

SCIENTIFIC PUBLICATIONS

Reviewed Papers:

1. ALARGOVA, R., Petkov, J., Petsev, D., Ivanov, I. B., Broze, G. and Mehreteab, A., "**Light Scattering Study of Sodium Dodecyl Polyoxyethylene-2 Sulfate Micelles in the Presence of Multivalent Counter Ions**", *Langmuir* (1995), **11**, p.1530.
2. Marinova, K. G., ALARGOVA, R. G., Denkov, N. D., Veleev, O. V., Petsev, D. N., Ivanov, I. B. and Borwankar, R. "**Charging of Oil-Water Interfaces Due to Spontaneous Adsorption of Hydroxyl Ions**", *Langmuir* (1996), **12**, p.2045.
3. ALARGOVA, R.G., Danov, K.D., Petkov, J.T., Kralchevsky, P., Broze, G. and Mehreteab, A. "**Sphere-to-Rod Transition in the Shape of Anionic Surfactant Micelles Determined by Surface Tension Measurements**", *Langmuir* (1997) **13** p.5544.
4. ALARGOVA, R. G., Denkov, N. D., Petsev, D. N., Petkov, J. P. and Ivanov, I. B. "**Characterization of Ultra and Microfiltration Membranes by Light Scattering Study of Polymer Cut-off Fractions**", *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, (1998), **134**, p.331.
5. Marinova, K.G., Gurkov, T.D., Dimitrova, T.D., ALARGOVA, R.G., and Smith, D., "**Role of the Oscillatory Structural Forces for the Interactions in Thin Emulsion Films, Containing Micelles**", *Langmuir* (1998), **14** p.2011;
6. Marinova, K.G., Gurkov, T.D., Dimitrova, T.D., ALARGOVA, R.G., and Smith, D., "**Oscillatory Structural Interactions in Thin Emulsion Films containing Micelles of Ionic Surfactant**", *Progr. Colloid Polym. Sci.* (1998) **110**, p.245.
7. ALARGOVA, R.G., Danov, K.D., Kralchevsky, P.A., Broze, G. and Mehreteab, A. "**Growth of Giant Rod-Like Micelles of Ionic Surfactant in the Presence of Al^{3+} Counterions**" *Langmuir* (1998), **14**, p.4036.
8. ALARGOVA, R.G., Ivanova, V.P., Kralchevsky, P.A., Mehreteab, A. and Broze, G., "**Growth of Rod-Like Micelles in Anionic Surfactant Solutions in the Presence of Ca^{2+} Counterions**", *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, (1998), **142**, p. 201.
9. ALARGOVA, R.G., Vakarelsky, I. Y., Paunov, V. N., Stoyanov, S. D., Kralchevsky, P. A., Mehreteab, A. and Broze, G., "**Properties of Amphoteric Surfactants Studied by ζ -potential Measurements with Latex Particles**", *Langmuir* (1998), **14**, p.1996.
10. ALARGOVA, R.G., Kochijashky, I.I, and Zana, R., "**Fluorescence Study of the Aggregation Behavior of Different Surfactants in Aqueous Solutions in the Presence and in the Absence of Gas**", *Langmuir* (1998), **14**, p.1575.
11. ALARGOVA, R.G., Kochijashky, I. I., Sierra, M.-L. and Zana R., "**Micelle Aggregation Numbers of Surfactants in Aqueous Solutions: a Comparison between the Results from Steady-State and Time-Resolved Fluorescence Quenching**", *Langmuir* (1998), **14**, p.5412.
12. Bivas, I., Vitkova, V., Mitov, M.D., Winterhalter, M., ALARGOVA, R.G, Meleard, P., Bothorel, "**Mechanical Properties of Lipid Bilayers, Containing Grafted Lipids**", Chapter 14 in "*Giant Vesicles*" Vol.6 of "Perspectives in Supramolecular Chemistry" (Ed. Pier Luigi Luisi and Peter Walde), John Wiley& Sons, (2000), p.207.
13. Dimov, N.K., Ahmed, E.H., ALARGOVA, R.G., Kralchevsky, P.A., Durbut, P., Broze, G., Mehreteab, A., "**Deposition of Oil Drops on a Glass Substrate in Relation to the Process of Washing**", *J. Colloid Interface Sci.* (2000), **224**, p.116.
14. ALARGOVA, R.G., Kochijashky, I.I, Sierra, M.L., Kwetkat, K., and Zana, R., "**Mixed Micellization of Dimeric (Gemini) Surfactants and Conventional Surfactants**" II. CMC and Micelle Aggregation Numbers for Various Mixtures", *J. Colloid Interface Sci.* (2001), **235**, p.119.

15. ALARGOVA, R.G., Deguchi, S., Tsujii, K., **“Dynamic Light Scattering Study of Polystyrene Latex Suspended in Water at High Temperatures and High Pressures”**, *Colloids&Surfaces A: Physicochemical and Engineering Aspects*, (2001) **183-185**, p.303.
16. Deguchi, S., ALARGOVA, R.G., Tsujii, K., **“Stable Dispersions of Fullerenes, C60 and C70, in Water. Preparation and Characterization.”**, *Langmuir* (2001) **17**, p.6013.
17. ALARGOVA, R.G., Deguchi, S., Tsujii, K., **“Stable Colloidal Dispersions of Fullerenes in Polar Organic Solvents”**, *J. Am. Chem. Soc.* (2001), **123**, p. 10460.
18. ALARGOVA, R.G., Petkov, J.T., Petsev, D.N., **“Self-Assembly of Anionic Surfactants in the Presence of Multivalent Counterions”**, *J. Colloid Interface Sci.* (2003), **261**, p. 1 (feature article).
19. ALARGOVA, R.G., Tsujii, K., **“Behavior of Colloids in Supercritical Water: an Attempt to Study Diffusion Coefficients Using DLS”**, *Progress in Colloid and Polymer Science*, (2003) (in press).

Invited:

20. ALARGOVA, R.G., **"Applying Dynamic Light Scattering to Studying Diffusion Coefficients of Brownian Particles in Supercritical Water"**, *LS Advance*, (2003), **2** (1) p. 17 (Edited by Otsuka Electronics Co., Osaka, Japan) in Japanese.

Proceedings:

21. Petsev, D. N., ALARGOVA, R. G., Nikolov, A. D. and Ivanov, I. B. **"Micellar Enhanced Ultrafiltration of Heavy Metal Ions"**, Collection, 100 Anniversary of Sofia University (1990).
22. Velez, O., Gurkov, T., ALARGOVA, R., K.Marinova, I.Ivanov and R.Borwankar, **"Stability of Films and Emulsions in the Presence of Nonionic Surfactant Blends"**, Proceedings of 1st World Congress on Emulsions, Paris, **1-22-130** (1993).
23. Ivanov, I.B., Marinova, K.G., ALARGOVA, R.G., Denkov, N.D., Rajendra, P., **“Charge of Emulsion Droplets covered with nonionic surfactants”**, Proceedings of 2nd World Congress on Emulsions, Bordeaux, **2-2-149** (1997).
24. ALARGOVA, R.G., Deguchi, S., Tsujii, K., **“Stable Colloidal Dispersions of Fullerenes in Polar Organic Solvents: Influence of Polymer and Organic Additives”**, (2001) Second Workshop on Nanoscience and Nanotechnology, 22-23 November 2000, Sofia, Bulgaria, Eds. E.Balabanova and I. Dragieva, Heron Press, ISBN 954-580-097-6, p.145.
25. Deguchi, S., ALARGOVA, R.G., Tsujii, K., **“Stable Dispersions of Nanocrystalline C60 in Water. Preparation and Characterization.”**, (2001) Second Workshop on Nanoscience and Nanotechnology, 22-23 November 2000, Sofia, Bulgaria, Eds. E.Balabanova and I. Dragieva, Heron Press, ISBN 954-580-097-6, p.148.
26. ALARGOVA, R.G., Deguchi, S., Tsujii, K., **“Colloid Stability in Sub- and Supercritical Water Studied by Dynamic Light Scattering”**. Proceedings of 6th Conference on Supercritical Fluids and Their Applications, September 9-12, 2001, in Maiori, Italy.

PATENTS:

Japanese Patent No 3423922, “Method for manufacturing dispersions of fullerenes in polar liquids” (2003).

Selected Contributed Papers

1. R.G.Alargova, S. Deguchi, K. Tsujii, and K. Horikoshi, "Colloidal Dispersions of Fullerenes in Polar Organic Solvents", *13th International Symposium on Surfactants in Solution*, Gainesville, Florida, USA, June 11-16, 2000.
2. R.G.Alargova, S. Deguchi, K. Tsujii, and K. Horikoshi, "Colloidal Dispersions of Fullerenes in Polar Organic Solvents", *The Nagoya COE-RCMS Conference on Material Science and Nanotechnology, Trends toward the 21st Century*, Nagoya, Japan, September 21-22, 2000.
3. R.G.Alargova, S. Deguchi, K. Tsujii, and K. Horikoshi, "Colloidal Dispersions of Fullerenes in Polar Organic Solvents", *International Conference on Colloid and Surface Science dedicated to 25th Anniversary of Division of Colloid and Surface Chemistry*, Tokyo, Japan, November 5-8, 2000.
4. R.G.Alargova, S. Deguchi, K. Tsujii, "Colloid Stability in Sub- and Supercritical Water Studied by Dynamic Light Scattering", *6th Conference on Supercritical Fluids and Their Applications*, Maiori (Amalfi Coast Salerno), Italy, September 9-12, 2001.
5. R.G.Alargova, S. Deguchi, K. Tsujii, "Influence of High Pressure and Temperature on the Stability of Colloidal Particles Dispersed in Water", *XV Conference of European Colloid and Interface Society*, Coimbra, Portugal, September 16-21, 2001.
6. R.G. Alargova, S. Deguchi, K. Tsujii, "Dynamic Light Scattering Study of Colloids in Sub- and Supercritical Water", *Informal Meeting on the Fundamental Aspects of Supercritical Fluids*, December 5-7, 2001, Kyoto, Japan.
7. R.G.Alargova, K.Tsujii, "Behavior of Colloids in Supercritical Water: an Attempt to Study Diffusion Coefficients Using DLS", *55th Annual Meeting of Colloid and Surface Chemistry Division*, The Chemical Society of Japan, 2002.
8. R.G.Alargova, K.Tsujii, "Behavior of Colloids in Supercritical Water: an Attempt to Study Diffusion Coefficients Using DLS", *XVI Conference of European Colloid and Interface Society*, Paris, France, September 22-27, 2002.