

EUROPEAN  
CURRICULUM VITAE  
FORMAT



PERSONAL INFORMATION

Name **KRALCHEVSKY, PETER ATANASSOV**  
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Nationality **Bulgarian**  
Date of birth **23 OCTOBER 1956, GABROVO, BULGARIA**

WORK EXPERIENCE

- Dates (from – to) **APRIL – DECEMBER 1981**
- Name and address of employer **Sofia University “St. Kliment Ohridski”, Faculty of Chemistry, Department of Physical Chemistry**
- Type of business or sector **Research in Physical and Colloid Chemistry**
- Occupation or position held **PHYSICIST**
- Main activities and responsibilities **Theoretical and experimental investigations on thin liquid films**
  
- Dates (from – to) **1982 – 1984**
- Name and address of employer **Sofia University “St. Kliment Ohridski”, Faculty of Chemistry, Dept. of Physical Chemistry and Laboratory of Thermodynamics and Physicochemical Hydrodynamics**
- Type of business or sector **Research in Physical Chemistry of Colloids and Interfaces**
- Occupation or position held **PH.D. STUDENT**
- Main activities and responsibilities **Investigations on capillary phenomena, thin liquid films, contact angles and line tension**
  
- Dates (from – to) **1985 – 1991**
- Name and address of employer **Sofia University “St. Kliment Ohridski”, Faculty of Chemistry, Laboratory of Thermodynamics and Physicochemical Hydrodynamics**
- Type of business or sector **Research in Physical and Colloid Chemistry and Teaching**
- Occupation or position held **RESEARCH ASSOCIATE III-I DEGREE**
- Main activities and responsibilities **Fundamental and Applied Research, and Teaching**
  
- Dates (from – to) **1991 – 2002**
- Name and address of employer **Sofia University “St. Kliment Ohridski”, Faculty of Chemistry, Laboratory of Thermodynamics and Physicochemical Hydrodynamics and Laboratory of Chemical Physics and Engineering**
- Type of business or sector **Research in Physical and Colloid Chemistry and Teaching**
- Occupation or position held **ASSOCIATE PROFESSOR**
- Main activities and responsibilities **Fundamental and Applied Research, and Teaching**
  
- Dates (from – to) **2002 – until now**

- Name and address of employer Sofia University "St. Kliment Ohridski", Faculty of Chemistry, Laboratory of Thermodynamics and Physicochemical Hydrodynamics
  - Type of business or sector Research in Physical and Colloid Chemistry and Teaching
  - Occupation or position held FULL PROFESSOR
- Main activities and responsibilities Fundamental and Applied Research, and Teaching

- Dates (from – to) 2015, June – until now
- Occupation or position held DEAN OF THE FACULTY OF CHEMISTRY AND PHARMACY, SOFIA UNIVERSITY

### TEACHING EXPERIENCE

- Dates (from – to) 1984 – until now
  - University Sofia University "St. Kliment Ohridski"
    - Faculty Faculty of Chemistry
  - Courses Taught Mathematical Methods in Chemistry; Transport Phenomena; Chemical Statistical Thermodynamics; Mathematics for the degree courses "Ecological Chemistry" and Pharmacy; Nanocolloids; Colloidal Crystals and Nanomaterials; Disperse Systems and Separation Processes; Interfacial Phenomena and Disperse Systems (Nagayama Project, Tsukuba, Japan, 1992 and in Physical Faculty, Sofia Univ.); Physical Chemistry (Shumen Univ.)

### SCIENTIFIC PUBLICATIONS

203 publications, including one book (Elsevier), 14 chapters in books and two patents; see attached list; 221 presentations at scientific conferences, including 4 plenary, 45 invited and keynote lectures; 80 oral presentations and 94 posters; 42 invited lectures in foreign universities and research institutes; > 8000 citations in the scientific literature; h-index = 41 (18 Dec. 2016).

### EDUCATION AND TRAINING

- Dates (from – to) 1971 – 1974
  - Name and type of organization providing education and training Aprilov National High School (1971/72) and Mathematical High School (1972/74) in Gabrovo, Bulgaria
  - Principal subjects/occupational skills covered Mathematics, Numerical Methods, Physics, Chemistry, Biology, Bulgarian and English
    - Title of qualification awarded Computer Programmer
  - Level in national classification (if appropriate)
- Dates (from – to) 1976 – 1981
  - Name and type of organization providing education and training Sofia University "St. Kliment Ohridski", Faculty of Physics, Student in Physics
  - Principal subjects/occupational skills covered Mathematics; Mathematical Methods of Physics; Theoretical Mechanics; Atomic Physics; Electrodynamics; Thermodynamics and Statistical Physics; Quantum Mechanics
    - Title of qualification awarded M.Sc. in Physics with Specialization in Atomic Physics
  - Level in national classification (if appropriate)
- Dates (from – to) 1982 – 1984
  - Name and type of organization providing education and training Sofia University "St. Kliment Ohridski", Faculty of Chemistry, Ph.D. Student
  - Principal subjects/occupational skills covered Research in Physical Chemistry of Colloids and Interfaces
    - Title of qualification awarded Ph.D. in Physics after defence of a Thesis entitled: "Influence of Curvature on the Thermodynamic Properties of Thin Liquid Films"

## PERSONAL SKILLS AND COMPETENCES

*Acquired in the course of life and career  
but not necessarily covered by formal  
certificates and diplomas.*

### MOTHER TONGUE

**BULGARIAN**

### OTHER LANGUAGES

- Reading skills
- Writing skills
- Verbal skills

#### ENGLISH

Excellent  
Excellent  
Very good

- Reading skills
- Writing skills
- Verbal skills

#### RUSSIAN

Excellent  
Very good  
Good

## SOCIAL SKILLS AND COMPETENCES

*Living and working with other people, in  
multicultural environments, in positions  
where communication is important and  
situations where teamwork is essential  
(for example culture and sports), etc.*

## ORGANISATIONAL SKILLS AND COMPETENCES

*Coordination and administration of  
people, projects and budgets; at work, in  
voluntary work (for example culture and  
sports) and at home, etc.*

## OTHER SKILLS AND COMPETENCES

*Competences not mentioned above.*

## DRIVING LICENCE(S)

YES

## ADDITIONAL INFORMATION: Awards and Honours

Recipient of the *Prof. A. Zlatarov Prize* of the Bulgarian Academy of Sciences and Sofia University for achievements in chemistry for 1990;  
*"St. Kliment Ohridski" University of Sofia Blue Ribbon Medal* for significant achievements in science, 2006.  
Annual award "Best Professor" (2007) and *THE HIGHEST NATIONAL AWARD "PYTHAGORAS" FOR SCIENTIFIC ACHIEVEMENTS* (2016) of the Bulgarian Ministry of Education and Science.  
Secretary of the European Colloid & Interface Society (ECIS) since September 2010.  
*2004 – 2012: CORRESPONDING MEMBER OF THE BULGARIAN ACADEMY OF SCIENCES (BAS)*  
*Since October 2012: FELLOW OF THE BULGARIAN ACADEMY OF SCIENCES (BAS)*

## ANNEX 1

### List of the Scientific Publications by Peter A. Kralchevsky

1. P.A. Kralchevsky and A.V. Nikolov. *"Asymptotic Equations in a Model of Hadron Interaction"*. *Bulg. J. Phys.*, **9** (1982) 109-118.
2. P.A. Kralchevsky and A.V. Nikolov. *"Model Hadron Asymptotic Behaviour"*. *Bulg. J. Phys.*, **10** (1983) 3-12.
3. P.A. Kralchevsky and I.B. Ivanov. *"On the Mechanical Equilibrium between a Film of Finite Thickness and the External Meniscus"*. *Chem. Phys. Lett.*, **121** (1985) 111-115.
4. P.A. Kralchevsky and I.B. Ivanov. *"The Transition Region between a Thin Film and the Capillary Meniscus"*. *Chem. Phys. Lett.*, **121** (1985) 116-121.
5. P.A. Kralchevsky and I.B. Ivanov. *"Mechanical Properties of Curved Thin Liquid Films"*. *Ann. Univ. Sofia, Fac. Chem.*, **78** (1984) 239- 268 (in Bulgarian).
6. P.A. Kralchevsky, I.B. Ivanov and A.D. Nikolov. *"Curvature Effects on the Attachment of a Particle to an Interface"*. VI International Tagung uber Grenzflächenactive Stoffe. Abhandlungen Akad. Wissensch. DDR, 1985, Nr. 1N, pp 87-94. Akademie Verlag, Berlin.
7. I.B. Ivanov, P.A. Kralchevsky, A.D. Nikolov. *"Film and Line Tension Effects on the Attachment of Particles to an Interface: I. Conditions for Mechanical Equilibrium of Fluid and Solid Particles at a Fluid Interface"*. *J. Colloid Interface Sci.*, **112** (1986) 97-107.
8. P.A. Kralchevsky, I.B. Ivanov and A.D. Nikolov. *"Film and Line Tension Effects on the Attachment of Particles to an Interface: II. Shapes of the Bubble (Drop) and the External Meniscus"*. *J. Colloid Interface Sci.*, **112** (1986) 108-120.
9. A.D. Nikolov, P.A. Kralchevsky and I.B. Ivanov. *"Film and Line Tension Effects on the Attachment of Particles to an Interface: III. Differential Interferometric Method for Determination the Shapes of Fluid Surfaces"*. *J. Colloid Interface Sci.*, **122** (1986) 122-131.
10. P.A. Kralchevsky, A.D. Nikolov and I.B. Ivanov. *"Film and Line Tension Effects on the Attachment of Particles to an Interface: IV. Experimental Studies with Bubbles in Solutions of Dodecyl Sodium Sulfate"*. *J. Colloid Interface Sci.*, **112** (1986) 132-143.
11. A.D. Nikolov, A.S. Dimitrov and P.A. Kralchevsky. *"Accuracy of the Differential Interferometric Measurements of Curvature - Experimental Study with Liquid Drops"*. *Optica Acta (J. Modern Optics)* **33** (1986) 1359-1368.
12. A.D. Nikolov, P.A. Kralchevsky, I.B. Ivanov and A.S. Dimitrov. *"Differential Interferometric Investigation of Curved Liquid Films"*. *AIChE Symposium Series* 252, vol. **82** (1986) 82-90.
13. P.A. Kralchevsky and I.B. Ivanov. *"Hydrostatics of Spherical Thin Films"*. - In: *Surfactants in Solution*, vol.6, (K.L. Mittal and P. Bothorel, Eds.), Plenum Press, New York, 1987, pp. 1549-1556.
14. A.D. Nikolov, P.A. Kralchevsky and I.B. Ivanov. *"A New Method for Measuring Film and Line Tensions"*.- In: *Surfactants in Solution*, Vol.6 (K.L. Mittal and P. Bothorel, Eds.), Plenum Press, New York, 1987, pp. 1537-1547.
15. I.B. Ivanov and P.A. Kralchevsky. *"Mechanics and Thermodynamics of Curved Thin Liquid Films"*. - In: *Thin Liquid Films* (I.B. Ivanov, Ed.), Marcel Dekker, New York, 1988, pp. 49-129.
16. A.D. Nikolov, D.T. Wasan, P.A. Kralchevsky and I.B. Ivanov. *"Ordered Structures in Thinning Micellar and Latex Foam Films"*. In: *Ordering and Organisation in Ionic Solutions* (N. Ise and I. Sogami, Eds.), World Scientific, Singapore, 1988, pp. 302-314.
17. C.D. Dushkin, K. Nagayama, T. Miwa and P.A. Kralchevsky, *"Colored Multilayers from Transparent Submicrometer Spheres"*, *Langmuir* **9** (1993) 3695 - 3701.
18. P. A. Kralchevsky. *"Micromechanical Description of Curved Interfaces, Thin Films and Membranes: I. Quasistatics"*. *J. Colloid Interface Sci.* **137**, (1990) 217-233

19. P.A. Kralchevsky and I.B. Ivanov. **"Micromechanical Description of Curved Interfaces, Thin Films and Membranes: II. Film Surface Tensions, Disjoining Pressure and Interfacial Stress Balance"**. *J. Colloid Interface Sci.* **137** (1990) 234-252.
20. A.D. Nikolov, P.A. Kralchevsky, I.B. Ivanov and D.T. Wasan. **"Ordered Micelle Structuring in Thin Films Formed from Anionic Surfactant Solutions: II. Model Development"**. *J. Colloid Interface Sci.*, **133** (1989) 13-22.
21. P.A. Kralchevsky, A.D. Nikolov, D.T. Wasan and I.B. Ivanov. **"Formation and Expansion of Dark Spots in Stratifying Foam Films"**. *Langmuir* **6** (1990) 1180-1189.
22. L.A. Lobo, A.D. Nikolov, A.S. Dimitrov, P.A. Kralchevsky and D.T. Wasan. **"Contact Angle of Air Bubbles Attached to an Air-Water Surface in Foam Applications"**. *Langmuir* **6** (1990) 995-1001.
23. I.B. Ivanov, A.D. Nikolov, P.A. Kralchevsky and N.D. Denkov. **"Reply to the Letter by Derjaguin and Churaev"**. *J. Colloid Interface Sci.* **134** (1990) 294-296.
24. A.S. Dimitrov, P.A. Kralchevsky, A.D. Nikolov and D.T. Wasan. **"Contact Angles of Thin Liquid Films – Interferometric Determination"**. *Colloids and Surfaces* **47** (1990) 299-321.
25. T.D. Gurkov and P.A. Kralchevsky. **"Surface Tension and Surface Energy of Curved Interfaces and Membranes"**. *Colloids and Surfaces* **47** (1990) 45-68.
26. P.A. Kralchevsky, N.D. Denkov, I.B. Ivanov and A.D. Nikolov. **"Attraction between Brownian Particles of Identical Charge in Colloid Crystals"**. *Chem. Phys. Letters*, **166** (1990) 452-458.
27. A.D. Nikolov, D.T. Wasan, N.D. Denkov, P.A. Kralchevsky and I.B. Ivanov. **"Drainage of Foam Films in the Presence of Non-ionic Micelles"**. *Prog. Colloid Polym. Sci.* **82** (1990) 87-98.
28. N.D. Denkov, P.A. Kralchevsky, I.B. Ivanov and C.S. Vassilieff. **"Effect of Droplet Deformation on the Interactions in Microemulsions"**. *J. Colloid Interface Sci.* **143** (1991) 157-173.
29. P.A. Kralchevsky, N.D. Denkov, V.N. Paunov, O.D. Velev, I.B. Ivanov, H. Yoshimura and K. Nagayama, **"Formation of Two-Dimensional Colloid Crystals in Liquid Films under the Action of Capillary Forces"**, *J. Phys.: Condens. Matter* **6** (1994) A395-A402.
30. P.A. Kralchevsky, I.B. Ivanov and A.S. Dimitrov, **"Fluctuation-Dissipation Processes and Contact Angles of Thin Liquid Films"** *Chem. Phys. Letters* **187** (1991) 129-136.
31. C.D. Dushkin, I.B. Ivanov, P.A. Kralchevsky. **"Kinetics of the Interfacial Tension on Flat and Spherical Interfaces at Small Deviations from Equilibrium"**, *Ann. Univ. Sofia, Fac. Chem.* **84** (1992) 23-36.
32. A.S. Dimitrov, P.A. Kralchevsky, A.D. Nikolov, H. Noshi and M. Matsumoto. **"Contact Angle Measurements with Sessile Drops and Bubbles"**, *J. Colloid Interface Sci.* **145** (1991) 279-282.
33. P.A. Kralchevsky and T.D. Gurkov. **"The van der Waals Component of the Interfacial Bending Moment: I. Contribution of the Pressure Tensor Tails"**. *Colloids Surfaces*, **56** (1991) 101-118.
34. T.D. Gurkov, P.A. Kralchevsky and I.B. Ivanov. **"The van der Waals Component of the Interfacial Bending Moment: II. Model Development and Numerical Results"**, *Colloids Surfaces*, **56** (1991) 119-148.
35. P.A. Kralchevsky, T.D. Gurkov and I.B. Ivanov. **"The Interfacial Bending Moment: Thermodynamics and Contributions of the Electrostatic Interactions"**, *Colloids Surfaces*, **56** (1991) 149-176.
36. C.D. Dushkin, I.B. Ivanov, P.A. Kralchevsky, **"The Kinetics of the Surface Tension of Micellar Surfactant Solutions"**, *Colloids Surfaces* **60** (1991) 235-261.
37. E.S. Basheva, A.D. Nikolov, P.A. Kralchevsky, I.B. Ivanov and D.T. Wasan, **"Multi-Step-Wise Drainage and Viscosity of Macroscopic Films from Concentrated Micellar Solutions and Latex Suspensions"**, in *Surfactants in Solution*, K.L. Mittal, Ed., Vol.11, Plenum Press, New York, 1991, p. 467-479.
38. I.B. Ivanov, P.A. Kralchevsky, A.S. Dimitrov and A.D. Nikolov, **"Dynamics of Contact Lines in Foam Films"**, *Adv. Colloid Interface Sci.*, **39** (1992) 77-102.
39. J.K. Angarska, K.D. Tachev, I.B. Ivanov, P.A. Kralchevsky and E.F. Leonard, **"Red Blood Cell Interaction with a Glass Surface"**, in: *Cell and Model Membrane Interactions*, S. Okhi, Ed. in: Plenum Press, New York, 1991, p. 199-213.

40. I.B. Ivanov, A.S. Dimitrov, A.D. Nikolov, N.D. Denkov and P.A. Kralchevsky, **"Contact Angle, Film and Line Tension of Foam Films. I. Contact Angle Measurements"**, *J. Colloid Interface Sci.* **151** (1992) 446-461.
41. A.S. Dimitrov, A.D. Nikolov, P.A. Kralchevsky and I.B. Ivanov, **"Contact Angle, Film and Line Tension of Foam Films. II. Film and Line Tension Measurements"**, *J. Colloid Interface Sci.* **151** (1992) 462-476.
42. N.D. Denkov, I.B. Ivanov, P.A. Kralchevsky, and D.T. Wasan, **"A Possible Mechanism of Stabilisation of Emulsions with Solid Particles"**, *J. Colloid Interface Sci.* **150** (1992) 589-593.
43. P.A. Kralchevsky, V.N. Paunov, I.B. Ivanov and K. Nagayama, **"Capillary Meniscus Interactions between Colloidal Particles Attached to a Liquid-Fluid Interface"**, *J. Colloid Interface Sci.* **151** (1992) 79-94.
44. P.A. Kralchevsky, Y. Radkov and N. Denkov, **"Adsorption from Surfactant Solutions under Diffusion Control"**, *J. Colloid Interface Sci.* **161** (1993) 361-365.
45. P.A. Kralchevsky and V.N. Paunov, **"Contribution of Ionic Correlations to Excess Free Energy and Disjoining Pressure of Thin Liquid Films. I. Electric double Layer Inside the Film"**, *Colloids Surfaces* **64** (1992) 245-264.
46. V.N. Paunov, P.A. Kralchevsky **"Contribution of Ionic Correlations to Excess Free Energy and Disjoining Pressure of Thin Liquid Films. II. Electric Double Layer Outside the Film"**, *Colloids Surfaces* **64** (1992) 265-274.
47. D.T. Wasan, A.D. Nikolov, P.A. Kralchevsky, I.B. Ivanov, **"Universality in Film Stratification Due to Colloid Crystal Formation"**, *Colloids Surfaces*, **67** (1992) 139-145.
48. V.N. Paunov, P.A. Kralchevsky, N.D. Denkov, I.B. Ivanov and K. Nagayama, **"Capillary Meniscus Interaction between a Microparticle and a Wall"**, *Colloids Surfaces*, **67** (1992) 119-138.
49. P.A. Kralchevsky, **"Capillary Interactions and Two-Dimensional Ordering of Colloidal Particles"**, in: "Proceeding of the Annual Conference of the Electrochemical Society of Japan", Tokyo, p. 7-9, 1992.
50. N.D. Denkov, O.D. Velev, P.A. Kralchevsky, I.B. Ivanov, H. Yoshimura and K. Nagayama, **"Mechanism of Formation of Two-Dimensional Crystals from Latex Particles on Substrates"**, *Langmuir* **8** (1992) 3183-3190.
- 50a. O.D. Velev, N.D. Denkov, P.A. Kralchevsky, I.B. Ivanov, H. Yoshimura and K. Nagayama, **"Mechanism of Formation of Two-Dimensional Crystals from Latex Particles on Substrata"**, *Progress in Colloid & Polymer Science* **93** (1993) 366-367.
51. N.D. Denkov, O.D. Velev, P.A. Kralchevsky, I.B. Ivanov, K. Nagayama, H. Yoshimura, **"Two-Dimensional Crystallisation"**, *Nature (London)* **361**(6407) (1993) 26-26.
52. P.A. Kralchevsky, V.N. Paunov, N.D. Denkov, I.B. Ivanov and K. Nagayama, **"Energetical and Force Approaches to the Capillary Interactions between Particles Attached to a Liquid-Fluid Interface"**, *J. Colloid Interface Sci.*, **155** (1993) 420-437.
53. V.N. Paunov, P.A. Kralchevsky, N.D. Denkov and K. Nagayama, **"Lateral Capillary Forces Between Floating Submillimeter Particles"**, *J. Colloid Interface Sci.* **157** (1993) 100-112.
54. P.A. Kralchevsky, A.S. Dimitrov and K. Nagayama, **"Analytical Expressions for the Shape of Small Drops and Bubbles"**, *J. Colloid Interface Sci.* **160** (1993) 236-242.
55. P. A. Kralchevsky, J. C. Eriksson, S. Ljunggren, **"Theory of Curved Interfaces and Membranes: Mechanical and Thermodynamical Approaches"**, *Adv. Colloid Interface Sci.*, **48** (1994) 19-59.
56. S. Ljunggren, J. C. Eriksson, P. A. Kralchevsky, **"Tracing the Connection between Different Expressions for the Laplace Pressure of a General Curved Interfaces"**, *J. Colloid Interface Sci.* **161** (1993) 133-137.
57. T.D. Gurkov, P.A. Kralchevsky, I.B. Ivanov, **"Surface Bending Moments and the Interfacial Composition in Emulsion Systems"**, *Proc. First World Congress on Emulsions*, Paris, 1993, 2-31, 132.

58. T. Horozov, K. D. Danov, P. A. Kralchevsky, I. B. Ivanov, R. P. Borwankar, **"A Local Approach in Interfacial Rheology: Theory and Experiment."** *Proc. First World Congress on Emulsions*, Paris, 1993; Vol. 2, paper 3-20-137.
59. P.A. Kralchevsky and K. Nagayama, **"Capillary Forces between Colloidal Particles"**, *Langmuir* **10** (1994) 23-36.
60. O.D. Velev, N.D. Denkov, V.N. Paunov, P.A. Kralchevsky and K. Nagayama, **"Direct Measurement of Lateral Capillary Forces"**, *Langmuir* **9** (1993) 3702-3709.
61. P.A. Kralchevsky, V.N. Paunov, N.D. Denkov and K. Nagayama, **"Capillary Image Forces: I. Theory"**, *J. Colloid Interface Sci.* **167** (1994) 47-65.
62. O.D. Velev, N.D. Denkov, V.N. Paunov, P.A. Kralchevsky, K. Nagayama, **"Capillary Image Forces: II. Experiment"**, *J. Colloid Interface Sci.* **167** (1994) 66-73.
63. G.S. Lazarov, N.D. Denkov, O.D. Velev, P.A. Kralchevsky, K. Nagayama, **"Formation of Two-Dimensional Structures from Colloid Particles on Fluorinated Oil Substrate"**, *J. Chem. Soc. Faraday Transactions* **90** (1994) 2077-2083.
64. P.A. Kralchevsky, V.N. Paunov, K. Nagayama, **"Lateral Capillary Interaction between Particles Protruding from a Spherical Liquid Layer"**, *J. Fluid Mech.* **299** (1995) 105-132.
65. P.A. Kralchevsky, K.D. Danov and I.B. Ivanov, **"Thin Liquid Film Physics"**, in: "Foams: Theory, Measurements and Applications", R.K. Prud'homme & S.A. Khan, Eds.; Marcel Dekker, New York, 1995, p. 1-97.
66. D.N. Petsev, N.D. Denkov and P.A. Kralchevsky, **"Flocculation of Deformable Emulsion Droplets: II. Interaction Energy"**, *J. Colloid Interface Sci.* **176** (1995) 201-213.
67. P.A. Kralchevsky, C.D. Dushkin, V.N. Paunov, N.D. Denkov and K. Nagayama, **"Lateral Capillary Forces between Colloidal Particles Incorporated in Liquid Films or Lipid Bilayers"**. *Prog. Colloid Polymer Sci.* **98** (1995) 12-17.
68. N.D. Denkov and P.A. Kralchevsky, **"Colloid Structural Forces in Thin Liquid Films"**. *Prog. Colloid Polymer Sci.* **98** (1995) 18-22.
69. P.A. Kralchevsky, V.N. Paunov, N.D. Denkov and K. Nagayama, **"Stresses in Lipid Membranes and Interactions between Inclusions"**. *J. Chem. Soc. Faraday Trans.* **91** (1995) 3415-3432.
70. P.A. Kralchevsky and N.D. Denkov, **"Analytical Expression for the Oscillatory Structural Surface Force."** *Chem. Phys. Letters* **240** (1995) 385-392.
71. A.D. Nikolov, D.T. Wasan, P.A. Kralchevsky and I.B. Ivanov, **"Foam Film Stability: Role of Micellar Interaction on the Formation and Expansion of Spots in Stratifying Film. An Overview"**, in: "Fluid Physics, Lecture Notes of Summer Schools", M.G. Velarde and C.I. Christov, eds. World Scientific, London, 1995, pp. 209 - 228.
72. C.D. Dushkin, P.A. Kralchevsky, H. Yoshimura and K. Nagayama. **"Lateral Capillary Forces Measured by Torsion Microbalance"**. *Phys. Rev. Lett.* **75** (1995) 3454-3457.
73. C.D. Dushkin, P.A. Kralchevsky, V.N. Paunov, H. Yoshimura and K. Nagayama. **"Torsion Balance for Measurement of Capillary Immersion Forces"**. *Langmuir* **12** (1996) 641-651.
74. T.D. Gurkov, P.A. Kralchevsky and K. Nagayama, **"Formation of Dimers in Lipid Monolayers"**. *Colloid Polymer Sci.* **274** (1996) 227-238.
75. P.A. Kralchevsky, T.D. Gurkov and K. Nagayama, **"Electric Component of the Interfacial Bending Moment and Curvature Elastic Moduli"**. *J. Colloid Interface Sci.* **180** (1996) 619-622.
76. V.N. Paunov, R.I. Dimova, P.A. Kralchevsky, G. Broze and A. Mehreteab. **"The Hydration Repulsion between Charged Surfaces as an Interplay of Volume Exclusion and Dielectric Saturation Effects"**. *J. Colloid Interface Sci.* **182** (1996) 239-248.
77. P.A. Kralchevsky, **"Comments on the Conditions for Stable Attachment of Fluid Particles to Solid Surfaces"** *Langmuir* **12** (1996) 5951-5955.

78. K.D. Danov, P. Vlahovska, T. Horozov, C.D. Dushkin, P. A. Kralchevsky, A. Mehreteab and G. Broze. **"Adsorption from Micellar Surfactant Solutions: Nonlinear Theory and Experiment"**, *J. Colloid Interface Sci.* **183** (1996) 223-235.
79. N.D. Denkov, P.A. Kralchevsky and I.B. Ivanov. **"Lateral Capillary Forces and Two-Dimensional Arrays of Colloidal Particles and Protein Macromolecules"**, *J. Disp. Sci. Technol.*, **18** (1997) 577- 591.
80. T.S. Horozov, P.A. Kralchevsky, K.D. Danov, and I.B. Ivanov. **"Interfacial Rheology and Kinetics of Adsorption from Surfactant Solutions"**, *J. Disp. Sci. Technol.*, **18** (1997) 593-607.
81. T.D. Gurkov and P.A. Kralchevsky. **"Mechanics and Thermodynamics of Interfaces, Thin Liquid Films and Membranes"**, *J. Disp. Sci. Technol.*, **18** (1997) 609-623.
82. D.N. Petsev, N.D. Denkov, P.A. Kralchevsky. **"DLVO and Non-DLVO Surface Forces"**, *J. Disp. Sci. Technol.*, **18** (1997) 647-659.
83. P.A. Kralchevsky, **"Lateral Forces Acting between Particles in Liquid Films or Lipid Membranes"**, *Advances in Biophysics*, **34** (1997) 25-39.
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The publications by Peter Kralchevsky have been cited over 8000 times in the scientific literature; Scopus: h-index = 41 (December 18, 2016);

## Patents

1. K. Nagayama, and P.A. Kralchevsky *"Wettability Apparatus for Particles"*, Assignee: Japanese Research and Development Corporation (JRDC); Japanese Patent – July 1993; International Patent – September 1993.
2. K.D. Danov, P.A. Kralchevsky, and N.C. Christov *"Anionic tenside sodium dodecyl sulphate solution's liquid gas boundary surface characteristics determining method, involves measuring universal age through nominal age and constant, and determining constant using tensiometric measurements"*, Assignee: Krüss GmbH, Hamburg; German Patent No. DE102006018782-A1, April 2006.

## Organisation of international conferences and membership in scientific committees

- Organiser of Workshop "Emulsification Process and Choice of Equipment" at the *Second World Congress on Emulsions*, Bordeaux, France, 23-26 September 1997.
- Member of the Scientific Committee of *Pan-European Formulation Conference* (The Royal Society of Chemistry, London), Formula IV; London, 3-7 July, 2005.

- Organiser of Workshop No. 4.3 "New Emulsifiers: New Chemistry, Polymers, Particles" at the *Fourth World Congress on Emulsions*, Lyon, France, 3-6 October 2006.
- Member of the Scientific Committee of the *3<sup>rd</sup> International Conference on Colloid Chemistry and Physicochemical Mechanics*, Moscow, Russia, 24-28 June 2008.
- Member of the Scientific Committee of the *7<sup>th</sup> Eufoam Conference*, European Space Agency (ESA), Noordwijk, The Netherlands, 8-10 July 2008.
- Member of the Scientific Committee of the *22<sup>nd</sup> Conference of the European Colloid and Interface Society (ECIS)*, Krakow, Poland, 31 August – 5 September 2008.
- Member of the Editorial Board of the international journal *Advances in Colloid and Interface Science* (Elsevier) since 2008.
- Chair of the Management Committee of the ESF COST Action D43 *Colloid and Interface Science for Nanotechnology* (with participants from 32 countries) since November 2008.
- Organizer (jointly with N. Denkov) of the *8<sup>th</sup> Eufoam Conference*, together with Workshop of the Workgroups of COST Action D43 *Colloid and Interface Science for Nanotechnology*, Borovets, Bulgaria, 12-16 July 2010.
- Member of the Scientific Committee of the *24<sup>th</sup> Conference of the European Colloid and Interface Society (ECIS)*, Prague, Czech Republic, 5 – 10 September 2010.
- Elected Secretary of the *European Colloid and Interface Society (ECIS)* at the Conference in Prague, Czech Republic, (2010-2016).
- Organizer of the COST D43 Training School *Fluids and Solid Interfaces*, Sofia, Bulgaria, 12–15 April 2011.
- Member of the Scientific Committee of the *25<sup>th</sup> Conference of the European Colloid and Interface Society (ECIS)*, Berlin, Germany, 4 – 9 September 2011.
- Member of the International Advisory Committee of the International Conference *Advanced Materials and Nanotechnology*, Kathmandu, Nepal, 21 – 23 October 2011.
- Vice Chair of the Management Committee of the ESF COST Action CM1101 *Colloidal Aspects of Nanoscience for Innovative Processes and Materials* (with participants from 35 countries) since January 2012.
- Organizer of the International Workshop "Discussion on Hydration Forces" COST CM1101, Sofia, Bulgaria, 1–4 April 2012.
- Member of the Scientific Committee of Workshop WG3 & WG4 Meeting: *Nano-biocolloidal materials and non-equilibrium self-assembly (CM1101)*, Barcelona, Spain, 23 – 24 May 2012.
- Member of the International Advisory Board of the *4<sup>th</sup> International Conference on Colloid Chemistry and Physico-chemical Mechanics*. Moscow State University, Moscow, Russia, 1-5 July 2013.
- Member of the Scientific Committee of the *27<sup>th</sup> Conference of the European Colloid and Interface Society (ECIS)*, Sofia, Bulgaria, 1–6 September 2013.
- Member of the Program Committee of the International Scientific Conference UNITECH 2016, Gabrovo, Bulgaria, 18–19 November 2016
- Member of the Scientific Committee of the *31<sup>st</sup> Conference of the European Colloid and Interface Society (ECIS)*, Madrid, Spain, 3–8 September 2017.
- Member of the Scientific Committee of the *16<sup>th</sup> Conference of the International Association of Colloid and Interface Scientists (IACIS)*, Rotterdam, Netherlands, 21–25 May 2018.
- Member of the Council of the European Colloid and Interface Society (ECIS) and Secretary of ECIS <http://www.ecis-web.eu/secretaries.htm> (2010-present).
- Member of the Council of the International Association of Colloid and Interface Scientists (IACIS) <http://www.iacis.nl/> (2015-present).

(Last updated: 18 December 2016)