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CURRICULUM VITAE

Professor Arieh Ben-Naim

Born: July 11, 1934 in Jerusalem, Israel

School: Elementary and high school in Jerusalem

Studies:

1957 Studies in Chemistry at the Hebrew University of Jerusalem

1961 M.Sc. degree in Physical Chemistry

1961-64 Research toward the degree of Ph.D. under the supervision of Prof. G. Stein and Prof. S. Baer at the Dept. of Physical Chemistry, The Hebrew University of Jerusalem.

1964 Ph.D. subject of thesis: "Thermodynamics of Aqueous Solutions of Noble Gases."

Oct. 1964 Instructor in the Dept. of Physical Chemistry, The Hebrew University of Jerusalem; participated in teaching and research.

Nov. 1965 - Jan. 1967 Postdoctoral Fellow at the State of the University of New York at Stony Brook, New York; worked with Prof. H.L. Friedman on theoretical aspects of aqueous solutions of electrolytes and transport phenomena.

Jan. 1967 - Sept. 1968 Research Fellow at the Chemical Physics Dept., Bell Telephone Laboratories, Murray Hill, New Jersey; Collaborated with Dr. F.H. Stillinger, Jr., on statistical

aspects of the theory of liquid water.

Oct. 1968	Senior lecturer at the Dept. of Inorganic and Analytical Chemistry, The Hebrew University of Jerusalem.
Summer 1971	Visiting Scientist, Institute of Electrochemistry, The University of Karlsruhe, West Germany.
April 1972	Associate Professor, The Hebrew University of Jerusalem
Aug. 1973 - Aug. 1975	Visiting Scientist at the Theoretical Molecular Biology Section, LMB, NIAMDD, NIH, Bethesda, Maryland, USA.
Oct. 1974	Professor of Physical Chemistry, The Hebrew University of Jerusalem
Sept. - Oct. 1977	Visiting Professor, Dept. of Chemistry, Ørsted Institute, University of Copenhagen, Denmark.
1977 - Sept. 1978	Head of the Dept. of Physical Chemistry, The Hebrew University of Jerusalem.
Aug. - Sept. 1978	Visiting Professor, Dept. of Applied Mathematics, Institute of Advanced Studies, Australian National University, Canberra, Australia.
March - Sept. 1979	Visiting Professor, Dept. of Physical Chemistry, Denmark Technical University, Lyngby, Denmark.
Sept. 1979 - Sept. 1980	Visiting Scientist, Bell Telephone Laboratories, Murray Hill, New Jersey, USA.
Sept. 1980 - July 1994	Professor of Chemistry, Dept. of Physical Chemistry, The Hebrew University of Jerusalem
July 1984 - March 1985	Visiting Professor, University of La Plata and Institute of Physics of Liquids and Biological Systems, La Plata, Argentina
April 1985 - Nov. 1985	Visiting Professor, Dept. of Chemistry, University of the Philippines, Diliman, Quezon City, Philippines.
Nov. 1985 - Nov. 1986	Visiting Scientist, Laboratory of Mathematical Biology, National Institutes of Health, Bethesda, Maryland, USA.
July 1987 - Nov. 1987	Visiting Scientist, Laboratory of Mathematical Biology, National Institutes of Health, Bethesda, Maryland, USA
July 1990 - Nov. 1990	Visiting Scientist, Laboratory of Mathematical Biology,

	National Institutes of Health, Bethesda, Maryland, USA
March 1991 - July 1991	Visiting Professor, Institute of Theoretical Science, University of Oregon, Eugene, Oregon, USA
July 1991 - Oct. 1991	Visiting Scientist, Laboratory of Mathematical Biology, National Institutes of Health, Bethesda, Maryland, USA
Oct. 1995 - Feb. 1996	Visiting Professor, Dept. of Chemistry, University of the Philippines, Quezon City, Philippines
July - Sept. 1998	Visiting Professor, Dept. of Physical Chemistry, Westfalische Universitaet, Munster, Germany.
Feb - Sept. 1999	Visiting Professor, Center for Polymer Studies Boston University, Boston, MA. USA
Mar.- July 2002	Visiting Professor, Institute of Chemical Process Fundamentals, Academy of Sciences of Czech Republic, Prague 6, Czech Republic.
July - Sept 2002	Visiting Professor, Dept. of Physics and Astronomy, University College, London, England.
March- July 2003	Visiting Professor, Dept. of Biochemistry, Kansas State University, Manhattan, Kansas, 66506, USA
July- Nov 2003	Visiting Professor, Dept. of Chemistry, Duquesne University, Pittsburgh, PA, 15282, USA
December 2003	Visiting Professor, Dept. of Chemistry, Australian Defense Forces Academy, Canberra, Australia.
Jan-Mar 2004	Visiting Professor, Dept. of Chemistry, University of the Philippines, Quezon City, Philippines.
Sept 2004 – July 2006	Visiting Professor, Dept. of Physical Chemistry Universidad de Burgos, Burgos, Spain
Summer 2006	Visiting Professor, Dept. of Computational Molecular Biophysics, University of Heidelberg, Heidelberg, Germany
Oct 2006 to Oct 2007	Visiting scholar, Center of Theoretical Biological Physics, University of California San Diego (UCSD), La Jolla CA
Oct 2007 to June 2008	Visiting researcher, National Institute of Standards and Technology (NIST), Maryland, USA
July 2008-June 2009	Visiting professor, Division of Physical Chemistry, Stockholm University, Stockholm, Sweden

Sept 2013- March 2014 Visiting professor, the department of Chemistry and biological chemistry, Indiana University IUPUI, Indianapolis, Indiana.

May 2013 Visiting professor, Computational Physical Chemistry, Center of Smart Interfaces, Technical University of Darmstadt, 64287, Darmstadt, Germany

March-June 2014: Visiting professor, Department of Chemistry and Department of pharmacology, The University of Minnesota, Minneapolis.

Sept-December 2014: Visiting professor, the Institute of computational physics, the University of Stuttgart, Stuttgart, Germany.

April 2017: Visiting professor, Jacobs University Bremen gGmbH, 28759 Bremen, Germany.

Jan-2018: Visiting professor, Department of chemistry, Indian Institute of Technology, Delhi, India.

Feb-April 2018: Visiting professor, Department of chemistry, University of the Philippines, Diliman, Manila, The Philippines.

Present: Professor emeritus. The Hebrew University of Jerusalem, Givat Ram, Jerusalem, Israel

Present fields of interest:

Theoretical and experimental aspects of the structure of water, aqueous solutions and hydrophobic hydrophilic interactions.

General theory of liquids and solutions.

Theoretical problems in biochemistry and biophysics.

Theoretical Biology and theory of evolution.

Entropy and Information Theory.

New formulation of the Second Law of Thermodynamics

Books written:

1. A. Ben-Naim, *Water and Aqueous Solutions, Introduction to a Molecular Theory*, Plenum Press, New York (1974).
2. A. Ben-Naim, *Hydrophobic Interactions*, Plenum Press, New York (1980),
3. A. Ben-Naim, *Solvation Thermodynamics*, Plenum Press, New York (1987).
4. A. Ben-Naim, *Statistical Thermodynamics for Chemists and Biochemists*, Plenum Press (1992).
5. A. Ben-Naim, *Cooperativity and Regulation in Biochemical Systems*, Kluwer /Plenum Publications, New-York (2001).
6. A Ben-Naim, *Molecular Theory of Solutions*, Oxford University Press, Oxford, (2006)
7. A. Ben-Naim, *Entropy-Demystified, the Second Law of Thermodynamics Reduced to Plain Common Sense*, World Scientific, Singapore (2007).
8. A. Ben-Naim, *A Farewell to Entropy. Statistical Thermodynamics Based on Information*, World Scientific, Singapore (2008).
9. A. Ben-Naim, *Molecular Theory of Water and Aqueous Solutions. Part I: Understanding Water*, World scientific, Singapore (2009).
10. A. Ben-Naim, *Molecular Theory of Water and Aqueous Solutions, Part II: The role of Water in Protein Folding, Self assembly and Molecular Recognition*, World Scientific, Singapore (2011).
11. A. Ben-Naim, *Discover Entropy and the Second Law of Thermodynamics*, World Scientific (2010).

12. A. Ben-Naim and R. Ben-Naim, *Alice's Adventures in Water-Land*, World Scientific, Singapore (2011).
13. A. Ben-naim, *Entropy and the Second Law, Interpretation and Miss-Interpretationsss*, World Scientific, Singapore (2012)
14. A. Ben-Naim, *The Protein Folding Problem and its Solutions*, World Scientific, Singapore (2013)
15. A. Ben-Naim and R. Ben-Naim, *Alice's Adventures in Molecular Biology*, World Scientific, Singapore (2013).
16. A. Ben-Naim, *Statistical Thermodynamics, with Applications to Life Sciences*, World Scientific, Singapore (2014)
17. A. Ben-Naim, *Discover Probability; How to Use it, How to Avoid Misusing it and How it Affects Every Aspect of Your Life*, World Scientific, Singapore (2014).
18. A. Ben-Naim, *Information, Entropy, Life and the Universe. What we know and what we do not know*, World Scientific, Singapore (2015)
19. A. Ben-Naim, *Myths and Verities in Protein Folding Theories*, World Scientific, Singapore (2016).
20. A. Ben-Naim, *The Briefest History of Time: The History of Histories of Time, And the misconstrued association between Entropy and Time*, World Scientific, Singapore (2016).
21. A. Ben-Naim, *Entropy, The Truth, the Whole Truth and Nothing but the Truth*, World Scientific, Singapore (2016)
22. A. Ben-Naim, and D Casadei, *Modern Thermodynamics*, World Scientific, Singapore (2016)
23. A. Ben-Naim, *Information Theory, Part I: An Introduction to the fundamental concepts*, World Scientific, (2017)
24. A. Ben-Naim, *The Four Laws that do not Drive the Universe, For the Curious and intelligent*, World Scientific, Singapore (2017)
25. A. Ben-Naim, Z. Kirson and Jose Angel Sordo, *Water in Life, and Life in Water*, in preparation 92019)
26. A. Ben-Naim, *Time's Arrow (?) The Timeless Nature of Entropy and the Second Law of Thermodynamics*. Lulu Publishing Services, (2018)
27. A. Ben-Naim, *Comprehensive Reviews: Parts I and II: From Decoding to Programing the Universe*. Lulu Publishing Services, (2018)
28. A. Ben-Naim, *Comprehensive Reviews: Parts III and IV: From Eternity to Here And to the Big Picture*, Lulu Publishing Services, (2018)

29. A. Ben-Naim, *Comprehensive Reviews: Parts V and VI, On Probability of God and Proof of Heaven*, Lulu Publishing Services, (2018)
30. A. Ben-Naim, *Entropy for smart Kids, and Their Curious Parents, in preparation*

List of Publications

Professor Arieh A. Ben-Naim

1. A. Ben-Naim, A new method of defining the activity functions of non-ideal gases and solutions, J. Chem. Ed., 39, 242-245 (1962).
2. A. Ben-Naim and S. Baer, Method of measuring solubilities of slightly soluble gases in liquids, Trans. Faraday Soc., 59, 2735-2738 (1963).
3. A. Ben-Naim and S. Baer, Solubility and thermodynamics of solution of argon in water + ethanol system, Trans. Faraday Soc., 60, 1736-1741 (1964).
4. A. Ben-Naim, Thermodynamics of solution of gases in aqueous solutions, Ph.D. Thesis, Hebrew University, Jerusalem, Israel (1964).
5. A. Ben-Naim, Solubility of noble gases in water and the relation to the structure of water, Israel J. Chem., 2, 278-279 (1964).
6. A. Ben-Naim, On the difference between the thermodynamic behavior of argon in D₂O and H₂O, J. Chem. Phys., 42, 1512-1514 (1965).
7. A. Ben-Naim and G. Moran, Solubility and thermodynamics of solution of argon in water + p-dioxane system, Trans. Faraday Soc., 61, 821-825 (1965).
8. A. Ben-Naim, On the origin of the stabilization of the structure of water by non-electrolytes, J. Phys. Chem., 69, 1922-1927 (1965).
9. A. Ben-Naim, Thermodynamics of aqueous solutions of noble gases, J. Phys. Chem., 69, 3240-3245 (1965).
10. A. Ben-Naim, Thermodynamics of aqueous solutions of noble gases Part II: Effect of non-electrolytes, J. Phys. Chem., 69, 3245-3250 (1965).
11. A. Ben-Naim and M. Egel-Thal, Thermodynamics of aqueous solutions of noble gases Part III: Effect of electrolytes, J. Phys. Chem., 69, 3250-3253 (1965).
12. Baer and A. A. Ben-Naim, On the second order rate equation (letter to the editor), J. Chem. Ed., 43, 680 (1966).
13. A. Ben-Naim, Solubility and thermodynamics of solution of argon in mixtures of H₂O and D₂O, J. Chem. Phys., 45, 1848-1849 (1966).

14. A. Ben-Naim, Structural shifts in water and their influence on the solubility of gases, *J. Chem. Phys.*, **45**, 2706-2707 (1966).
15. A. Ben-Naim, Thermodynamics of aqueous solutions of noble gases Part IV: Effect of tetraalkylammonium salts, *J. Chem. Phys.*, **71**, 1137-1138 (1967).
16. A. Ben-Naim and H.L. Friedman, On the application of the scaled particle theory to aqueous solutions of non-polar gases, *J. Phys. Chem.*, **71**, 448-449 (1967).
17. A. Ben-Naim, Solubility and thermodynamics of solutions of argon in water-methanol system, *J. Phys. Chem.*, **71**, 4002-4007 (1967).
18. F.H. Stillinger, Jr., and A. A. Ben-Naim, Liquid vapor interface potential for water, *J. Phys. Chem.*, **47**, 4431-4437 (1967).
19. H.L. Friedman and A. Ben-Naim, Calculation of the effect of non-Brownian motion on some DC transport coefficients in solutions, *J. Chem. Phys.*, **48**, 120-127 (1968).
20. A. Ben-Naim, Solubility and thermodynamics of solutions of argon in water ethylene-glycol system, *J. Phys. Chem.*, **72**, 2998-3001 (1968).
21. F. H. Stillinger, Jr., and A. Ben-Naim, Relation between local structure and thermodynamic properties in aqueous fluids, *J. Phys. Chem.*, **73**, 900-907 (1969).
22. A. Ben-Naim, Hole and particle distribution in water, *J. Chem. Phys.*, **50**, 404-407 (1969).
23. R.A. Lovett and a. Ben-Naim, One dimensional model for aqueous solutions of inert gases, *J. Chem. Phys.*, **7**, 3108-3119 (1969)
24. A. Ben-Naim, Statistical Mechanical Theory of Liquid Water, Proceedings of a Symposium on "Structure and Physical-Chemical Properties of Water," Florence, Italy (1969).
25. A. Ben-Naim, Application of an approximate Percus-Yevick equation for liquid water, *J. Chem. Phys.*, **52**, 5531-5541 (1970).
26. A. Ben-Naim, On the partial molar heat capacity of non-polar gases in aqueous solutions, *Trans Faraday Soc.*, **66**, 2749-2760 (1970).
27. A. Ben-Naim, Statistical mechanical study of hydrophobic interaction, Part I: Interaction between two identical non-polar solute particles, *J. Chem. Phys.*, **54**, 1387-1404 (1971).
28. A. Ben-Naim, Statistical Mechanics of "water-like" particles in Two Dimensions, Part I: Interaction between two identical non-polar solute particles, *J. Chem. Phys.*, **54**, 3682-2695 (1971).
29. A. Ben-Naim, Statistical mechanical study of hydrophobic interaction, Part II: Interaction among a set of M identical spherical and non-polar solute particles, *J. Chem. Phys.*, **54**, 3696-3711 (1971).
30. A. Ben-Naim and F.H. Stillinger, Jr., Aspects of the statistical-mechanical theory of water, in: *Water and Aqueous Solutions* (R.A. Horne, ed.), chapter 8,

pp. 295-330, Wiley Sons, New York (1972).

31. A. Ben-Naim, Thermodynamics of dilute aqueous solutions of non-polar solutes, in: Water and Aqueous Solutions (R.A. Horne, ed.), Chapter 11, pp. 425-467, Wiley Sons, New York (1972).
32. A. Ben-Naim, Simulation of hydrophobic interaction in a two dimensional system, Chem. Phys. Letters, 11, 389-392 (1971).
33. A. Ben-Naim, Can hydrogen bonds be formed by the addition of a solute to a hydrogen-bonded solvent? Chem. Phys. Letters, 13, 406-408 (1972).
34. A. Ben-Naim, Mixture-model approach to the theory of classical fluids, Part I, J. Chem. Phys., 56, 2865-2859 (1972).
35. A. Ben-Naim, Mixture-model approach to the theory of classical fluids, Part II: Application to liquid water, J. Chem. Phys., 57, 3605-3612 (1972).
36. A. Ben-Naim, Statistical mechanical study of hydrophobic interaction, Part III: Generalization and further applications, J. Chem. Phys., 57, 5257-5265 (1972).
37. A. Ben-Naim, Statistical mechanical study of hydrophobic interaction, Part IV: The behavior of the function $Y(R)$ at short distances, J. Chem. Phys., 57, 5266-5269 (1972).
38. A. Ben-Naim, Application of statistical mechanics in the study of liquid water, in: Water: A Comprehensive Treatise, the Physics and Physical Chemistry of Water, (F. Franks, ed.), Vol. I, Chapter 11, Plenum Press, New York (1972).
39. A. Ben-Naim, Molecular theories and models of water and dilute aqueous solutions in: Water: A Comprehensive Treatise, the Physics and Physical Chemistry of Water, (F. Franks, ed., Vol. 11, Chapter II, Plenum Press, New York (1972).
40. A. Ben-Naim, A mixture-model approach to the theory of classical fluids, Part III: Application to aqueous solutions of non-electrolytes, Statistical Physics, 7, 3-30 (1973).
41. A. Ben-Naim, Statistical mechanics of "water-like" particles in two dimensions, Part II: One component system, Molecular Physics, 24, 705-721 (1972).
42. A. Ben-Naim, Statistical mechanics of "water-like particles in two dimensions, Part III: Two component system, hydrophobic interactions, Molecular Physics, 24, 723-733 (1972).
43. A. Ben-Naim, J. Wilf and M. Yaacobi, Hydrophobic interaction in light and

- heavy water, *J. Phys. Chem.*, **77**, 95-102 (1973).
44. M. Yaacobi and A. Ben-Naim, Hydrophobic interaction in water-ethanol system, *J. Solution Chem.*, **2**, 425-443 (1973).
 45. A. Ben-Naim, Hydrophobic interaction, in: Sveme Conseil International de chimie "Electrostatic Interactions and Structure of Water", Solvey Conference, June (1972).
 46. A. Ben-Naim and M. Yaacobi, Effects of solutes on hydrophobic interaction, and its temperature dependence, *J. Phys. Chem.*, **78**, 170-175 (1974).
 47. M. Yaacobi and A. Ben-Naim, solvophobic interaction, *J. Phys. Chem.*, **78**, 175-178 (1974).
 48. A. Ben-Naim, Generalized molecular distribution functions, *J. Chem. Phys.*, **59**, 6535-6555 (1973).
 49. A. Ben-Naim, Recent developments in the molecular theory of liquid water, in: Water, as Liquid and Solvent, (W. Luck, ed.), pp. 93-114, Verlag Chemie, Germany (1974).
 50. A. Ben-Naim, *Water and Aqueous Solutions, Introduction to a Molecular Theory*, Plenum Press, New York (1974).
 51. A. Ben-Naim and M. Yaacobi, Hydrophobic interaction in water-dioxane system, *J. Phys. Chem.* **79**, 1263-1267 (1975).
 52. A. Ben-Naim, Structure breaking and structure promoting processes in aqueous solutions, *J. Phys. Chem.* **79**, 1268-1274 (1975).
 53. A. Ben-Naim, Aspect of molecular theories of water, a lecture in the 8th International Conference on the Properties of Water and Steam, Hyeres-Giens, France, pp. 911-917 (September 1974).
 54. A. Ben-Naim, Solubility, hydrophobic interaction and structural changes in the solvent, in: Chemistry and Physics of Aqueous Gas Solutions, (W. Adams. ed.), Electrochemical Society (1975).
 55. A. Ben-Naim, Hydrophobic interaction and structural changes in the solvent Biopolymers, **14**, 1337-1355 (1975).
 56. A. Ben-Naim, Solute and solvent effects on chemical equilibrium, *J. Chem. Phys.*, **63**, 2064-2073 (1975).
 57. A. Ben-Naim, Molecular origin of ideal solutions and small deviations from ideality, in: Solution and Solubility, a volume in the Techniques of Chemistry, series (A. Weissberger and M.R.H. Dack, eds.), Vol. 8, pp. 29-103, Wiley Interscience, New York (1975).

58. A. Ben-Naim, Hydrophobic interaction, in: Colloques Internationaux du Centre National de la Recherche Scientifique, L'eau et les Systemes Biologiques, pp. 215-221, Roscoff (June 1975).
59. R. Tenne and A. Ben-Naim, Effect of tetraalkylammonium salts on the hydrophobic interaction, J. Phys. Chem., 80, 1120-1122 (1976).
60. A. Ben-Naim and R. Tenne, Application of the scaled particle theory to the problem of hydrophobic interaction, J. Chem. Phys., 67, 627-635 (1977).
61. R. Tenne and A. Ben-Naim, Application of the scaled particle theory to the problem of hydrophobic interaction, Part II: Mixtures of water and ethanol, J. Chem. Phys., 67, 4632-4635 (1977).
62. A. Ben-Naim, Inversion of the Kirkwood-Buff theory of solutions: Application to the water-ethanol system, J. Chem. Phys., 67, 4884-4890 (1977).
63. A. Ben-Naim, Hydrophobic interaction, Phys. Chem. Liq., 7, 375-385 (1977).
64. A. Ben-Naim, Statistical mechanics of aqueous fluids, in: Progress in Liquid Physics (C.A. Croxton, ed.) pp. 429-453, Wiley, New York (1978).
65. A. Ben-Naim, Standard thermodynamics of transfer: Uses and misuses, J. Phys. Chem., 82, 792-803 (1978).
66. A. Ben-Naim, A simple model for demonstrating the relation between solubility, hydrophobic interaction and structural changes in the solvent, J. Phys. Chem., 82, 874-885 (1978).
67. A. Ben-Naim, Temperature, pressure and solute effect on hydrophobic interactions, in: Energetics and Structure of Halophilic Microorganisms (S.R. Kaplan and M. Ginzburg, eds.), Elsevier, Amsterdam (1978).
68. A. Ben-Naim and J. Wilf, A direct measurement of intramolecular hydrophobic interactions, J. Chem. Phys., 70, 771-777 (1979).
69. Z. Elkoshi and A. Ben-Naim, A one-dimensional model for demonstration hydrophobic interaction, J. Chem. Phys., 70, 1552-1559 (1979).
70. J. Wilf and A. Ben-Naim, Intramolecular hydrophobic interaction in light and heavy water, J. Chem. Phys., 70, 3079-3081 (1979).
71. A. Ben-Naim and J. Wilf, Solubilities and hydrophobic interactions, in aqueous solutions of monoalkylbenzene molecules, J. Phys. Chem., 84, 583-586 (1980).
72. J. Wilf and A. Ben-Naim, Intramolecular hydrophobic interactions in water-ethanol systems, J. Phys. Chem., 83, 33209-3213 (1979).
73. A. Ben-Naim, A reply to Tanford's comment on "Standard States in Thermodynamics of Transfer", J. Phys. Chem., 83, 1083 (1979).

74. A. Ben-Naim, Hydrophobic Interactions, Plenum Press, New York (1980).
75. A. Ben-Naim, Hydrophobic interactions and structural changes in the solvent, Proceedings of the V International Symposium on Solute-Solute-Solvent Interactions, Florence, Italy, 1980, Inorg. Chem. Acta Letters, **40**, 35 (1980).
76. A. Ben-Naim and F.H. Stillinger, Critical micelle concentration and the size-distribution of surfactant aggregates, J. Phys. Chem., **84**, 2872-2876 (1980).
77. F.H. Stillinger and A. Ben-Naim, Statistical thermodynamics of micellar solutions, J. Chem. Phys., **74**, 2510-2517 (1981).
78. K. Birdi and A. Ben-Naim, Standard free energy of transfer of a solute from water into micelles, J. Chem. Soc. Faraday Trans. 1, **77**, 741-750 (1981).
79. A. Ben-Naim, Hydrophobic interactions, an overview, in: Proceedings of the International Symposium on Solution Behavior of Surfactants, June 1980 in Potsdam, New York (E.J. Fendler and K.L. Mittal., eds.), Plenum Press, New York (1982).
80. A. Ben-Naim, Hydrophobic interactions in biological systems, in: Topics in Molecular Pharmacology (G.C.K. Roberts and A. Burgen, eds.), Elsevier North-Holland Biochemical Press, New York (1982).
81. A. Ben-Naim, Hydrophobic interactions and their significance in biological systems, Proceedings of the VI-International Symposium on Solute-Solute-Solvent Interactions. Osaka Japan (1982), in: Ions and Molecules in Solutions (N. Tanaka, H. Ohtadi, and R. Tamamushi, eds.), pp. 383-396, Elsevier Science Publishers, Amsterdam (1982).
82. A. Ben-Naim, Computation of the micelle-size-distribution from experimental measurements, in: Proceedings of the International Symposium on Surfactants in Solutions, Lund, Sweden (1982), (B. Lindman and K.L. Mittal, eds.) Plenum Press, New York (1982).
83. A. Ben-Naim, The application of the Kirkwood-Buff theory to the problem of hydrophobic interaction, Faraday Symposium No. 17, Reading (1982).
84. A. Ben-Naim and J. Wilf, Solubilization of paraffin gases in aqueous solutions of sodium octanoate, J. Solution Chem., **12**, 671-683 (1983).
85. A. Ben-Naim and J. Wilf, Solubility and thermodynamics of solution of argon in aqueous solutions of sodium octanoate and in sodium dodecyl-sulfate, J. Solution Chem., **12**, 861-868 (1983).
86. A. Ben-Naim and Y. Marcus, Solubility and thermodynamics of solution of xenon in liquid-n-alkanes, J. Chem. Phys., **80**, 4438-4440 (1984).

87. A. Ben-Naim and Y. Marcus, Solvation thermodynamics of non-ionic solutes, J. Chem. Phys., 81, 2016-2028 (1984).
88. A. Ben-Naim, Solvation thermodynamics of completely dissociable solutes, J. Phys. Chem., 89, 3791-3798 (1985).
89. A. Ben-Naim and R. Battino, Solubilization of methane, ethane, propane and n-butane in aqueous solutions of sodium dodecylsulfate, J. Solution Chem., 14, 1-10 (1985).
90. A. Ben-Naim, Solvation thermodynamics of water in aqueous solutions, Part I: Theory and limiting effect. J. Chem. Phys., 82, 4662-4667 (1985).
91. A. Ben-Naim. Solvation thermodynamics of water in aqueous solutions, Part II: Water ethanol mixtures, J. Chem. Phys., 82, 4668-4669 (1985).
92. A. Ben-Naim, Solvation thermodynamics of water in aqueous solutions, Part III: Ionic solutions, J. Chem. Phys., 82, 4670-4672 (1985).
93. Y. Marcus and A. Ben-Naim, A study of the structure of water and its dependence on solutes based on the isotope effects on solvation thermodynamics in water, J. Chem. Phys., 83, 4744-4759 (1985).
94. A. Ben-Naim, Solvation thermodynamics of inert gas molecules in inert gas liquids, J. Phys. Chem., 89, 5738-5743 (1985).
95. A. Ben-Naim, *Solvation Thermodynamics*, Plenum Press, NY (1987).
96. A. Ben-Naim, On the role of water in molecular recognition and self-assembly, Proc. Indian Academy of Science, 98, 357-377 (1987).
97. A. Ben-Naim, Is mixing a thermodynamic process? Am. J. Phys., 55, 725-733 (1987).
98. A. Ben-Naim, Mixing and assimilation in systems of interacting particles, Am. J. Phys., 55, 105-109 (1987).
99. A. Ben-Naim, Theory of preferential solvation of nonelectrolytes, Cell Biophys., 12, 255-259 (1988).
100. A. Ben-Naim, K.L. Ting and R.L. Jernigan, Solvation thermodynamics of proteins Part I. Separation of the volume and surface interactions, Biopolymers, 28, 1309-1325.
101. A. Ben-Naim, K.L. Ting and R.L. Jernigan, Solvation thermodynamics of proteins Part II, Correlations between functional groups, Biopolymers, 28, 1327-1337 (1989).
102. A. Ben-Naim, K.L. Ting and R.L. Jernigan, Solvent effect on binding Thermodynamics, Biopolymers, 29, 901-919 (1990).

103. A. Ben-Naim, Preferential solvation in two component systems. J. Phys. Chem., 93, 3809-3813 (1989).
104. A. Ben-Naim, Solvent-induced interactions: Hydrophobic and hydrophilic Phenomena, J. Chem. Phys., 90, 7412-7525 (1989).
105. A. Ben-Naim, Solvent effects on protein association and protein folding, Biopolymers, 29, 567-596. (1990)
106. Mihaly Mezei and A. Ben-Naim, Calculation of the potential of mean force between water molecules in fixed relative orientation in liquid water, J. Chem. Phys., 92, 1359-61 (1990).
107. A. Ben-Naim, Solvent induced forces in protein folding, J. Phys. Chem., 94, 6893-6895 (1990).
108. A. Ben-Naim, On the role of hydrogen-bonds in protein folding and protein association, J. Phys. Chem., 95, 1473-1444 (1990).
109. A. Ben-Naim, Inversion of the Kirkwood-Buff Theory of solutions and its applications in Advances in Thermodynamics Volume 2, Eds. A.G. Mansoori and E. Malleoli, Taylor and Francis, New York, 211-227 (1990).
110. A. Ben-Naim, Preferential solvation in two, and in three-component systems, Pure and Applied Chemistry, 62, 25-34 (1990).
111. A. Ben-Naim, Strong forces between Hydrophilic Macromolecules; Implications in Biological Systems. J. Chem. Phys., 93, 8196-8210 (1991)
112. A. Ben-Naim, *Statistical Thermodynamics for Chemists and Biochemists*, Plenum Press, New York (1992).
113. A. Ben-Naim, Effects on Protein Folding and Protein-Protein Association, Proc. International Workshop on Water-Biomolecule Interactions, Palermo, Italy (1992).
114. A. Ben-Naim, Solvent Effects on Protein Stability and Protein Association, in: Protein-Solvent Interactions. Chapter 9. 387-420, Editor, R.B. Gregory, Marcel Dekker Inc. New York (1995).
115. A. Ben-Naim, Solvation Thermodynamics of Biomolecules, in Water and Biological Macromolecules, in: Topics in Molecular and Structural Biology ed. E. Westhof, Vol. 17, 430-459 (1993).
116. A. Ben-Naim and R. Mazo, Size Dependence of the Solvation Free Energies of Large Solutes, J. Phys. Chem., 97, 10829-834 (1993).
117. J. Wilf and A. Ben-Naim, A Direct Measure of Hydrophilic Interaction. J. Phys. Chem., 98, 8594-95 (1994).

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