaier, A. Radulescu, P. Falus, J. Maiz, C. Mijangos, J. Colmenero, and D. Richter

Direct Observation of Confined Single Chain Dynamics by Neutron Scattering

Physical Review Letters 104, 197801, 2010

A.Accardo, R.Mansi, A.Morisco, G.Mangiapia, L.Paduano, D.Tesauro, A.Radulescu, M.Aurilio, L.Aloj, C.Arro, G.Morelli

Peptide modified nanocarriers for selective targeting of bombesin receptors

Molecular BioSystems 6, 878-887, 2010

Dhiman, I.; Das, A.; Mittal, R.; Su, Y.; Kumar, A.; Radulescu, A.

Diffuse neutron scattering study of magnetic correlations in half-doped $\text{La}_{0.5}\text{Ca}_{0.5-x}\text{Sr}_x\text{MnO}_3$ ($x = 0.1, 0.3$ and 0.4)

Physical Review B 81, 104423, 2010

Adelsberger, J.; Kulkarni, A.; Jain, A.; Wang, W.; Bivigou-Koumba, A.M.; Busch, P.; Pipich, V.; Holderer, O.; Hellweg, T.; Laschewsky, A.; Müller-Buschbaum, P.Ü; Papadakis, C.M.

*Thermoresponsive PS-*b*-PNIPAM-*b*-PS Micelles: Aggregation Behavior, Segmental Dynamics, and Thermal Response*

Macromolecules 43, 2490 – 2501, 2010

C.Coppola, A.Paciello, G.Mangiapia, S.Licen, M.Boccalon, L.De Napoli, L.Paduano, P. Tecilla, D.Montesarchio

Design, Synthesis and Characterisation of a Fluorescently Labelled CyPLOS Ionophore

Chemistry - A European Journal 16, 13757–13772, 2010

2009:

Vacarro, M.; Magiapia, G.; Radulescu, A.; Schillen, K.; D'Errico, G.; Morelli, G.; Paduano, L.

Colloidal particles composed of amphiphilic molecules binding gadolinium complexes and peptides as tumor-specific contrast agents in MRI: physico-chemical characterization

Soft Matter, 5, 2504 – 2512, 2009

Frielinghaus, H.; Pipich, V.; Radulescu, A.; Heiderich, M.; Hanslik, R.; Dahlhoff, K.; Iwase, H.; Koizumi, S.; Schwahn, D.

Aspherical refractive lenses for small angle neutron scattering

Journal of Applied Crystallography, 42, 681 – 690, 2009

Hamley, I.W.; O'Driscoll, B.M.D.; Lotze, G.; Moulton, C.; Allgaier, J.; Frielinghaus, H.

Highly asymmetric phase diagram of a poly(1,2-octylene oxide)–poly(ethylene oxide) diblock copolymer system comprising a brush-like poly(1,2-octylene oxide) block

Macromolecular Rapid Communications, 30, 2414 – 2146, 2009

Vaccaro, M.; del Litto, R.; Mangiapia, G.; Carnerup, A.M.; d'Errico, G.; Ruffo, F.; Paduano, L.

Lipid based nanovectors containing ruthenium complexes: a potential route in cancer therapy.

Chemical Communications, 1404-1406, 2009

d'Auria, G.; Vacatello, M.; Falcigno, L.; Paduano, L.; Mangiapia, G.; Calvanese, L.; Gambatretto, R.; Dettin, M.; Paolillo, L.

Self-assembling properties of ionic-complementary peptides

Journal of Peptide Science 15, 210-219, 2009

2008:

Vaccaro, M.; Mangiapia, G.; Accardo, A.; Tesauro, D.; Gianolio, E.; Frielinghaus, H.; Morelli, G.; Paduano, L.

Polymerized mixed aggregates containing gadolinium complex and CCK8 peptide

Colloid & Polymer Science 286, 1643–1652, 2008

Stubenrauch, C; Tessendorf, R.; Salvati, A.; Topgaard, D.; Sottmann, T.; Strey, R.; Lynch, I.

Gelled Polymerizable Microemulsions. 2. Microstructure

Langmuir, 24, 8473–8482, 2008

Radulescu, A.; Ioffe, A.

Neutron guide system for small-angle neutron scattering instruments of the Jülich Centre for Neutron Science at the FRM-II

NIM A 586, 55-58, 2008