

## Arbeits- und Zeitplan für die Anfertigung der Dissertation: Raul Garcia Diez

Time	Activity
March 2013	Start of my activity in the X-ray Radiometry group in PTB
March-June 2013	Familiarization with concepts about Small-angle Scattering and nanoparticles in suspension: Literature research, training with the experimental technique, simulation of core-shell form-factor
June-October 2013	Collaboration with NPL: Characterization of protein-coated nanoparticles by single-contrast SAXS and complementary techniques (DCS, DLS)
August 2013	Publication submitted: "Characterization of IgG-protein-coated polymeric nanoparticles using complementary particle sizing techniques" C. Minelli <i>et al</i> , ECASIA special issue paper ( <i>Surf. Interface. Anal.</i> )
October 2013	ECASIA 2013 - Sardinia Scientific input in the oral contribution from C. Minelli (NPL) "Characterization of nanoparticles' interface for biomedical applications"
November 2013	Study of the theoretical background and experimental possibilities of solvent contrast variation with sucrose as contrast agent
Dec 2013-Feb 2014	First experiments using the solvent contrast variation technique and the density gradient capillary with polymeric nanoparticles
April 2014	DPG 2014 - Dresden (Oral Contribution) "Resolving the inner structure of nanoparticles by means of solvent contrast variation in SAXS"
June 2014	Adlershofer Seminar - Berlin (Oral Contribution) "Röntgenkleinwinkelstreuung mit Lösungsmittel-Kontrastvariation"
August 2014	Collaboration with MTA: Experiments using the continuous contrast variation technique in SAXS with a liposomal formulation of doxorubicin
September 2014	SNI 2014 - Bonn (Oral Contribution) "Contrast Variation in SAXS by means of a solvent density gradient"
September 2014	Doktoranden Seminar Abteilung 7 PTB - Berlin (Oral Contribution) "Können wir in das Innere der Nanopartikel mittels SAXS und Kontrastvariation hineinschauen?"
September 2014	Publication submitted: "Nanoparticle characterization by continuous contrast variation in SAXS with a solvent density gradient" R. Garcia-Diez <i>et al</i> (J. Appl. Cryst.)
November 2014	Use of a short-distance setup (WAXS) to observe large- $q$ structures, for example, the diffraction peak of the fiber-like structure of doxorubicin
December 2014	Experiments using the continuous contrast variation technique in SAXS with lipoproteins and protein-coated nanoparticles
January 2015	NSSM 2015 - Helsinki (Oral Contribution) "Characterization of a liposomal drug carrier with continuous contrast variation in SAXS"
Feb-March 2015	Participation in the 46th IFF Spring School 2015 about "Functional Soft Matter" in Forschungszentrum Jülich
March 2015	DPG 2015 - Berlin (Oral Contribution) "Characterization of a liposomal drug carrier with continuous contrast variation in SAXS"

Time	Activity
<b>April-May 2015</b>	Collaboration with MTA: Study of the osmotic effects in liposomes
<b>June 2015</b>	Publication submitted: "Size determination of a liposomal drug by SAXS using continuous contrast variation" R. Garcia-Diez <i>et al</i> (Langmuir)
<b>September 2015</b>	SRPS 2015 - Madrid (Oral Contribution) "Characterization of polymeric colloids by continuous contrast variation in SAXS" <i>Prize for the best oral contribution</i>
<b>September 2015</b>	SAS 2015 - Berlin (2 Posters) "Size determination of a liposomal drug by small-angle X-ray scattering using continuous contrast variation" "Nanoparticle characterization by continuous contrast variation in SAXS with a solvent density gradient"
<b>Nov-Dec 2016</b>	Evaluation of experimental data: Osmotic effects in liposomes
<b>November 2015</b>	Publication submitted: "Simultaneous size and density determination of polymeric colloids by continuous contrast variation in SAXS" R. Garcia-Diez <i>et al</i> (Eur. Polym. J.)
<b>January 2016</b>	NSSM 2016 - Uppsala (Oral Contribution) "Osmotic effects in liposomes observed with continuous contrast variation in SAXS"
<b>Feb-March 2016</b>	Finalizing the evaluation of the experimental data and preparation for the Thesis writing
<b>April-May 2016</b>	Collaboration with Lund Uni: catalytic silks studied using anomalous SAXS
<b>June-Nov 2016</b>	Writing of PhD Thesis
<b>July 2016</b>	Arbeitsgruppenseminar Abteilung B4 MBI - Berlin (Oral Contribution) "Characterization of nanoparticles by continuous contrast variation in SAXS"
<b>September 2016</b>	Doktoranden Seminar Abteilung 7 PTB - Berlin (Oral Contribution) "Characterization of nanoparticles by continuous contrast variation in SAXS"
<b>October 2016</b>	Collaboration with Lund Uni: visit of PI and in-situ experiments of the catalytic silk
<b>November 2016</b>	Submission of the PhD Thesis: "Characterization of nanoparticles by continuous contrast variation in SAXS"

Ort, Datum

Unterschrift

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