

MIKHAIL A. ANISIMOV – CURRICULUM VITAE

University of Maryland, College Park, MD 20742, USA
Phone: (301) 405-8049 Fax: (301) 314-9404 E-mail: anisimov@umd.edu
Web <http://www.terpconnect.umd.edu/~anisimov>

January 10, 2012

EDUCATION AND DEGREES

Kurchatov Institute of Atomic Energy, Russia	D.Sc. (Molecular and Thermal Physics)	1974
Moscow State University, Russia	Ph.D. (Physical Chemistry/Chemical Physics)	1969
Grozny Petroleum Institute, Russia	Engineer Diploma, <i>Cum Laude</i> (Chemical Engineering)	1964

PRESENT POSITIONS

Professor since 01/2002	Department of Chemical & Biomolecular Engineering and Institute for Physical Science & Technology, University of Maryland, College Park
Affiliate Professor since 04/2005	Department of Chemistry & Biochemistry, University of Maryland, College Park
Adjunct Professor since 06/1998	Chemical Physics Program, University of Maryland, College Park

PREVIOUS POSITIONS

Distinguished Visiting Professor 08/2008-07/2009	Department of Chemical Engineering, The Petroleum Institute, Abu Dhabi, UAE
Guest Researcher 07/2002-07/2008	National Institute of Standards and Technology, Gaithersburg, Maryland, USA
Research Scientist and Affiliate Professor 1996– 2001	Institute for Physical Science & Technology and Department of Chemical Engineering, University of Maryland, College Park, USA
Visiting Professor 1994-1995	Institute for Physical Science and Technology, University of Maryland, College Park, USA
Department Head 1989-1993	Department of Physics, Institute for Oil and Gas Research of the Russian Academy of Sciences, Moscow, U.S.S.R./Russia
Visiting Scholar 09/1987-03/1988	Center of Material Science and Engineering, Massachusetts Institute of Technology, Cambridge, MA, USA
Professor and Chair 1978-1988	Department of Physics, Moscow State Academy of Oil and Gas, U.S.S.R.
Affiliate Professor 1975-1977	Moscow State University, Department of Physical Chemistry, U.S.S.R.
Head of Laboratory 1971-1977	Institute for Physical and Radio-Technical Measurements of the U.S.S.R. National Bureau of Standards, Mendeleev, U.S.S.R.
Research Associate 1969-1971	Institute for Physical-Technical and Radio-Technical Measurements of the U.S.S.R. National Bureau of Standards, Mendeleev, U.S.S.R.
Teaching and Research Assistant 1965-1968	Department of Physical Chemistry, Moscow State University, U.S.S.R.

RESEARCH, SCHOLARLY AND CREATIVE ACTIVITIES

a. Publications (see Attachment)

More than 200 publications (books, chapters in books, reviews, encyclopedia articles, journal and symposium articles).
Citation Index (without self-citation) and Hirsch index for 161 journal publications: 2,304; H-index 28 (Source: WEB
OF KNOWLEDGE 1/10/2012)

b. Research Grants

NSF (09/01/2010-08/31/10013) PI: Mesoscale Structures and Long-living Inhomogeneities in Aqueous Solutions (\$420,000)

IAPWS (01/01/10-06/30/10) PI: International Cooperative Project on Thermodynamics of Supercooled Water (\$18,000).

ACS, Petroleum Research Fund (09/01/08-08/31/10) PI: Thermodynamics of Curved Interfaces (\$100,000).

NASA (04/01/03-03/31/08) PI: Experimental Investigation of Impurity Effects on Two-Phase Isochoric Heat Capacity near the 3He critical point (\$380,000).

NIST (04/01/01-09/23/03) PI: Acoustic Study of Near-Critical Fluids (\$167,000).

DOE (12/15/00 -31/03/04) Co-PI: Crossover Critical Phenomena in Molecular and Complex Fluids (\$ 432,000).

NSF (8/1/98-7/31/01), Co-PI: Experimental Study of Criticality and Crossover phenomena in Complex Fluids (\$413,000).

DOE (12/15/97-12/14/00), Co-PI: Thermophysical Properties of Fluids and Fluid Mixtures (\$420,000).

IAPWS (10/97-9/30/98) PI: International Cooperative Project on Scaled Equation of State for Near-Critical Mixtures of Heavy and Light Steam (\$20,000).

c. Fellowships, Prizes and Awards

Elected member of Cosmos Club	2011
Recognition of the Newtonian Society	2009
Poole and Kent Senior Teaching Award, University of Maryland, College Park	2007
International Travel Awards, University of Maryland, College Park	2000, 2004, 2007, 2011
Recognition for outstanding volunteer service to the American Institute of Chemical Engineers	2006
Foundation for Science and Technology International Award, Gunma University, Japan	2006
International Activity Award, University of Maryland, College Park	2005
Elected Fellow (“Academician”) of the International Academy of Refrigeration	2003
Elected Fellow of the American Association for the Advancement of Science	2002
Elected Fellow of the American Physical Society	1998
Elected Member of the New York Academy of Sciences	1995
DDAD Fellowship (visiting professor at München Technical University, Germany))	1993
IREX Fellowship (visiting scholar at MIT, USA)	1987
CNRS International Exchange Fellowship (visiting scholar at College de France, Paris and P. Pascal Center for Research, Bordeaux, France)	1985
Board of Honor, Gubkin State Academy of Oil and Gas, U.S.S.R.	1981
Professor of Physics Chair – Distinguished Academic Title awarded by the U.S.S.R. Supreme Testimonial Commission	1979
Silver Medal of the Exhibition of Nation's Achievements of the U.S.S.R.	1976
Senior Researcher in Thermophysics – Distinguished Research Scientist Title awarded by the U.S.S.R. Supreme Testimonial Commission	1973
Honor Graduate Student of Moscow State University	1968
Honor (“Red”) Diploma of Chemical Engineer	1964
Silver Medal of the National Student Research Conference (Moscow, U.S.S.R.)	1962

d. Editorial Boards

Honorable Member, Editorial Board of “International Journal of Liquid State Sciences”
Member, Editorial Board of "International Journal of Thermophysics"
Member, Editorial Board of "Phase Transitions"
Member, Editorial Board of "Molecular Crystals and Liquid Crystals"

TEACHING AND ADVISING

a. Courses taught

1978-1988 (Moscow, Russia)	Physics I, Physics II, and Physics III for engineering majors
Spring 1994 (UMD)	Elective Course “Critical Phenomena and Phase Transitions”
Falls 1994-1996, 1998, 1999 (UMD)	Undergraduate Course “Chemical Process Thermodynamics”

Falls 1997, 2000-2007, 2009 (UMD)	Graduate Course "Chemical Engineering Thermodynamics"
Falls 2004, 2006, 2010 (UMD)	Undergraduate Course "Chemical Engineering Thermodynamics II"
Springs 2000 and 2002 (UMD)	Undergraduate Course "Introduction to Engineering Design"
Spring 2000 (UMD)	Graduate Seminar in Chemical Physics Program: Statistical Physics
Springs 2001, 2010 (UMD)	Undergraduate Course "Transport Phenomena II" (Heat and Mass Transfer)
Springs 2003-2007, 2011 (UMD)	Elective Course "Mesoscopic and Nanoscale Thermodynamics"
Fall 2008 (Petroleum Institute, Abu Dhabi)	Graduate Course "Chemical Engineering Thermodynamics"
Summer 2009 (Petroleum Institute, Abu Dhabi)	Undergraduate Course "Fundamentals of Nanotechnology"
Falls 2010, 2011 and Spring 2011 (UMD)	Undergraduate Seminar: Chemical and Biomolecular Engineering

b. Advising

Research Advisor of 42 Ph.D. projects (list of Ph.D. theses, 1973-2010, is available upon request)
 Faculty Mentor, Undergraduate Research Assistant Program
 Undergraduate Advisor (Chemical & Biomolecular Engineering)

SERVICE

a. Professional

i. Offices and memberships held in professional organizations

- 1 American Physical Society (Fellow)
- 2 American Association for the Advancement of Science (Fellow)
- 3 International Academy of Refrigeration (Fellow)
- 4 American Chemical Society
- 5 IUPAC Subcommittee on Transport Properties, Corresponding Member
- 6 Director, National Capital Section of the American Institute of Chemical Engineers (till 2008)
- 7 Subcommittee on Properties of Water and Steam of the American Society of Mechanical Engineers
- 8 Council for Coordination in Thermophysical Research of the Russian Academy of Sciences
- 9 Newtonian Society
- 10 International Liquid Crystal Society

ii. Reviewing activities for agencies

Regular reviewer of research articles for Phys. Rev. Letters, Phys. Rev., J. Chem. Phys., J. Phys. Chem., and other international research journals. Reviewer of research proposals for NSF, DOE, and ACS.

iii. Program Chair, Member of Advisory Board, or Session Organizer

13th, 14th, 15th, 16th, 17th, and 18th Symposia on Thermophysical Properties, Boulder, Colorado, 1997, 2000, 2003, 2006, 2009, and 2011.

OSA Topical Meetings on Photon Correlation Spectroscopy, Capri, Italy, 1996; Vancouver, Canada, 2000; Amsterdam, The Netherlands, 2004.

AICHE 2000 Annual Meeting, Los Angeles (Thermodynamics of Polymers II and III).

Mid-Atlantic Meeting on Thermodynamics, College Park, Maryland, 2002. (Program Chair)

AICHE 2002 Annual Meeting, Indianapolis (Thermodynamic Properties and Phase Behavior II).

AICHE 2004-2006 Annual Meetings, Austin, Cincinnati, and San Francisco (Thermodynamics at Nanoscale I and II).

AICHE 2011 Annual Meeting, Minneapolis, Minnesota, (Session in honor of J. V. Sengers).

International Meeting on Thermodynamics (Thermo-2005), College Park, Maryland, April 2005 (Program Chair).

International Conferences "Physics of liquid matter: Modern Problems", Kiev, Ukraine May 2005 and 2010.

11th Russian Conference on Thermophysical Properties, October 2005, St.-Petersburg, Russia

International Conference on Chemical Thermodynamics, Suzdal, Russia, July 2007.

15th International Conference on the Properties of Water and Steam, Berlin, Germany September, 2008.

International Conference on Supercritical Fluids, Suzdal, Russia, September 2009.

iv. Keynote and Invited Conference Lecturer (since 2000)

International Congress on "Scattering Studies of Mesoscopic Scale Structure and Dynamics in Soft Matter", Messina, Italy, November 2000.

14th Symposium on Thermophysical Properties, Boulder, Colorado, 2000.

NATO Advanced Research Workshop "New kinds of phase transitions: transformations in disordered substances", Moscow, Russia, May 2001.

Scaling Concepts and Complex Systems, Merida, Mexico, July 2001.

76th International Bunsen Discussion Meeting "Global Phase Diagrams", Walberberg, Germany, August 2001.

NATO Advanced Research Workshop "Nonlinear Dielectric Phenomena in Complex Liquids, Ustron-Jaszowiec, Poland, May 2003.

15th Symposium on Thermophysical Properties, Boulder, Colorado, June 2003 (keynote speaker).

International Workshop on Dynamics in Complex Fluids, Princeton, August 2003.

International Conference on Applied Statistical Physics, Puerto Vallarta, Mexico, August 2003.

International Conference on the Properties of Water and Steam, Kyoto, Japan, August 2004.

3rd International Conference "Physics of liquid matter: Modern Problems", Kiev, Ukraine May 2005 (keynote speaker).

Gordon Research Conference on Liquid Crystals, New Hampshire, June 2005.

NATO Advanced Research Workshop "Soft Matter under Exogenic Impacts, Odessa, Ukraine, October 2005.

7th Ibero-American Workshop on Complex Fluids and their Applications, Playa del Carmen, Mexico, October 2005.

Landau Days-2006, Chernogolovka, Russia, June 2006.

16th Symposium on Thermophysical Properties, Boulder, Colorado, July 2006.

International Conference on Chemical Thermodynamics, Suzdal, Russia, July 2007 (keynote speaker).

15th International Conference on the Properties of Water and Steam, Berlin, Germany September, 2008.

AIChE 2006 Annual Meeting, San Francisco and AIChE 2008 Annual Meeting, Philadelphia.

International Conference on Supercritical Fluids, Suzdal, Russia, September 2009 (keynote speaker)

5th International Conference "Physics of liquid matter: Modern Problems", Kiev, Ukraine May 2010 (keynote speaker).

European Conference on Applied Thermodynamics, St. Petersburg, Russia (June 2011).

v. Invited Seminar Speaker

Harvard University, MIT, Bell Labs, München Technical University, Moscow State University, Russian Academy of Sciences, University of Erlangen-Nürnberg, University of Salzburg, NIST, NIH, University of Delaware, Exxon Research Lab, Oak Ridge National Lab, Caltech-JPL, John Hopkins University, University of Madrid, Technical University of Delft, University of Waterloo, University of New York at Stony Brook, University of New York at Binghamton, Cornell University, College of Wooster, University of Essen, Ruhr University, Jülich Nuclear Research Center, University of Colorado at Boulder, Perdue University, Rice University, Los Alamos National Lab, Princeton University, University of Edinburgh (UK), Cambridge University (UK), University of Loughborough (UK), University of Bremen (Germany), Max-Planck Institute (Mainz, Germany), ESRF (Grenoble, France), University of Tokyo, Gunma University (Japan), University of Kyoto, University of California at Santa Barbara, University of Virginia (Charlottesville), University of Rome "Tor Vergata" (Italy), International Centre of Theoretical Physics (Trieste, Italy), University of Ljubljana (Slovenia), University of California at Los Angeles, Yale University, Boston University, Sankt-Petersburg State University, University of Buenos Aires.

vi. International Collaboration

Russian Academy of Sciences, Indian Institute of Physics, Czech Academy of Sciences, University of Buenos Aires (Argentina), Technical University of Delft (The Netherlands), Ruhr University (Germany), University of Vigo (Spain), University of Bremen (Germany), University of Kyoto and Gunma University (Japan), University of Barcelona (Spain), Leuven Catholic University (Belgium), Petroleum Institute, Abu Dhabi (UAE).

vii. Consulting

Exxon 1998, Shell 1999, Caltech-NASA (Jet Propulsion Laboratory) 1999-2006, Institute for Regulatory of Science 2001, GAF Corporation 2003-2004, Photocor Instruments 2000-2011.

b. UMD Campus

University of Maryland-College Park Senate, 2006-2008

APT Committee (A. J. Clark School of Engineering) 2006-2008
University of Maryland Fulbright Student Selection Committee
Faculty Salary Committee (Institute for Physical Science and Technology)
Ph.D. and MS Committees (Chemical Physics Program and Chemical Engineering Program)
Graduate qualifying exams (Chemical Physics Program)
Research Aptitude Exams (Chemical Engineering Program)
General Education - Natural Sciences Faculty Board 2011

c. Communal service

Member of the Prince George's County Literacy Council
PG's County High School Science Project Advisor

MIKHAIL A. ANISIMOV – PUBLICATIONS
(Attachment to Curriculum Vitae, January 10, 2012)

a. Books

i. Books authored

1. M. A. Anisimov, "Critical Phenomena in Liquids and Liquid Crystals", Gordon & Breach Science Publishers, 1991, 431 pages. (Revised and updated English Edition. First Russian edition: Nauka, Moscow, 1987). Cited by 433 (Google, January 2012).
2. M. A. Anisimov, V. A. Rabinovich, and V. V. Sychev, "Thermodynamics of the Critical State of Individual Substances", English Edition: CRC Press, Boca Raton, 1995, 171 pages. (Russian Edition: Energoatomizdat, Moscow, 1990).

ii. Chapters in books

1. M. A. Anisimov and J. V. Sengers, "Critical region", Chapter 11 in "*Equations of State for Fluids and Fluid Mixtures*", J. V. Sengers, R. F. Kayser, C. J. Peters, and H. J. White, Jr., eds., pp. 381-434, Elsevier, Amsterdam, 2000.
2. M. A. Anisimov and J. V. Sengers, Chapter 4 in "Critical and crossover phenomena in fluids and fluid mixtures", in "*Supercritical Fluids – Fundamentals and Applications*", E. Kiran, P. G. Debenedetti, and C. J. Peters, eds., 89-121, Kluwer, Dordrecht, 2000.
3. M. A. Anisimov, J. V. Sengers, and J. M. H. Levelt Sengers, "Near-critical behavior of aqueous systems", as Chapter 2 in "*The Physical Properties of Aqueous Systems at Elevated Temperatures and pressures: Water, Steam and Hydrothermal Solutions*", D. A. Palmer, R. Fernandez-Prini, and A. H. Harvey, eds., pp. 29-72, Academic Press, 2004.
4. M. A. Anisimov, "Thermodynamics at the Meso- and Nanoscale" in *Dekker Encyclopedia of Nanoscience and Nanotechnology*, J. A. Schwarz, C. Contescu, and K. Putyera, eds., pp. 3893-3904, Marcel Dekker, New York, 2004.
5. I. K. Yudin and M. A. Anisimov, "Dynamic Light Scattering Monitoring of Asphaltene Aggregation in Crude Oils and Hydrocarbon Solutions". Chapter 17 in *Asphaltene, Heavy Oils and Petroleomics*, edited by O. C. Mullins, E. Y. Sheu, A. Hammami, and A.G. Marshall, eds., pp 431-460, Springer, 2006.
6. M. A. Anisimov and J. Thoen, "Heat capacities in the critical region," Chapter 14 in *Heat Capacities of Liquids and Vapours*, E. Wilhelm and T. M. Trevor (Eds.), pp. 307-328, Royal Society of Chemistry, Cambridge, 2010.
7. H. Behnejad, J. V. Sengers, and M. A. Anisimov, "Thermodynamic Behavior of Fluids near Critical Points", Chapter 10 in *Applied Thermodynamics of Fluids*, A. Goodwin, C. Peters, and J. V. Sengers (Eds.), pp. 321-366, Royal Society of Chemistry, Cambridge, 2010.
8. M. A. Anisimov and C. E. Bertrand, "Thermodynamics of Fluids at Meso and Nano Scales" Chapter 7 in *Applied Thermodynamics of Fluids*, A. Goodwin, C. Peters, and J. V. Sengers (Eds.), pp. 172-214, Royal Society of Chemistry, Cambridge, 2010.

b. Articles in Refereed Journals

i. Review articles

1. M. A. Anisimov, "Investigation of the Critical Phenomena in Liquids", *Sov. Phys. Uspekhi (Adv. in Physics)*, **17**, 722-744 (1975).
2. M. A. Anisimov, E. E. Gorodetskii, and V. M. Zaprudskii, "Phase Transitions with Coupled Order Parameters", *Sov. Phys. Uspekhi (Adv. in Physics)*, **24**, 57-75 (1981).
3. M. A. Anisimov and S. B. Kiselev, "Thermophysical Properties of Liquids and Liquid Solutions in the Critical Region", *Sov. Tech. Rev. B - Therm. Phys.*, **1**, 337-424, Gordon & Breach Science Publishers, 1987.
4. M. A. Anisimov, "Critical Phenomena in Liquid Crystals", *Mol. Cryst. Liq. Cryst.* **162A**, 1-96 (1988), Special Topics XXXI.
5. M. A. Anisimov and S. B. Kiselev, "Universal Crossover Approach to Description of Thermodynamic Properties of Fluids and Fluid Mixtures", *Sov. Tech. Rev. B. - Thermal Phys.*, volume 3, part 2, 1-119, Gordon & Breach Science Publishers, 1992.

ii. Refereed journal articles

1. M. A. Anisimov and M. I. Shakhparonov, "Light Scattering at the Critical Point for the Formation of Two Layers in a Binary Liquid System", *Russ. J. Phys. Chem.* **40**, 1254-1256 (1966).
2. M. A. Anisimov, G. G. Muttik, D. K. Beridze, and M. I. Shakhparonov, "Critical Opalescence in *n*-Pentyl Alcohol-Nitromethane Mixtures", *Russ. J. Phys. Chem.* **44**, 19-22 (1970).
3. M. A. Anisimov and D. K. Beridze, "Critical Opalescence in an *n*-Pentyl Alcohol-Nitromethane Mixture. II. Analysis and Discussion of the Results", *Russ. J. Phys. Chem.* **44**, 236-238 (1970).
4. M. A. Anisimov and D. K. Beridze, "Critical Opalescence in *n*-Pentyl Alcohol-Nitro-methane Mixtures. III. Degree of Depolarization", *Russ. J. Phys. Chem.* **44**, 344-346 (1970).
5. M. A. Anisimov, A. V. Voronel, and E. E. Gorodetskii "Isomorphism of Critical Phenomena", *JETP* **33**, 605-612 (1971).
6. M. A. Anisimov, "Thermodynamic Properties of Binary Solutions Along the Critical Liquid-Gas Equilibrium Line", *Russ. J. Phys. Chem.* **45**, 439-441 (1971).
7. M. A. Anisimov "Thermodynamics of Critical Phenomena in Solutions. The Choice of Thermodynamic Variables", *Russ. J. Phys. Chem.* **45**, 877-878 (1971).
8. M. A. Anisimov, A. V. Voronel, N. S. Zaugol'nikova, and G. I. Ovodov "Specific Heat of Water Near the Melting Point and Ornstein-Zernike Fluctuation Corrections", *JETP Letters* **15**, 317-319 (1972).
9. M. A. Anisimov, A. V. Voronel, and T. M. Ovodova "Experimental Investigation of the Singularity of Specific Heat at the Critical Stratification Point of a Binary Mixture", *JETP* **34**, 583-587 (1972).
10. M. A. Anisimov, I. M. Aref'ev, A. V. Voronel, V.P. Voronov, Y. F. Kiyachenko, and I. L. Fabelinskii "Propagation of Sound Near the Binary-Mixture Stratification Critical Point", *JETP* **34**, 813-818 (1972).
11. M. A. Anisimov, A. V. Voronel, and T. M. Ovodova "The Behavior of Thermodynamic Quantities Near the Critical Line of an "Incompressible" Liquid Mixture", *JETP* **35**, 536-539 (1972).
12. M. A. Anisimov, E. E. Gorodetskii, and Y. F. Kiyachenko "Effect of Anomalies of the Kinetic Coefficients Near the Critical Points of Liquids on the Nature of High-Frequency Sound Propagation", *JETP*, **35**, 1014 (1972)
13. M. A. Anisimov, E. E. Gorodetskii, and N. G. Shmakov "Experimental Verification of the Isomorphism Hypothesis of Critical Phenomena", *JETP* **36**, 1143-1150 (1973).
14. I. M. Aref'ev, I. L. Fabelinskii, M.A. Anisimov, Y. F. Kiyachenko, and V.P. Voronov "Mandelstam-Brillouin Spectra in the Critical Mixture of Nitroethane-Isooctane", *Optics Comm.* **9**, 69-73 (1973).
15. M. A. Anisimov, V.P. Voronov, V. M. Malyshev, and V.V. Svadkovskii "Experimental Verification of the Dynamic Scale Theory of the Critical Point", *JETP Letters* **18**, 133-137 (1973).
16. M. A. Anisimov, A. T. Berestov, L. S. Veksler, B.A. Kovalchuk, and V. A. Smirnov "Scaling Theory and the Equation of State of Argon in a Wide Region Around the Critical Point", *JETP* **39**, 359-365 (1974).
17. M. A. Anisimov, A.M. Evtushenkov, Y. F. Kiyachenko, and I. K. Yudin "Investigation of the Correlation Function Near the Critical Point of the Binary Mixtures", *JETP Letters* **20**, 170-171 (1974).
18. M. A. Anisimov, V. S. Esipov, V. M. Zaprudskii, N. S. Zaugol'nikova, G. I. Ovodov, T. M. Ovodova, and A. L. Seifer "Anomaly in the Heat Capacity and Structural Phase Transformation of the Ordering Type in an Aqueous Solution of *t*-Butanol", *JETP Letters* **21**, 476-479 (1975).
19. M. A. Anisimov, S. R. Garber, V. S. Esipov, V. M. Mamnitskii, G. I. Ovodov, L. A. Smolenko, and E. L. Sorkin "Anomaly in the Heat Capacity and the Nature of the phase transition from an Isotropic liquid to a nematic Liquid crystal", *JETP*, **45**, 1042-1047 (1977).
20. M. A. Anisimov, V. S. Esipov, V. M. Zaprudskii, N. S. Zaugol'nikova, G. I. Ovodov, T. M. Ovodova, and A. L. Seifer "Anomaly in the Heat Capacity and Structural Phase Transformation of the Ordering Type in an Aqueous Solution of *t*-Butanol", *J. Struct. Chemistry* **18**, 663-670 (1977).
21. M. A. Anisimov, A. T. Berestov, V. P. Voronov, Y. F. Kiyachenko, B. A. Kovalchuk, V. M. Malyshev, and V. A. Smirnov "Critical Exponents of Liquids", *JETP* **49**, 844-848 (1979).
22. M. A. Anisimov and V. M. Zaprudskii "Effect of the Metal-Insulator Transition on the Critical State of Conducting Liquids", *Sov. Phys. Dokl.* **24**, 187-188 (1979).
23. M. A. Anisimov, V. M. Mamnitskii, and E. L. Sorkin "Tricritical Behavior of Nematic Crystals near the Transition to an Isotropic Liquid", *JETP Letters* **30**, 491-494 (1979).
24. M. A. Anisimov, Yu. F. Kiyachenko, G. L. Nikolaenko, and I. K. Yudin "Measurement of the Viscosity of Liquids and the Dimensions of Suspended Particles by the Method of Correlation Optical-Mixing Spectroscopy", *J. Eng. Phys. (U.S.S.R.)* **38**, 387-390 (1980).
25. M. A. Anisimov, V. M. Zaprudskii, G. A. Milner, and E. L. Ponomarenko "Orientational Phase Transitions in Ammonium Bromide at High Pressure", *JETP* **53**, 397-404 (1981).
26. M. A. Anisimov and R. U. Tankaev "Melting of Ice Near a Hydrophilic Surface", *JETP* **54**, 110-114 (1981).
27. M. A. Anisimov, V. M. Mamnitskii, and E. L. Sorkin "Anomalies of the Specific Heat in the Vicinity of the Phase Transition From Isotropic Liquid to Nematic Liquid Crystal", *J. Eng. Phys. (U.S.S.R.)* **39**, 1385-1390 (1981).
28. M. A. Anisimov and G. I. Ovodov "Mechanism of the Structural Phase Transformations in Aqueous

- Solutions of Electrolytes. Heat Capacity of the Tetrahydrofuran-Water", *J. Structural Chem.* **22**, 297-298 (1981).
29. M. A. Anisimov, A. T. Berestov, and S. B. Kiselev, "Isomorphous Equation of State in a Broad Vicinity of the Critical Point of a Binary Mixture", *JETP* **55**, 667-673 (1982).
30. M. A. Anisimov, "Nature of Nematic - Smectic A Phase Transition in Liquid Crystals", *JETP Letters* **37**, 11-14 (1983).
31. M. A. Anisimov, E. E. Gorodetskii, A. M. Evtushenkov, and Yu. F. Kiyachenko, "Experimental verification of Einstein Formula for the coefficient of molecular light scattering", *Optics and Spectroscopy (Russia)* **54**, 505-508 (1983).
32. M. A. Anisimov, E. E. Gorodetskii, and V. E. Podnek, "Effect of Smectic Fluctuations on Pre-transitional Phenomena in the Isotropic Phase of a Nematic Liquid Crystal", *JETP Letters* **37**, 414-418 (1983).
33. M. A. Anisimov, V.P. Voronov, Yu. F. Kiyachenko, and V. M. Merkulov "The Homogeneous Behavior of Absorption and Dispersion of Ultrasound in the Isotropic Phase of a Nematic Liquid Crystal", *Mol. Cryst. Liq. Cryst.* **104**, 273-279 (1984).
34. M. A. Anisimov, V.P. Voronov, A. S. Goldenstein, E. E. Gorodetskii, Y. F. Kiyachenko, and V.M. Merkulov, "Universality of Critical Dynamics in Nematic Liquid Crystals", *JETP* **60**, 1134-1142 (1984).
35. M. A. Anisimov, S. B. Kiselev, and I. G. Kostyukova "A Scaled Equation of State for Real Fluids in the Critical Region", *Int. J. Thermophys.* **6**, 465-481 (1985).
36. M. A. Anisimov, V. P. Voronov, A. O. Kulkov, and F. Kholmurodov, "Adiabatic Calorimetry Measurements in the Vicinity of the Nematic Smectic A -Smectic C Multicritical Point", *J. de Physique* **46**, 2137-2143 (1985).
37. M. A. Anisimov, V. I. Labko, G. L. Nikolaenko, and I. K. Yudin "Influence of Smectic Ordering on the Pretransitional Light-Scattering Behavior in the Isotropic Phase of Liquid Crystals", *Mol. Cryst. Liq. Cryst. Lett.* **2**, 77-83 (1985).
38. M. A. Anisimov, V. P. Voronov, A. O. Kulkov, and F. Kholmurodov, *JETP Letters* **41**, 302-306 (1985).
39. M. A. Gusev, Y. B. Americ, and M. A. Anisimov, "Nucleation and growth of mesophase in thermolysis of petroleum pitches", *Chemistry & Technology of Fuels & Oils*, **21**, 262-267 (1985)
40. M. A. Anisimov, V.P. Voronov, E. E. Gorodetskii, V. E. Podnek, and F. Kholmurodov, "Observation of the Halperin - Lubensky – Ma Effect in a Liquid Crystal", *JETP Letters* **45**, 425-429 (1987).
41. M. A. Anisimov, V. P. Voronov, A.O. Kulkov, V. N. Petukhov, and F. Kholmurodov, "High Resolution Adiabatic Calorimetry Measurements in the Vicinity of the Liquid Crystal Phase Transition", *Mol. Cryst. Liq. Cryst.* **150 B**, 399-418 (1987).
42. M. A. Anisimov, N. F. Kazakova, A. S. Kurlyandskii, and S. A. Pikin, "Thermodynamic Description of Phase Transition of Micelle Formation", *Sov. Phys. Crystallography* **32**, 645-649 (1987).
43. M. A. Anisimov "Universality of the Critical Dynamics and the Nature of the Nematic-Isotropic Phase Transition", *Mol. Cryst. Liq. Cryst.* **146**, 435-461 (1987).
44. M. A. Anisimov, S. A. Konev, V. I. Labko, G. L. Nikolaenko, G. I. Oliferenko, and I. K. Yudin, "Light-Scattering Study of Thermotropic Liquid Crystals and Micellar Solutions", *Mol. Cryst. Liq. Cryst.* **146**, 421-434 (1987).
45. M. A. Anisimov, V. I. Labko, G. L. Nikolaenko, and I. K. Yudin, "Renormalization of the Susceptibility in the Isotropic Phase of a Liquid Crystal Due to an Interaction of the Orientational and Translational Order Parameters", *JETP Letters* **45**, 111-114 (1987).
46. M. A. Anisimov, K. I. Kugel, and T. Y. Lisovskaya, "Thermodynamics of the Phase Transition in Liquid Sulfur and Sulfur Solutions", *Teplofiz. Vys. Temp. (High Temperature)* **25**, 165-173 (1987).
47. M. A. Anisimov, S. B. Kiselev, and I. G. Kostyukova, "Scaled Equation of State and Thermodynamic Properties of Steam in the Critical Region", *Teplofiz. Vys. Temp. (High Temperature)* **25**, 27-34 (1987).
48. M. A. Anisimov, S. B. Kiselev, and S. Khalidov, "Scaled Equation for Isochoric Heat Capacity of Methane-Ethane Mixture in Critical Region", *Int. J. Thermophys.* **9**, 453-464 (1988).
49. M. A. Anisimov and V.P. Voronov, "Alternative Universality for a NAC Multicritical Point Topology", *Liq. Cryst.* **3**, 403-407 (1988).
50. M. A. Anisimov, R.R. Bashirov, and Z. R. Gadzhieva, "Thermodynamics of Phase Equilibria of Nonmesogenic Substances in Nematic Liquid Crystals", *Sov. Phys. Crystallography.* **33**, 290-292 (1988).
51. M. A. Anisimov, A. S. Kurlandsky, and N. F. Kazakova "Micellization as a Phase Transition", *Mol. Cryst. Liq. Cryst.* **159**, 87-97 (1988).
52. M. A. Anisimov, S. B. Kiselev, and I. G. Kostyukova, "Asymmetric Scaled Equation of State and Critical Behavior of Binary Mixtures", *J. of Heat Transfer* **110**, 986-990 (1988).
53. M. A. Anisimov, P. E. Cladis, E. E. Gorodetskii, David A. Huse, V. E. Podneks, V. G. Taratuta, Wim van Saarloos, and V.P. Voronov, "Experimental Test of a Fluctuation Induced First Order Phase Transition: the Nematic - Smectic A Transition", *Phys. Rev. A* **41**, 6749-6762 (1990).
54. M. A. Anisimov and S. B. Kiselev, "Transport Properties of Critical Dilute Solutions", *Int. J. Thermophys.* **13**, 873-893 (1992).

55. M. A. Anisimov, E. E. Gorodetsky, A. J. Davydov, and A. S. Kurliandsky, "Interfacial Tension of Critical Liquid Mixtures in the Presence of a Surfactant", *Int. J. Thermophys.* **13**, 921-928 (1992).
56. M. A. Anisimov, E. E. Gorodetsky, A. J. Davydov, and A. S. Kurliandsky, "Landau Model for Self-assembly and Liquid Crystal Formation in Surfactant Solutions", *Liq. Cryst.* **11**, 941-947 (1992).
57. M. A. Anisimov, S. B. Kiselev, J. V. Sengers, and S. Tang, "Crossover Approach to Global Critical Phenomena in Fluids", *Physica A* **188**, 487-525 (1992). Cited by 199 (Google, January 2012).
58. M. A. Anisimov, E. E. Gorodetsky, A. J. Davydov, and A. S. Kurliandsky, "A Novel Mesoscopic Model for Micellization and Formation of Liquid Crystalline Phases in Surfactant Solutions", *Mol. Cryst. Liq. Cryst.* **221**, 71-83 (1992).
59. M. A. Anisimov and J. V. Sengers, "On the Choice of a Hidden Field Variable Near the Critical Point of Fluid Mixtures", *Physics Letters A* **172**, 114-118 (1992).
60. V. Kutcherov, G. Backstrom, M. Anisimov, and A. Chernoutsan, "Glass Transition in Crude Oil Under Pressure Detected by the Transient Hot-Wire Method", *Int. J. Thermophys.* **14**, 91-100 (1993).
61. A. A. Povodyrev, S. B. Kiselev, and M. A. Anisimov "Thermodynamic Behavior of Mixtures of Methane and Ethane in the Critical Region", *Int. J. Thermophys.* **14**, 1187-1200 (1993).
62. V. Kutcherov, A. Lundin, R. G. Ross, M. Anisimov, and A. Chernoutsan, "Glass Transitions in Viscous Crude Oils Under Pressure", *Int. J. Thermophys.* **15**, 165-176 (1994).
63. M. A. Anisimov, E. E. Gorodetskii, V. D. Kulikov, and J. V. Sengers, "A Joint Description of Vapor-Liquid and Consolute Critical Phenomena", *JETP Letters* **60**, 535-540 (1994).
64. M. A. Anisimov, E. E. Gorodetskii, V. D. Kulikov, and J. V. Sengers, "Crossover Between Vapor-Liquid and Consolute Critical Phenomena", *Phys. Rev. E* **51**, 1199-1215 (1995).
65. M. A. Anisimov, I. K. Yudin, V. Nikitin, G. Nikolaenko, A. Chernoutsan, H. Toulhoat, D. Frot, and Y. Briolant, "Asphaltene aggregation in hydrocarbon solutions studied by photon correlation spectroscopy" *J. Phys. Chem.* **99**, 9576-9580 (1995).
66. M. A. Anisimov, E. E. Gorodetskii, V. D. Kulikov, A. A. Povodyrev, and J. V. Sengers, "A General Isomorphism Approach to Thermodynamic and Transport Properties of Binary Fluid Mixtures Near Critical Points", *Physica A* **220**, 277-324 (1995).
67. M. A. Anisimov, A. A. Povodyrev, V. D. Kulikov, and J. V. Sengers, "Nature of Crossover Between Ising-like and Mean-field Critical Behavior in Fluids and Fluid Mixtures", *Phys. Rev. Lett.* **75**, 3146-3149 (1995).
68. M. A. Anisimov, A. S. Kurliandskii, and E. S. Pikina, "Interfacial Tension in Oil-Water-Surfactant Systems", *Molecular Materials* **5**, 195-214 (1995).
69. M. A. Anisimov, A. A. Povodyrev, V. D. Kulikov, and J. V. Sengers, Reply to Comment on "Nature of Crossover Between Ising-like and Mean-field Critical Behavior in Fluids and Fluid Mixtures", *Phys. Rev. Lett.* **76**, 4095 (1996).
70. Hongyuang Cheng, Mikhail A. Anisimov, and Jan V. Sengers, "Prediction of Thermodynamic and Transport Properties in the one-phase region of methane-hexane mixtures near their critical end points", *Fluid Phase Equilibria* **128**, 67-96 (1997).
71. E. E. Gorodetskii, V. D. Kulikov, L. V. Fedunina, and M. A. Anisimov, "Isomorphic description of the two-phase region of near-critical binary mixtures", *JETP* **84**, 66-69 (1997).
72. I. K. Yudin, G. L. Nikolaenko, V. I. Kosov, V. A. Agayan, M. A. Anisimov, and J. V. Sengers, "A compact photon correlation spectrometer for research and education, *Int. J. Thermophys.* **18**, 1237-1248 (1997).
73. A. A. Povodyrev, M. A. Anisimov, J. V. Sengers, J. M. H. Levelt Sengers, "Vapor-liquid equilibria, scaling, and crossover in aqueous solutions of sodium chloride near the critical line", *Physica A* **244**, 298-328 (1997).
74. Y. B. Melnichenko, M. A. Anisimov, A. A. Povodyrev, G. D. Wignall, J. V. Sengers, and W. A. Van Hook "Sharp crossover of the susceptibility in polymer solutions near the critical demixing point", *Phys. Rev. Lett.* **79**, 5266-5269 (1997).
75. M. A. Anisimov, V. A. Agayan, and P. J. Collings, "The nature of the Blue Phase III -- Isotropic critical point: an analogy with the liquid-gas transition", *Phys. Rev. E* **57**, 582-595 (1998).
76. M. A. Anisimov, V. A. Agayan, A. A. Povodyrev, J. V. Sengers, and E. E. Gorodetskii, "Two-exponential decay of dynamic light scattering in near-critical fluid mixtures", *Phys. Rev. E*, **57**, 1946-1961 (1998).
77. I. K. Yudin, G. L. Nikolaenko, E. E. Gorodetskii, E. L. Markhashov, V. A. Agayan, M.A. Anisimov, and J.V. Sengers, "Crossover kinetics of asphaltene aggregation in hydrocarbon solutions", *Physica A*, **251**, 235-244 (1998).
78. I. K. Yudin, G. L. Nikolaenko, E. E. Gorodetskii, E. L. Markhashov, D. Frot, Y. Briolant, V. A. Agayan, and M.A. Anisimov, "Universal behavior of asphaltene aggregation in hydrocarbon solutions", *Petroleum Science and Technology*, **16** (3&4), 395-414 (1998).
79. J. Jacob, A. Kumar, M.A. Anisimov, A. A. Povodyrev, and J. V. Sengers, "Crossover from Ising to meanfield critical behavior in an aqueous electrolyte solution", *Phys. Rev. E*, **58**, 2188-2200 (1998).

80. T. Edison, M.A. Anisimov, and J. V. Sengers, "Critical scaling laws and an excess Gibbs energy model", *Fluid Phase Equilibria* **150-151**, 429-438 (1998).
81. M. A. Anisimov, A. A. Povodyrev, and J. V. Sengers, "Crossover critical phenomena in complex fluids", *Fluid Phase Equilibria* **158-160**, 537-547 (1999).
82. A. Kostrowicka Wyczalkowska, M. A. Anisimov, and J. V. Sengers, "Global crossover equation of state of a van der Waals fluid", *Fluid Phase Equilibria* **158-160**, 523-535 (1999).
83. A. A. Povodyrev, M. A. Anisimov, and J. V. Sengers, "Crossover Flory model for phase separation in polymer solutions", *Physica A* **264**, 345-369 (1999).
84. A. A. Povodyrev, M.A. Anisimov, J. V. Sengers, W. L. Marshall, and J. M. H. Levelt Sengers, "Critical locus of aqueous solutions of sodium chloride", *Int. J. Thermophys.* **20**, 1529-1545 (1999).
85. M. A. Anisimov, E. Luijten, V. A. Agayan, J. V. Sengers, and K. Binder, "Shape of crossover between meanfield and asymptotic critical behavior in a three--dimensional Ising lattice", *Physics Letters A* **264**, 63-67 (1999).
86. M. A. Anisimov, "Crossover criticality in complex fluids", *J. Phys.- Cond. Mat.* **12**, A451-A457 (2000).
87. M. A. Anisimov, J. Jacob, A. Kumar, V. A. Agayan, and J. V. Sengers, "Experimental evidence for crossover to mean-field tricritical behavior in a concentrated salt solution", *Phys. Rev. Lett.* **85**, 2336-2339 (2000).
88. J. Jacob, M. A. Anisimov, A. Kumar, V. A. Agayan, and J. V. Sengers, "Novel phase-transition behavior in an aqueous electrolyte solution", *Int. J. Thermophys.* **21**, 1321-1338, 2000.
89. M. A. Anisimov, V. Agayan, and E. E. Gorodetskii "Scaling and crossover to tricriticality in polymer solutions", *JETP Letters* **72**, 578-582 (2000).
90. M. Barmatz, Inseob Han, Fang Zhong, M.A. Anisimov, and V. A. Agayan, "Crossover analyses of heat capacity and susceptibility measurements near the 3He liquid-gas critical point", *J. Low Temp. Phys.* **121**, 633-640 (2000).
91. A. Kostrowicka Wyczalkowska, Kh. S. Abdulkadirova, M. A. Anisimov, and J. V. Sengers, "Thermodynamic properties of H₂O and D₂O in the critical region", *J. Chem. Phys.* **113**, 4985 (2000).
92. K. Gutkowski, M.A. Anisimov, and J. V. Sengers "Crossover criticality in ionic solutions", *J. Chem. Phys.* **114**, 3133-3148 (2001).
93. J. Jacob, M.A. Anisimov, J. V. Sengers, A. Oleinikova, H. Weingärtner, and A. Kumar, "Novel phase transition behavior near liquid-liquid critical points of aqueous solutions. Formation of a third phase at the interface", *Chem. Phys. – Phys. Chem.*, **3**, 829-831 (2001).
94. Y. G. Burya, I. K. Yudin, V. A. Dechabo, V. L. Kosov, and M. A. Anisimov, "Light scattering study of petroleum asphaltene aggregation", *Appl. Optics* **40**, 4028-4035 (2001).
95. J. Jacob, M. A. Anisimov, J. V. Sengers, V. A. Dechabo, I. K. Yudin, "Light scattering and crossover phenomena in polymer solutions", *Appl. Optics* **40**, 4160-4169 (2001).
96. Y. G. Burya, I. K. Yudin, V. A. Dechabo, and M. A. Anisimov, "Colloidal properties of crude oils studied by dynamic light scattering", *Int. J. Thermophys.* **22**, 1397-1410 (2001).
97. V. Agayan, M. A. Anisimov, and J. V. Sengers, "Crossover parametric equation of state for Ising-like systems", *Phys. Rev. E*, **64**, 026125-1 - 026125-19 (2001).
98. A. Kostrowicka Wyczalkowska, M.A. Anisimov, and J. V. Sengers, "Impurity effects on the two-phase isochoric heat capacity of fluids near the critical point", *J. Chem. Phys.* **116**, 4202-4211 (2002).
99. Kh. .S. Abdulkadirova, A. Kostrowicka Wyczalkowska, M.A. Anisimov, and J. V. Sengers, "Thermodynamic properties of mixtures of H₂O and D₂O in the critical region" *J. Chem. Phys.* **116**, 4597-4610 (2002).
100. M. A. Anisimov, A. F. Kostko, and J. V. Sengers, "Competition of mesoscales and crossover to tricriticality in polymer solutions", *Phys. Rev. E* **65**, 051805 (2002) 4 pp.
101. A. F. Kostko, M. A. Anisimov, and J. V. Sengers "Dynamic crossover to tricriticality and anomalous slowing down of critical fluctuations by entanglements in polymer solutions", *Phys. Rev. E* **66**, 020803 (R) (2002) 4 pp.
102. J. S. Hager, M. A. Anisimov, and J. V. Sengers, "Scaling of demixing curves and crossover from critical to tricritical behavior in polymer solutions", *J. Chem. Phys.* **117**, 5940-5950 (2002).
103. Y. C. Kim, M. A. Anisimov, J. V. Sengers, and E. Luijten, "Crossover critical behavior in the three dimensional Ising model", *J. Stat. Phys.* **110**, 591-609 (2003).
104. A. F. Kostko, T. Chen, G. F. Payne, and M. A. Anisimov, "Dynamic light-scattering monitoring of a transient biopolymer gel", *Physica A* **323**, 124-138 (2003).
105. A. F. Kostko, M. A. Anisimov, and J. V. Sengers, "Probing structural relaxation in complex fluids by Critical Fluctuations, *JETP Letters*, **79**, 117-120 (2004).
106. A. Kostrowicka Wyczalkowska, J. V. Sengers and M. A. Anisimov, "Critical fluctuations and the equation of Van Der Waals", *Physica A* **334**, 482-512 (2004).
107. A. F. Kostko, M. A. Anisimov, and J. V. Sengers, "Criticality in aqueous solutions of 3-methylpyridine and sodium bromide", *Phys. Rev. E* **70**, 02618 (2004) 11 pp..
108. M. A. Anisimov, Fang Zhong, and M. Barmatz, "Resolving the Yang-Yang dilemma in 3He near the critical point", *J. Low Temp. Phys.* **137**, 69-88, 2004.

109. Yu. A. Nastishin, H. Liu, S. V. Shiyanovskii, O. D. Lavrentovich, A. F. Kostko, and M. A. Anisimov, "Pretransitional fluctuations in the isotropic phase of a lyotropic chromonic liquid crystal", *Phys. Rev. E* **70**, 051706 (2004) 9 pp.
110. J. T. Wang, M. A. Anisimov, and J. V. Sengers, "Closed solubility loops in liquid mixtures", *Z. Phys. Chem.* **219**, 1-25 (2005).
111. M. A. Anisimov, and J. V. Sengers, "Scaling, tricriticality, and crossover in polymer solutions", *Mol. Phys* **103**, 3061–3070 (2005).
112. M. A. Anisimov A. F. Kostko, J. V. Sengers, and I.K. Yudin, "Competition of mesoscales and crossover to theta-point tricriticality in near-critical polymer solutions", *J. Chem. Phys.* **123**, 164901 (2005) 17 pp.
113. A. F. Kostko, B. H. Cipriano, O. A. Pinchuk, L. Ziserman, M. A. Anisimov, D. Danino, and S. R. Raghavan, "Salt Effects on the Phase Behavior, Structure, and Rheology of Chromonic Liquid Crystals", *J. Phys. Chem. B* **109**, 19126-19133 (2005).
114. C. A. Cerdeiriña, M. A. Anisimov, and J. V. Sengers, "The nature of singular coexistence-curve diameters of liquid-liquid phase equilibria", *Chem. Phys. Lett.* **424**, 414-419 (2006).
115. M. A. Anisimov and J. T. Wang, "Nature of asymmetry in fluid criticality", *Phys. Rev. Lett.* **97**, 25703 (2006), 4 pp.
116. D. A. Fuentevilla and M. A. Anisimov, "Scaled equation of state for supercooled water near the liquid-liquid critical point", *Phys. Rev. Lett.* **97**, 195702 (2006), 4 pp.
117. M. A. Anisimov, "Divergence of Tolman's length for a droplet near the critical point", *Phys. Rev. Lett.* **98**, 035702 (2007), 4 pp.
118. J. T. Wang and M. A. Anisimov, "Nature of vapor-liquid asymmetry in fluid criticality", *Phys. Rev. E* **75**, 051107 (2007) 19 pp.
119. A. F. Kostko, M. A. Anisimov, and J. V. Sengers, "Dynamics of critical fluctuations in polymer solutions", *Phys. Rev. E* **76**, 021804 (2007).
120. C. A. Cerdeiriña, J. T. Wang, M. A. Anisimov, and J. V. Sengers, "Principle of isomorphism and complete scaling for binary-fluid criticality" *Phys. Rev. E* **77**, 031127 (2008).
121. M. A. Anisimov and H. St. Pierre, "Diverging curvature correction to the interfacial tension in polymer solutions", *Phys. Rev. E* **78**, 011105 (2008), 4 pp.
122. C. Bertrand, K. Linegar, A. Kostko, and M. Anisimov, "Multiscale Dynamics of Pre-Transitional Fluctuations in the Isotropic Phase of a Lyotropic Liquid Crystal", *Phys. Rev. E* **79**, 041704 (2009).
123. K. L. Linegar, A. E. Adeniran, A. F. Kostko, and M. A. Anisimov, "Hydrodynamic radius of polyethylene glycol in solution obtained by dynamic light scattering", *Colloid Journal* **72**, 279-281 (2010).
124. G. Pérez-Sánchez, P. Losada-Pérez, C. A. Cerdeiriña, J. V. Sengers, and M. A. Anisimov, "Asymmetric criticality in weakly compressible liquid mixtures", *J. Chem. Phys.* **132**, 154502 (2010).
125. C. E. Bertrand and M. A. Anisimov, "Complete scaling for inhomogeneous fluids", *Phys. Rev. Lett.* **104**, 205702 (2010).
126. Kh. S. Abdulkadirova, C. J. Peters, J. V. Sengers, M. A. Anisimov, "An isomorphic Peng–Robinson equation for phase-equilibria properties of hydrocarbon mixtures in the critical region", *J. Supercrit. Fluids* **55**, 594-602 (2010).
127. D. Subramanian, D. A. Ivanov, I. K. Yudin, M. A. Anisimov, and Jan V. Sengers, "Mesoscale inhomogeneities in aqueous solutions of 3-Methylpyridine and tertiary Butyl Alcohol", *J. Chem. Eng. Data* **56**, 1238–1248 (2011).
128. C. E. Bertrand and M. A. Anisimov, "Interfacial entropy profile in the one-loop approximation", *Ukrainian Journal of Physics (invited paper)* **56**, 779-783, 2011.
129. C. E. Bertrand, J. V. Sengers, and M. A. Anisimov, "Critical behavior of the dielectric constant in asymmetric fluids", *J. Phys. Chem. B* **115**, 14000–14007 (2011).
130. C. E. Bertrand, and M. A. Anisimov, "The peculiar thermodynamics of the second critical point in supercooled water", *J. Phys. Chem. B* **115**, 14099–14111 (2011).
131. D. Subramanian and M. A. Anisimov, "Resolving the mystery of aqueous solutions of tertiary butyl alcohol", *J. Phys. Chem. B* **115**, 9179-9183 (2011).
132. M. A. Anisimov, "50 years of breakthrough discoveries in fluid criticality", *Int. J. Thermophys.* **32**, 2001–2009 (2011).
133. V. Holten, C. E. Bertrand, M. A. Anisimov, and J. V. Sengers, "Thermodynamics of supercooled water", submitted to *J. Chem. Phys.* and published online: arXiv:1111.5587 [physics.chem-ph] (2011).

c. Refereed Conference Proceedings

1. M. A. Anisimov, V. M. Mamnitskii, and E. L. Sorkin, "Tricritical Behavior of Heat Capacity near Nematic - Isotropic Phase Transition" (invited paper), in "*Liquid Crystals*": Proc. of Int. Conf. In Bangalore, 1979 (Heyden, 1980), p. 347-354.

2. M. A. Anisimov, S. B. Kiselev, and I. G. Kostyukova, "The Scaled Equation for Thermal Conductivity of Steam in a Broad Vicinity of the Critical Point", in *Proceedings 10th Intern. Conf. on the Properties of Steam*, MIR Publ., Moscow, Vol. 1, 435-442 (1986).
3. M. A. Anisimov, S. B. Kiselev, I. G. Kostyukova, and L. V. Fedyunina, "Crossover Equation of State for Critical Steam Including Metastable Region", in *"Properties of Water and Steam"*, Proc. of the 11th Int. Conf., 1989, Prague. Hemisphere Publ. Corp., pp. 175-181.
4. M. A. Anisimov, M. M. Bochkov, S. B. Kiselev, and A. A. Povodyrev "Critical Behavior of the Isochoric Heat Capacity of Aqueous Dilute Solutions", in *"Properties of Water and Steam"*, Proc. of the 11th Int. Conf., 1989, Prague. Hemisphere Publ. Corp., pp. 189-195.
5. E. V. Zhuravleva, M. A. Anisimov, T. F. Svitova, and V. Yu. Lobanova, "New Kind of Water/Oil Interface Instability and the Nature of Ultra-low Interfacial Tension" (invited paper), in *"Physical Chemistry of Colloids and Interfaces in Oil Production"*, Proc. of the 6th IFP Exploration and Production Research Conference, 1991, Saint-Raphael. Editions Technip, Paris, 133-139 (1992).
6. M. A. Anisimov, E. Gorodetsky, A. Davydov, and A. Kurliandsky, "A Phase Transition Model for Micellization and Microemulgation in Surfactant Solution", in *"Physical Chemistry of Colloids and Interfaces in Oil Production"*, Proc. of the 6th IFP Exploration and Production Research Conference, 1991, Saint-Raphael. Editions Technip, Paris, 263-264 (1992).
7. M. A. Anisimov and J. V. Sengers, "Crossover critical phenomena in aqueous solutions" in *"Steam, Water, and Hydrothermal Systems"* (invited paper) (Proceedings of the 13th International Conference on the Properties of Water and Steam), P. R. Tremaine, P. G. Hill, D. E. Irish, and P. V. Balakrishnan, eds., Research Press, National Research Council, Ottawa, 2000, pp. 328-338.
8. M. A. Anisimov, A. A. Povodyrev, J. P. Roseli, J. V. Sengers, S. B. Kiselev, and D. G. Friend, "Critical amplitudes of H₂O and D₂O in the near vicinity of the critical point" in *"Steam, Water, and Hydrothermal Systems"* (Proceedings of the 13th International Conference on the Properties of Water and Steam), P. R. Tremaine, P. G. Hill, D. E. Irish, and P. V. Balakrishnan, eds., Research Press, National Research Council, Ottawa, 2000, pp. 339-346.
9. A. Kostrowicka Wyczalkowska, Kh. S. Abdulkadirova, M. A. Anisimov, and J. V. Sengers, "A crossover equation for the thermodynamic properties of light and heavy steam in the critical region" in *"Steam, Water, and Hydrothermal Systems"* (Proceedings of the 13th International Conference on the Properties of Water and Steam), P. R. Tremaine, P. G. Hill, D. E. Irish, and P. V. Balakrishnan, eds., Research Press, National Research Council, Ottawa, 2000, pp. 365-373.
10. Kh. S. Abdulkadirova, M. A. Anisimov, J. V. Sengers, and J. M. H. Levelt Sengers, "A crossover equation for the thermodynamic properties of mixtures of light and heavy steam in the critical region" in *"Steam, Water, and Hydrothermal Systems"* (Proceedings of the 13th International Conference on the Properties of Water and Steam), P. R. Tremaine, P. G. Hill, D. E. Irish, and P. V. Balakrishnan, eds., Research Press, National Research Council, Ottawa, 2000, pp. 383-390.
11. I. K. Yudin, G. L. Nikolaenko, E. E. Gorodetskii, E. L. Markhashov, V. A. Agayan, and M. A. Anisimov, "Crossover from reaction-limited aggregation to diffusion limited aggregation of asphaltenes in hydrocarbon solutions", in *Porous Media: Physics, models, simulation*, A. Dmitrievsky and M. Panfilov, eds., World Scientific, Singapore-New Jersey-London-Hong Kong, 2000, pp. 75-84.
12. M. A. Anisimov, "Beyond fluid-fluid separation: order-disorder transitions in isotropic liquids" in *"New Kinds of Phase Transition Phenomena"*, V. Brazhkin, S. V. Buldyrev, V. Ryzhov, and H. E. Stanley, eds., NATO Advanced Research Workshop (Volga River, 2001), Kluwer, Dordrecht, 2002, pp. 49-57.
13. M. A. Anisimov "Coupled ordering in soft matter: competition of mesoscales and dynamics of coupled fluctuations" Proceedings of NATO Advance Research Workshop "Soft matter under exogenic impacts" (Odessa, October 2005), Springer, 2006.
14. Claudio A. Cerdeiriña, Mikhail A. Anisimov, and Jan V. Sengers, "Comportamiento crítico en sistemas asimétricos: La anomalía Yang-Yang en las transiciones líquido-líquido", in *"La investigación del Grupo Especializado de Termodinámica"*, José M. Ortiz de Zárate and Mohamed Khayet, eds., de las Reales Sociedades Españolas de Física y de Química. Año 2006, pp. 105-118.
15. M. A. Anisimov and H. St. Pierre, Divergence of Tolman's Length in Polymer Solutions, in *Proceedings of the 11th European Meeting on Supercritical Fluids*, International Society for the Advancement of Supercritical Fluids, Barcelona, 2008, pp.101-106.
16. I. K. Yudin and M. A. Anisimov, "Dynamic Light scattering monitoring of asphaltene aggregation". Publication online by ACS, Division of Fossil Fuels, Washington, DC, 2009.
17. M. A. Anisimov, "Supercritical, supercooled: water at low temperatures", Online Proceedings of the 13th European Meeting on Supercritical Fluids (October 2011), Hague, The Netherlands.

d. Technical Reports, Digests, International Guidelines, etc.

1. A. A. Povodyrev, M. A. Anisimov, and J. V. Sengers, "Critical Phenomena in Aqueous Solutions of Sodium Chloride: Description of vapor-liquid equilibria and isochoric specific heat capacity", Technical report to IAPWS (Institute for Physical Science and Technology, University of Maryland at College Park, 1996), 32 pages.
2. A. A. Povodyrev, M. A. Anisimov, J. V. Sengers, J. M. H. Levelt Sengers, "Evaluation of the Critical Locus of Aqueous Solutions of Sodium Chloride", Technical report to IAPWS (Institute for Physical Science and Technology, University of Maryland at College Park, September 1997), 27 pages.
3. W. V. Meyer, A. E. Smart, R. G. W. Brown, and M. A. Anisimov, "Photon correlation and scattering: introduction to the feature issue", *Appl. Optics*, **36**, 7477-7479 (1997).
4. A. A. Povodyrev, M. A. Anisimov, J. V. Sengers, W. L. Marshall, and J. M. H. Levelt Sengers, "Critical Locus of Aqueous Solutions of Sodium Chloride", Technical report to IAPWS (Institute for Physical Science and Technology, University of Maryland at College Park, August 1998), 26 pages.
5. A. Kostrowicka Wyczalkowska, Kh. Abdulkadirova, M. A. Anisimov, and J. V. Sengers, "Thermodynamic Properties of H₂O and D₂O in the Critical Region: A Scaled Crossover Equation", Technical report to IAPWS (Institute for Physical Science and Technology, University of Maryland at College Park, August 1998), 66 pages.
6. A. A. Povodyrev, M. A. Anisimov, J. V. Sengers, W. L. Marshall, and J. M. H. Levelt Sengers, "Guideline on the Critical Locus of Aqueous Solutions of Sodium Chloride", International Association for the Properties of Water and Steam (IAPWS), Prague, 2000, 6 pages.
7. J. Jacob, V. A. Agayan, M.A. Anisimov, R. W. Gammon, J. V. Sengers, and I. K. Yudin, "Light scattering and crossover critical phenomena in polymer solutions", in "*Photon Correlation and Scattering*", OSA Technical Digest (Optical Society of America, Washington, D.C., 2000), pp. 36-38.
8. I. K. Yudin, V. A. Dechabo, E. E. Gorodetskii, V. L. Kosov, Y. G. Burya, and M.A. Anisimov, "Crossover from reaction-limited aggregation phenomena in petroleum colloids studied by dynamic light scattering", in "*Photon Correlation and Scattering*", OSA Technical Digest (Optical Society of America, Washington, D.C., 2000), pp. 30-32.
9. M. A. Anisimov, "On the frontiers of science", in *Collection on Memory of Yu. I. Shimanskii* (KM Academia, Kiev, 2002), pp. 80-81.
10. V. Holten, C. E. Bertrand, M. A. Anisimov, and J.V. Sengers, "Thermodynamic modeling of supercooled water" Technical Report, International Association for the Properties of Water and Steam, Pilsen, Czech Republic, September 2011, 43 pages.

e. Other

About 50 publications (reviews, encyclopedia articles, journal articles, technical reports, and symposium proceedings) in the Russian language only from 1963 through 1993. The Russian language articles include publications in "Teplofizicheskie Svoistva Veschestv i Materialov" (Russian State Service for Standard and Reference Data), "Moscow University News", "Optika i Spektroskopia" (Russian Optics & Spectroscopy), and "Neft' i Gas" (Russian Oil & Gas Journal).

Selected publications in Russian:

1. M. A. Anisimov "Studies of critical opalescence in solutions", in *Modern Problems of Physical Chemistry*, Volume 5, pp. 358-371 (Moscow State University, Moscow, 1970).
2. M. A. Anisimov "Critical State", in *Chemistry Encyclopedia* (Soviet Encyclopedia Publ., Moscow, 1983 p. 288).
3. M. A. Anisimov "Phase Transitions", in *Chemistry Encyclopedia* (Soviet Encyclopedia Publ., Moscow, 1983 pp. 608-609).
4. M. A. Anisimov *et al.* "A novel model for formation of supramolecular structures in surfactant solutions", in *Advances in Colloid Chemistry* (Chemistry, Leningrad. 1991, pp. 15-30).