

**A TRIBUTE TO PROF. DR. LAVINEL G. IONESCU
ON HIS 70th BIRTHDAY**

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ABSTRACT

Professor Dr. Lavinel G. Ionescu was born of Romanian parents in Vârset (Vrsac, Werschetz), Banat, Yugoslavia (present day Serbia) on May 19, 1943. He attended primary and secondary schools in Yugoslavia, Italy and Switzerland. He did his undergraduate studies at Compton College, University of California at Los Angeles and the University of New Mexico. He obtained the B.S. Degree in Chemistry from the University of New Mexico, Albuquerque, USA in 1964 and the M.S. Degree in 1966. He was awarded the Ph.D. Degree in Physical Chemistry by New Mexico State University, Las Cruces, USA in 1970. He also attended Medical School. Prof. L. G. Ionescu is a U.S. citizen. He did postdoctoral work at the University of California, Santa Barbara and has held faculty positions at universities in the United States and Brazil. He was instrumental in the establishment of many graduate or undergraduate programs in chemistry, chemical engineering, pharmacy, materials science and engineering and science education in Brazil and the United States. His research work includes liquid scintillators, radioactive isotopes, noble gases, solution thermodynamics, surfactants and micelles, micellar catalysis, respiratory pigments, membrane models and history and philosophy of science. He has trained more than one hundred scientists from different parts of the world, is the author of approximately three hundred and fifty scientific works and has been the recipient of many prizes and awards.

RESUMO

Professor Dr. Lavinel G. Ionescu nasceu de pais romenos em Vârset (Vrsac, Werschetz), Banat, Iugoslávia (atualmente Sérvia) em 19 de Maio de 1943. Fez os estudos de primeiro e segundo grau na Iugoslávia, Itália e Suíça. Realizou os estudos de graduação em Compton College, University of California at Los Angeles e University of New Mexico. Ele obteve o título de B.S. em Química na University of New Mexico, Albuquerque, USA em 1964 e o título de M.S. em Química em 1966. Ele obteve o título de Ph.D. em Físico-Química em 1970 em New Mexico State University, Las Cruces, USA. Ele também cursou a Faculdade de Medicina. O Prof. Dr. L. G. Ionescu é cidadão dos Estados Unidos. Realizou estudos de pós-doutorado na University of California, Santa Barbara, USA e ocupou cargos de professor em várias universidades nos Estados Unidos e no Brasil. A sua contribuição foi importante no estabelecimento de cursos à nível de graduação e pós-graduação em química, engenharia química, farmácia, ciência e engenharia dos materiais e educação em ciência no Brasil e nos Estados Unidos. As suas atividades de pesquisa incluem cintiladores líquidos, isótopos radioativos, gases nobres, termodinâmica de soluções, surfatantes e micelas, catálise micelar, pigmentos respiratórios, modelos de membranas e história e filosofia da ciência. Ele preparou mais de cem pesquisadores de várias partes do mundo, é autor de aproximadamente trezentos e cinquenta trabalhos científicos e foi honrado com muitos prêmios e distinções.

KEYWORDS: History of Chemistry, History and Philosophy of Science, Noble Gases, Surfactants and Micelles, Micellar Catalysis, Solution Thermodynamics.

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We have written an extensive article in homage and tribute to Professor Dr. Lavinel G. Ionescu on the occasion of his 55th birthday.
(*Cf. A.D. Martinez and B.J. Kid, South. Braz. J. Chem., 6(6), 1-10, 1998.*)

Professor Lavinel G. Ionescu was born on May 19, 1943 in Vârset (Vrsac, Werschetz), Banat Yugoslavia (present day Serbia). His father, Gheorghe I. Ionescu, a languages teacher and linguist, was originally from Plopeni, Constanta, Romania and his mother Maria (n. Borlovanu) Ionescu, an accountant, was from Alibunar, Banat Yugoslavia.

Prof. Dr. L. G. Ionescu attended primary and secondary schools in Yugoslavia (Samianas-Barite, Alibunar and Uzdin), Italy (Trieste, Seminario Vescovile and Liceo-Ginnasio Dante Alighieri) and Switzerland (Rohrbach b.H., Bern).

He began his undergraduate studies at Compton College, Compton California in 1959 where he was awarded the *Associate in Arts Degree-Cum Laude* in 1961. Subsequently, he continued his undergraduate studies at the University of California, Los Angeles and the University of New Mexico, Albuquerque. He obtained the *Bachelor of Science Degree with a Major in Chemistry and a Minor in Mathematics with Honors* from the University of New Mexico , Albuquerque, USA, in 1964. In 1965 he became a U.S. citizen.

Prof. Dr. Lavinel G. Ionescu obtained the *Master of Science Degree with a Major in Physical Organic Chemistry and a Minor in Physics* from the University of New Mexico in 1966. His M.S. Thesis dealt with the use of dihydronaphthalenes and dihydrophenanthrenes as liquid scintillators , was done under the supervision of Professors Guido H. Daub and Francis Newton Hayes of the Los Alamos Scientific Laboratory and received financial support from the United States Atomic Energy Commission.

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Professor L. G. Ionescu obtained the *Doctor of Philosophy Degree with a Major in Physical Chemistry and Minors in Astrophysics and Biology* from New Mexico State University, Las Cruces, USA in 1970. His Ph. D. Dissertation dealt mainly with solution thermodynamics , included the study of the interaction of leguminous hemoglobin with nitrogen and xenon, the properties of the xenon –water clathrate and the solubility of gases in water and aqueous solutions. The work was performed under the supervision of Professor Gordon J. Ewing and received financial support from the National Science Foundation.

Dr. L. G. Ionescu did postdoctoral work at New Mexico State University and the University of California, Santa Barbara, where he collaborated with Professor Clifford A. Bunton in the area of aggregation colloids and micellar catalysis. He also attended Medical School for several years.

Prof. Dr. Lavinel G. Ionescu began his academic career as Teaching Assistant at the University of New Mexico and New Mexico State University and as Technical Assistant at the University of Alabama, Tuscaloosa, USA, positions held from 1964 to 1970. During the period from 1972 to 1978 he held faculty positions at New Mexico Highlands University, Las Vegas, NM, USA and the University of Detroit, Detroit, Michigan, USA.

In June of 1978, accepting an invitation from the Brazilian Ministry of Education and Culture, Dr. L. G. Ionescu went to Brazil and joined the faculty of the Universidade Federal de Santa Catarina, Florianópolis as *Full Professor of Chemistry*. Together with other American and foreign faculty members he helped establish the Graduate Program in Physical Chemistry and in Physics at UFSC in Florianópolis.

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In 1983, Prof. Dr. Lavinel G. Ionescu moved to Porto Alegre where he became a faculty member at the Universidade Federal do Rio Grande do Sul. He occupied the positions of Full Professor of Materials Science in the School of Engineering and Professor of Chemistry in the Instituto de Química and played an important role in the establishment of the Doctoral Program in Materials Science and Metallurgical Engineering and the Master Program in Chemistry.

In 1992, after denouncing nationwide on radio, television and newspapers ecologic crimes, embezzlement of public funds, corruption and other administrative irregularities at the Universidade Federal do Rio Grande do Sul (UFRGS) he was stripped of all his academic rights and dismissed from the faculty of UFRGS in an arbitrary act that involved harassment, political persecution and had dictatorial and inquisitional overtones. He was forced to ask for special protection from the Brazilian Federal Police and the American Consul. This shameful and sad event in the history of the Federal University of Rio Grande do Sul (UFRGS) led to legal battles that lasted more than two decades and ended up in the Brazilian Supreme Court.

Soon afterwards in 1992, Prof. Dr. Lavinel G. Ionescu was appointed Professor of Chemistry at the Universidade Luterana do Brasil (ULBRA), Canoas, RS and Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), Porto Alegre, positions that he held until 2004, when he retired from academics and began to dedicate his effort to the editing of journals and scientific consulting.

He has been Visiting Professor at the University of California, Santa Barbara, Universidade de Caxias do Sul, Universidade Regional de Blumenau, Universidade Federal de Santa Maria, Instituto Luterano de Ensino Superior, Manaus, Amazonas and other universities in various continents.

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During almost five decades as a faculty member at various universities, Prof. Dr. L. G. Ionescu participated on a wide number of committees and held different administrative positions in the United States and Brazil.

In terms of didactic activities, Professor L. G. Ionescu taught mainly courses in physical chemistry at all levels and occasionally general and inorganic chemistry, biochemistry, quantum mechanics and history and philosophy of science.

He was the first scientist in Brazil to teach a formal advanced course on matter and materials under extreme conditions in Porto Alegre and Manaus, Amazonas.

Prof. Dr. L. G. Ionescu's research activities include liquid scintillators, radioactive isotopes of Fe and Th, noble gases, solution thermodynamics, surfactants and micelles, micellar catalysis, respiratory pigments, membrane models and history and philosophy of science. He has trained more than one hundred scientists from different parts of the world and is the author of approximately 350 scientific papers. A list of representative publications is given at the end of this article.

Prof. Dr. L. G. Ionescu is fluent in many European languages, including Romanian, Serbo-Croatian, Italian, French, Spanish, Portuguese, German, English and others. At times, he surprises people conversing in Chinese, Japanese, Swahili or Hindi.

Prof. L. G. Ionescu is a widely traveled person and his journeys included the Arctic Circle, Sonoran Desert, Sierra Madre, Carpathians, Alps, the Andes and Aconcagua, the Islands of the Pacific and the Amazon.

His hobbies include stamp collecting, mountain climbing, swimming, astronomy, folklore and the traditions of many people.

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Prof. Dr, L. G. Ionescu became widely known throughout Brazil as *Leader of the Pró- Ecologia Group of Porto Alegre and Viamão* after denouncing the ecologic crimes of the Campus do Vale of the Federal University of Rio Grande do Sul, widespread corruption and embezzlement of public funds at the same institution. He appeared on all television channels and many radio programs throughout Brazil and his interviews covered entire pages of *Jornal do Brasil*, the country's most important newspaper at the time.

On the streets of Porto Alegre, many people greet him as the “*Courageous Professor*” and in Viamão, city where he lives since 1983, people address him respectfully as *Professor* or *Professor Lavinel*. Dr. Dimitrios Samios, former Dean of the College of Chemistry and UFRGS’s best known chemist, has made public depositions considering Prof. D. L. G. Ionescu an *archetype*, a model person or prototype that appeared at the wrong place before his time.

Prof. Dr. Lavinel G. Ionescu has received many prizes, distinctions and awards , has given invited lectures in more than twenty five countries and organized or helped organize many scientific events all over the world.

We cite only the *Symposium on Chemistry in Latin America* during the First Chemical Congress of the North American Continent in Mexico City in 1975 and various *International Symposia on Surfactants in Solution*.

He is a member of the American Chemical Society since 1965, Sigma Xi- Scientific Research Society of America, Sigma Pi Sigma-National Physics Honor Society (USA), New Mexico Academy of Science, Michigan Academy of Arts, Science and Letters, New York Academy of Sciences, Founding Member of the American Romanian Academy of Arts and Sciences together with

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Mons. O. Bârlea, Mircea Eliade and George Emil Palade; and Founding President of Sarmisegetusa Research Group of Santa Fe, New Mexico, USA and member of many other learned societies, including the Astronomical Society of Las Cruces.

He was *Researcher IA* of the Brazilian National Research Council (CNPq) and in 2004 he received the *Technology Prize* from PETROBRAS (Brazilian Petroleum Company).

Prof. Dr. L. G. Ionescu is an *Honorary Citizen of the State of New Mexico* and was *Brazilian National Representative* at the International Union of Pure and Applied Chemistry (IUPAC).

When asked about his main contributions in teaching, Prof. L. G. Ionescu cites many courses in *Quantum Chemistry* that opened the frontier in Southern Brazil, the course on *Matter and Materials under Extreme Conditions* and the course on *History and Philosophy of Science*, given to thousands of freshmen students in the sciences and mathematics at ULBRA.

In research he mentions especially the work on relaxation phenomena and liquid dynamics, the use of micelle formation to probe the structure of water and various studies in solution thermodynamics.

He also likes to stress his contributions for several decades, especially as Chief Editor of the *Southern Brazilian Journal of Chemistry* and Editor of the *Brazilian Journal of Materials Science and Engineering*.

We salute Professor Dr. Lavinel G. Ionescu on the occasion of his seventieth birthday, congratulate him for his effort and contributions for almost half a century and wish him happiness, good health, good will and success for the days to come.

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REPRESENTATIVE PUBLICATIONS

1. Lavinel G, Ionescu, *Liquid Scintillators. Some 3-Aryl-1,2-Dihydronaphthalenes. 3-Aryl-1,2-Dihydro-4-Methylnaphthalenes, 3-Aryl-1,2-Dihydrophenanthrenes and 3-Aryl-1,2-Dihydro-4-Methylphenanthrenes. Steric Effects of the Methyl Group*, Master's Thesis, University of New Mexico, Albuquerque, USA, 112pp.
(Work supported by the United States Atomic Energy Commission)
2. Lavinel G, Ionescu, *Attempts to Study the Interaction of Leguminous Hemoglobin with Nitrogen and Xenon*, Doctoral Dissertation, New Mexico State University, Las Cruces, USA, 1970, 178pp., *Dissertation Abstracts Intl.*, B 31(5) 2603 (1970). (Work supported by the National Science Foundation).
3. G. H. Daub, F.N. Hayes, D. W. Holty, L. Ionescu and J.L. Schornick, "Liquid Scintillators XIV. The Synthesis and Evaluation of Some trans-1,2-Diarylethylenes as Liquid Scintillators. The Steric Effects of a Methyl Group" *Molec. Liquid. Crystals*, 4, 343-355 (1968).
4. G. J. Ewing and L.G. Ionescu, "The Interaction of Leguminous Hemoglobin with Nitrogen and Xenon", *J. Phys. Chem.*, 76, 591-596 (1972).
5. C. A. Bunton and L. G. Ionescu, "Hydrolysis of Di-and Tri-substituted Phosphate Esters Catalyzed by Nucleophilic Surfactants", *J. Amer. Chem. Soc.*, 95, 2912-2917 (1973).
6. L.G. Ionescu, "Some Aspects of the Chemistry of Xenon and Other Noble Gases" *Rev. Roum. Chim.*, 18, 1731-1747 (1973).
7. G. J. Ewing and L.G. Ionescu, "The Dissociation Pressure and Other Thermodynamic Properties of the Xenon-Water Clathrate", *J. Chem. Eng. Data*, 19, 367-369 (1974).
8. C.A. Bunton, S. Diaz, J. M. Hellyer, Y. Ihara and L. G. Ionescu "Micellar Effects upon the Reactions of 2,4-Dinitrophenyl Phosphate and Ethyl *p*-Nitrophenyl Phosphate with Amines", *J. Org. Chem.*, 40, 2313-2317 (1974).
9. G. Ionescu, "Teaching Introductory Chemistry in Spanish to Bilingual Students", *J. Chem. Educ.*, 53, 250 (1976).
10. G. J. Ewing and L. G. Ionescu, "Exchange of Leguminous Hemoglobin with Radioactive Iron", *Rev Roum. Biochim.*, 13, 193-195 (1975).
11. J. A. Schufle and L. G. Ionescu, "Fritz Feigl-Brazil's Spot Tester", *J. Chem. Educ.*, 53, 174 (1976).
12. L. G. Ionescu, "The Entropy of Some Simple Gas-Water Clathrates", *Rev. Roum. Chim.*, 23, 45-53 (1978).

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13. L. G. Ionescu, "Purification of Water with Clathrates", *N. Mex. J. Sci.*, 18(2), 22-24 (1978).
14. L. G. Ionescu and J. A. Schufle, "José Luis Casaseca, Founder of the Cuban Institute of Chemical Research", *J. Chem. Educ.*, 55, 583 (1978).
15. L. G. Ionescu and J. K. Tsang, "Interaction of Ferrimyoglobin with Surfactants", *Rev. Roum. Biochim.*, 15, 211-218 (1978).
16. L. G. Ionescu, "Some Romanian Contributions in Astronomy", *St Nicholas Bulletin* (Detroit), 29, 3-6, (1978).
17. J. A. Schufle and L. G. Ionescu, "Weighing Gases on a Single-Pan Balance", *N. Mex. Highlands Univ. Journal*, 1, 38 (1979).
18. L. G. Ionescu, T. Tokuhiro and B.J. Czerniawski, "Formation of Micelles of Cetyltrimethylammonium Bromide in Water-N,N-Dimethylformamide Solutions", *Bull. Chem. Soc. Japan*, 52, 922-924 (1979).
19. T. Tokuhiro, L. G. Ionescu and D. S. Fung, "Effect of Intermolecular Interactions on the Formation of Micelles. Proton Spin-Lattice Relaxation Study in Water-Dimethylsulfoxide Solutions", *J. Chem. Soc. Faraday Trans II*, 75, 975-984 (1979).
20. L. G. Ionescu, T. Tokuhiro, B.J. Czerniawski and E. S. Smith, "Formation of Micelles of Cetyltrimethylammonium Bromide in Water-Dimethylsulfoxide Solutions", in *Solution Chemistry of Surfactants*, Vol. 1, K. L. Mittal, Ed., Plenum Press, New York, USA, 1979, p. 487-496.
21. T. Tokuhiro and L. G. Ionescu, Temperature Effect on Molecular Dynamics in Micellar System. Proton Spin-Lattice Relaxation Study of Cetyltrimethylammonium Bromide in Water-Dimethylsulfoxide Mixtures", in *Solution Chemistry of Surfactants*", Vol. 1, K. L. Mittal, Ed., Plenum Press, New York, USA, 1979, p. 497-506.
22. L. G. Ionescu and A. R. Lopez, "Chemical Analysis of Water Samples from the El Rito River, Rio Arriba County, N. Mexico", *N. Mex. J. Sci.*, 20(1), 8-11 (1980).
23. L. G. Ionescu, "Romanians in the History of Mexico" in *America Almanach*, P. Lucaci, Editor, Union and League of the Romanian American Societies, Inc., Cleveland, Ohio, USA, p. 156-162, 1980.
24. F. Nome, E. W. Schwingel and L.G. Ionescu, "Micellar Effects on the Base Catalyzed Oxidative Cleavage of a Carbon-Carbon Bond in 1,1-bis(p-Chlorophenyl)-2,2,2-Trichloroethanol", *J. Org. Chem.*, 45, 705-711 (1980).

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25. Z. P. Sachet, C.V. De Sande, D. O. P. Trebien, E. M. Axt and L. G. Ionescu, "Estudo da Viabilidade do Tratamento de Água e Dejetos de Indústria Têxtil por Meio do Método de Irrigação por Infiltração", *Anais 5º Congresso de Irrigação e Drenagem*, CONIRD, São Paulo, Brasil, p. 26-49, 1980.
26. L. G. Ionescu and J. A. Schufle, "Alvaro Reynoso-Father of Cuban Sugar Technology", *N. Mex. J. Sci.*, 21(1), 41-43 (1981).
27. L. G. Ionescu and B. J. Czerniawski, "Interaction of Ferriprotoporphyrin IX with Surfactants", *Rev. Roum. Biochim.*, 18, 103-111 (1981).
28. L. G. Ionescu and D. S. Fung, "Formation of Micelles of Acylcarnitines in Glycerol", *Bull. Chem. Soc., Japan*, 54, 2503-2506 (1981).
29. L. G. Ionescu and D. S. Fung, "Formation of Micelles of Acylcarnitine Chlorides in Ethylene Glycol", *J. Chem. Soc. Faraday Trans. I*, 77, 2907-2912 (1981).
30. L. G. Ionescu and V. T. De Fávere, "Formation of Micelles of Cetyltrimethylammonium Bromide in Solutions of Water-Acetone", in *Solution Chemistry of Surfactants – Theoretical and Applied Aspects*, Vol. 1, K.L. Mittal and And E. J., Fendler, Eds., Plenum Press, New York, USA, p. 407-416 , 1982.
31. F. Nome, A. Neves and L.G. Ionescu, "Specific Role of Functional Micelles in the Catalysis of an Elimination Reaction", in *Solution Chemistry of Surfactants-Theoretical and Applied Aspects*, Vol. 2, K.L. Mittal and E.J. Fendler, Eds., Plenum Press, New York, USA, p. 1157-1170 , 1982.
32. L. G. Ionescu, R. A. Yunes and J. A. Schufle, "Horacio Damianovich, Argentine Pioneer in Noble Gas Chemistry", *J. Chem. Educ.*, 59(4), 304 (1982).
33. F. Nome. A. Rubira, C. Franco and L. G. Ionescu, "Limitations of the Pseudo-Phase Model of Micellar Catalysis. The Dehydrochlorination of DDT and Some of Its Derivatives", *J. Phys. Chem.*, 86, 1181-1185 (1982).
34. L. G. Ionescu, R. A. Yunes and J. A. Schufle, "Latin American Contributions in Chemistry. VI. Gustavo Fester, Argentina's Foremost Natural Products Chemist", *N. Mex. Highlands Univ. J.*, 4(1), 32-35 (1983).
35. L. G. Ionescu, D. A. R. Rubio and T. H. M. Do Aido, "Micellar Catalyzed Hydrolysis of a Phosphate Ester at High Hydroxide Concentration. Failure of the Pseudo-Phase Model", *Anais 1ª Conf. Fis. Quím. Org.*, Florianópolis, SC, Brasil, 1982, p.217-229.
36. L. G. Ionescu and P.E. De Brito Moreira, "Formação de Micelas de Cloreto de Cetilpiridínio (CPCI) em Soluções Aquosas de Acetonitrilo", *Quim. & Deriv.*, 17(194), 48 (1982).
37. L. G. Ionescu and M. J. B. Miguez, "Decomposição de Pesticidas Fosforados na Presença de Agentes Tenso-Ativos", *Rev. Quím. Industr.*, 52(609), 23 (1983).

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38. L. G. Ionescu, L. S. Romanesco and F. Nome, "The Effect of Cosolvents on the Formation of Micelles of Cetyltrimethylammonium Bromide in Aqueous Solutions", in *Surfactants in Solution*, Vol. 2, K. L. Mittal and B. Lindman, Eds., Plenum Press, New York, USA, p.789-804, 1984.
39. L. G. Ionescu and F. Nome, "On the Validity of the Pseudo-Phase Model of Micellar Catalysis", in *Surfactants in Solution*, Vol. 2, K. L. Mittal and B. Lindman, Eds., Plenum Press, New York, USA, p. 1107-1120, 1984.
40. L. G. Ionescu and P.E. De Brito Moreira, "Effect of Cosolvents on the Micellization of Cetylpyridinium Chloride (CPCl) in Aqueous Solutions", *Atual. Fis. Quím. Org., (Florianópolis, SC, Brasil)* Vol.2, p.79-88, 1984 (Publ. 1986).
41. L.G. Ionescu, M. J. B. Miguez and B. J. Kid, "Failure of the Pseudo-Phase Model Of Micellar Catalysis. Decomposition of a Phosphate Ester in the Presence of Cetyltrimethylammonium Chloride (CPCL)", *Atual. Fis. Quím. Org., (Florianópolis, SC, Brasil)* Vol. 2, p.89-102 ,1984 (Publ. 1986)..
- 42 L. G. Ionescu, "Quasi-Elastic Light Scattering of Cetyltrimethylammonium Bromide in Aqueous Salt Solutions", *Quím. Nova*, 8(3), 191-192 (1985).
43. L. G. Ionescu, "The Effect of Additives on the Formation of Micelles in Aqueous Solutions ", *Contrib. Cient. Tecnol. Santiago (Chile)*, NS, 35-39 (1985).
44. J. A. Schufle and L. G. Ionescu, "The Philosophy of George Santayana and the Dearth of Hispanic Scientists", *N. Mex. J. Sci.*, 25(1), 13-22 (1985).
45. L. G. Ionescu, "*Estudo de Sistemas Micelares por Espalhamento Quase-Elástico de Luz*", Monografia, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brasil, 1985, 45 pp.
46. D. H. Everett, L. G. Ionescu and Other Members of the IUPAC Commission on Colloid and Surface Chemistry Including Catalysis, "Reporting Data on Adsorption at the Solid/Solution Interface", *Pure and Appl. Chem.*, 58(7), 967-984 (1986).
47. L. G. Ionescu " *Teoria de Combinação Linear de Orbitais Atómicos –Orbitais Moleculares* ", Monografia, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brasil, 1987, 44 pp.
48. L. G. Ionescu and L. S. Romanesco, "Interactions in Binary Liquid Systems Containing Water and Organic Cosolvents", *Atual. Fis. Quím. Org., (Florianópolis, SC, Brasil)*, Vol.3, p.109-122, 1985 (Publ. 1987).
49. L. G. Ionescu and N. A. Wiederkehr, " Interaction of Magnesium Phthalocyanine with Organic Solvents", *Quím. Nova*, 10(3), 246-248 (1987).

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50. L. G. Ionescu, "História da Ciência e o Ensino da Química", Monografia, Sociedade Brasileira de Química – Regional do Rio Grande do Sul, Porto Alegre, RS, Brasil, 1988, 5 pp.
51. L. G. Ionescu, "História e Filosofia da Ciência e o Ensino da Química", Monografia, Universidade Federal de Santa Maria, Santa Maria, RS, Brasil, 1988, 6 pp.
52. L.G. Ionescu, D.A. R. Rubio and L.S. Romanesco, "Catálise de Lítio p-Nitro-Fenil Etil Fosfato (LiPNEF) na Presença de Sal", *Trabalhos Técnicos 4º Seminário Brasileiro de Catálise*, Instituto Brasileiro do Petróleo, Rio de Janeiro, Brasil, 1987, p. 727-734.
53. L. G. Ionescu and C. C. Moro, "Determination of Chlorinated Organic Compounds in Effluents from Cellulose Pulp from Southern Brazil" *Quím. Nova, 12(1)*, 108-110 (1989).
54. L. G. Ionescu, T.H. M. Do Aido and B. J. Kid, "Aggregation of Cetyltrimethylammonium Bromide (CTAB) in Aqueous Solutions Containing Sodium Chloride", *Bol. Soc. Chil. Quím., 35*, 105-111 (1990).
55. J. L. S. Barcelos, A. Muller and L. G. Ionescu, "Estudo da Influência de Agentes Tensoativos na Lama Refratária Sobre o Acabamento Superficial De Peças Microfundidas", *Anais 9º Congresso Brasileiro de Engenharia e Ciência dos Materiais -CBCIMAT*, Vol. 1, Águas de São Pedro, SP, Brasil, 1990, Vol.1, pp. 80-84.
56. L. G. Ionescu, "A Teoria de Ondulação Universal de V. Conta e a Mecânica Quântica ou Ondulatória", in "Anais do 2º Simpósio de História e Filosofia da Ciência", SBQ-RS, Editora Químico Pampeano, Viamão, RS, Brasil, 1990, p.19-26.
57. L. G. Ionescu, Editor, "Anais do 2º Simpósio de História e Filosofia da Ciência- Proceedings of the Second Symposium on Philosophy and History of Science", Sociedade Brasileira de Química-Regional do Rio Grande do Sul, Editora Químico Pampeano, Viamão, RS, Brasil, 1990, 76 pp.
58. V. R. G. Polli, G. U. Soares and L. G. Ionescu, "Efeito da Adição de Brometo e Cloreto de Amônio na Formação de Micelas de Brometo de Cetiltrimetil-amônio", *Ciência e Natura, 11*, 77-82 (1989). (Publ.. 1991)
59. L. G. Ionescu, "Astroquímica – Uma Área Nova Fascinante e Interessante da Química", Monografia, Editora Químico Pampeano, Viamão, RS, Brasil, 1991, 12 pp.

SOUTHERN BRAZILIAN JOURNAL OF CHEMISTRY
SOUTH. BRAZ. J. CHEM., Vol. 21, No. 21, 2013

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60. L. G. Ionescu and E. F. De Souza, "The Formation of Micelles of Cetyltrimethylammonium Bromide in Aqueous Solutions of Methylformamide and Related Compounds", in *Surfactants in Solution*, Vol.2, K.L. Mittal and D.O. Shah, Eds. Plenum Press, New York, USA, 1991, p.570.
61. J. Barcelos, L. G. Ionescu and A. Muller, "Influência do Tipo de Tensoativo Utilizado em Lama de Cobertura de Moldes Cerâmicos sobre o Acabamento de Peças de Alumínio", *1º Workshop Brasileiro de Fundição de Precisão*, Porto Alegre, RS, Brasil, 1993, vol. 2, p.130-141.
62. L. G. Ionescu, "Astroquímica – Uma Área Nova e Interessante da Química", *Químico Pampeano*, 7(26), 4-14 (1993).
63. L. G. Ionescu, "Willy Günter Engel", *Químico Pampeano*, 7(26), 2-3 (1993).
64. L. G. Ionescu, "Ilie G. Murgulescu, Prominent Scientist and Educator", *South. Braz. J. Chem.*, 1(1), 1-4 (1993).
65. L. G. Ionescu and E. F. De Souza, "Micellar Catalyzed Hydrolysis of a Phosphate Ester in Aqueous Solutions of Dimethyl Sulfoxide", *South. Braz. J. Chem.*, 1(1), 75-95 (1993).
66. L. G. Ionescu, "Xorge Alejandro Dominguez, Mexico's Foremost Organic Chemist", *South. Braz. J. Chem.*, 2(2), 1-4 (1994).
67. A. Müller, J. L. S. Barcelos and L.G. Ionescu, "Use of Surfactants Added to Refractory Slurry in Precision Foundry and Investment Castings with Aluminum", *South. Braz. J. Chem.*, 2(2), 41-54 (1994).
68. L. G. Ionescu, A. Muller, J.L. S. Barcelos and E. F. De Souza, "Application of Surfactant Aggregates for Catalysis in Mixed Solvent Systems and in Precision Metal Foundry", *2º Workshop Iberoamericano Sobre Fluidos Complexos e Suas Aplicações*, Serra Negra, São Paulo, Brasil, 1995, 4pp.
69. L. G. Ionescu and Clóvis Antônio Perazzolo, "Luis Frederico Leloir- South America's Only Nobel Laureate in Chemistry", *South. Braz. J. Chem.*, 3(3), 1-8 (1995).
70. L. G. Ionescu and E. F. De Souza, "Internal Pressure of Liquids and the Rate of a Micellar Catalyzed Reaction", *South. Braz. J. Chem.*, 3(3), 63-78 (1995).
71. L G. Ionescu and E. F. De Souza, "Micellar Catalyzed Reactions in Mixed Solvent Systems", in *Surfactants in Solution*, Vol. 64, K. L. Mittal and A. K. Chattopadhyay, Eds., Marcel Dekker Inc., New York, USA, 1966, p. 123-132.

72. L. G. Ionescu "Ernesto Giesbrecht, Great Chemical Educator and Father of Brazilian Inorganic Chemistry", *South. Braz. J. Chem.*, 4(4), 1-8 (1996).
73. L. G. Ionescu, D. A. R. Rubio and E. F. De Souza, "Micellar Catalyzed Hydrolysis of Lithium p-Nitrophenyl Ethyl Phosphate (LiPNEF) and the Pseudo-Phase Ion Exchange Model", *South. Braz. J. Chem.*, 4(4), 59-82 (1996).
74. L. G. Ionescu, "Andrés Manuel Del Rio, Discoverer of Vanadium", *South. Braz. J. Chem.*, 5(5), 1-6 (1997).
75. L. G. Ionescu, *Descoberta, Propriedades e Usos do Hélio no Mundo Moderno*, Monografia, Universidade de Cruz Alta, Cruz Alta, RS, Brasil, 1998, 18 pp.
76. L. G. Ionescu, "Antonio de Ulloa, Discoverer of Platinum", *South. Braz. J. Chem.*, 6(7), 1-6 (1998).
77. L. G. Ionescu, S. M. Hickel Probst and E. F. De Souza, "Formation of Micelles of Cetyltrimethylammonium Bromide in Water-Glycerol Solutions", *South. Braz. J. Chem.*, 6(7), 67-76 (1998).
78. E. F. De Souza and L. G. Ionescu, "Micellar Catalyzed Reactions of a Phosphate Ester: Effect of the Dielectric Constant of the Medium" *Colloids and Surfaces, A*, 149, 609-615 (1999).
79. L. G. Ionescu, *Aspectos do Desenvolvimento da Físico-Química*, Monografia, Associação Brasileira de Química, Regional de Goiás, Goiânia, GO, Brasil, 1999, 15 pp.
80. L. G. Ionescu, "A Tribute to Professor Clifford A. Bunton on His 80th Birthday", *South. Braz. J. Chem.*, 7(8), 1-10 (1999).
81. L. G. Ionescu, S. Dani and E. F. De Souza, "Physical Chemical Studies of the Aggregation and Catalytic Properties of the Surfactant Cetyltrimethyl-ethylammonium Bromide (CDEAB)", *South. Braz. J. Chem.*, 7(8), 105-114 (1999).
82. L. G. Ionescu, V. Trindade and E. F. De Souza, "Application of the PseudoPhase Ion Exchange Model to a Micellar Catalyzed Reaction in Water-Glycerol Solutions", *Langmuir*, 16(3), 988-9932 (2000).
83. E. F. De Souza , V. Trindade and L. G. Ionescu, " Micellar Catalyzed Reaction of a Phosphate Ester: Effect of the Co-Solvent and the Pseudo-Phase Ion Exchange Model", *Proceedings of the 5th World Surfactants Congress*, CESIO-Comité Européen des Agents de Surface et Leur Intermédiaires Organiques and FEDERCHIMICA Assobase – P.I.T.I.O.- Produttori Italiani de Tensioativi ed Intermedi Organici, Milano, Italy, 2000, Vol. 1, 765-773.

SOUTHERN BRAZILIAN JOURNAL OF CHEMISTRY
SOUTH. BRAZ. J. CHEM., Vol. 21, No. 21, 2013

A Tribute to Prof. L. G. Ionescu on His 70th Birthday

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84. L. G. Ionescu , S. Dani and E. F. De Souza, "Physical Chemical Studies and Catalytic Properties of the Surfactant Methyldecylbenzyltrimethylammonium Chloride (MDBTACl), *South. Braz. J. Chem.*, 8(9), 85-95 (2000).
85. L. G. Ionescu and P.C. Pereira das Neves, "Chemical Elements, Alloys and Minerals Occuring Naturally in Meteorites", *South. Braz. J. Chem.*, 9(10), 47-62 (2001).
86. L.G. Ionescu, "100th Anniversary of the Birth of Costin D. Nenitzescu", *South. Braz. J. Chem.*, 10(11), 1-10 (2002).
87. I. Vedana, A. Müller and L.G. Ionescu, "Physical and Chemical Properties of Conventional Pattern Wax and Reformulated Pattern Wax Used in Metal Casting" *South. Braz. J.Chem.*, 10(11), 49-62 (2002).
88. L.G. Ionescu, "Book Review- Solidificação e Análise Térmica dos Metais / Solidification and Thermal Analysis of Metals, Arno Müller, Author", English and Portuguese, *South. Braz. J. Chem.*, 10(11), 95-96 (2002) and *Technología*, 4(1,2), 49-50 (2003).
89. L.G. Ionescu and E.F. de Souza, "Surface Tension and Entropy of Vaporization of Liquid Metals", *Brazilian J. of Mat. Sci. and Eng.*, 5, 31-44 (2003).
90. L. G. Ionescu, "Book Review – Introdução à Mineralogia Prática – Autores P.C.P. das Neves, F. Schenato, F. A. Bachi," English and Portuguese, *South. Braz. J. Chem.*, 11(12), 21-23 (2003).
91. L. G. Ionescu, "Astroquímica e Astronomia – Entrevista", *Tchê Química*, 1(1), 6-8 (2004).
92. L. G. Ionescu and A.A. Souto, "Determination of trans-Resveratrol in Some Romanian Wines and Spirits", *South. Braz. J. Chem.*, 12(12), 27-34 (2004).
93. L. G. Ionescu, L.A. B. de Boni and E. Goldani, "Anildo Bristotí, a Pioneer in Science in Rio Grande do Sul," *South. Braz. J. Chem.*, 12(12), 35-43 (2004).
94. L. G. Ionescu and B. K. Sumner, "Catarina, South America's First Hurricane. A Signal of Global Climatic Changes", *South. Braz. J. Chem.*, 12(12), 45-51 (2004).
95. L. G. Ionescu, "Book Review- Fundamentos de Físico-Química – Autores P. A. Netz, G. Ortega", English and Portuguese, *South. Braz. J. Chem.*, 12(12), 53-57 (2004).

SOUTHERN BRAZILIAN JOURNAL OF CHEMISTRY
SOUTH. BRAZ. J. CHEM., Vol. 21, No. 21, 2013

A. D. Martinez and B. J. Kid

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96. L. G. Ionescu and L.A. B. de Boni, "Theodoro Augusto Ramos – a Brazilian Contribution to the Model of the Atom", *South. Braz. J. Chem.*, 13(13), 1-12 (2005).
97. L. G. Ionescu, J. M. Hohemberger, J. Vicenzi and C.P. Bergmann, "Elimination and Control of Aquatic Pests in the Environment", *South. Braz. J. Chem.*, 13(13), 81-91 (2005).
98. L.G. Ionescu, "Prof. Dr. Anildo Bristoti (1936-2004): Um Cientista Pioneiro do Rio Grande do Sul", *Technología*, 6(2) , 153-156 (2005), *Tchê Química*, 3(5), 60-62 (2006).
99. J.M. Hohemberger, C.P. Bergmann and L.G. Ionescu, "Presence of Mercury in Petroleum", *South. Braz. J. Chem.*, 14(14), 17-25 (2006).
100. J. M. Hohemberger, C.P. Bergmann and L.G. Ionescu, "Mercury Corrosion of Cryogenic Aluminum Heat Exchangers", *South. Braz. J. Chem.*, 14(14), 27-38 (2006).
101. L. G. Ionescu and L.A. Brandini de Boni, "Glimpses of the History of Chemistry in Mexico", *South. Braz. J. Chem.*, 14(14), 39-65 (2006).
102. C.P. Bergmann, T.M. Basegio, D.L. Vilanova, J.M. Hohemberger, A.M. Bernardes and L. G. Ionescu, "Immobilization of Chromium Ions from Ash Generated by Incineration of Tanned Leather Shavings by Means of Vitrified Ceramic Bodies", in *Ceramic Materials Research Trends*, Paul B. Lin, Editor, Nova Science Publishers, New York, NY, USA, 2007, Vol. 1, Chapter 11, pp. 275-323.
103. L.G. Ionescu, L.A. B. de Boni and E. Goldani, "A Tribute to Prof. Dr. Faruk Nome on his 60th Birthday", *South. Braz. J. Chem.*, 15(15), 1-14 (2007).
104. L.G. Ionescu, P.C.P. das Neves, F. Schenato and F.A. Bach, "The Periodic Table of the Elements and the Associated Minerals: Gold", *South. Braz. J. Chem.*, 15(15), 29-41 (2007).
105. L.G. Ionescu, V.L. Trindade and E. F. de Souza " Micellar Catalyzed Reaction in Aqueous Glycerol Solutions and the Internal Pressure of the Medium", *South. Braz. J. Chem.*, 16(16), 41-57 (2008).
106. P.C.P. das Neves and L. G. Ionescu, " The Periodic Table of the Elements and the Associated Minerals: Uranium", *South. Braz. J. Chem.*, 16(16), 59-82 (2008).

SOUTHERN BRAZILIAN, JOURNAL OF CHEMISTRY
SOUTH. BRAZ. J. CHEM. , Vol. 21, No. 21, 2013

A Tribute to Prof. L. G. Ionescu on His 70th Birthday

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107. L. G. Ionescu, "Book Review "Introdução á Mineralogia Prática – Autores P. C. P. das Neves, F. Schenato, F. A. Bachi", 2^a. Edição, Portuguese and English, *South. Braz. J. Chem.*, 16(16), 81-86 (2008).
108. E. F. de Souza, S. Dani and L.G. Ionescu, "Physical Chemical Studies of the Surfactant Dilauryldimethylammonium Bromide (DLDMAB) : Aggregation and Catalytic Properties", *South. Braz. J. Chem.*, 17(17), 21-32 (2009).
109. L.G. Ionescu, "Cristofor I. Simionescu, "Founder of the Romanian School of Macromolecular Chemistry", *South. Braz. J. Chem.*, 17(17), 41-55 (2009).
110. L. G. Ionescu, "Cristofor Simionescu, Fundador da Escola Romena de Química Macromolecular", *South. Braz. J. Chem.*, 17(17) 57-71 (2009).
111. . G. Ionescu, Book Review, "Homens, terra e água - a relação que envolve instintos eternos"- "Mankind, Earth and Water- The Relationship that Involves Eternal Instincts", Author, Haidi Fiedler, *South. Braz. J. Chem.*, 17(17), 73-79 (2009).
112. P.C.P. das Neves, D.V. de Freitas and L.G. Ionescu, "Mineralogical Aspects of Rare Earths", *South. Braz. J. Chem.*, 18(18), 37-48 (2010).
113. L.G. Ionescu, "Walter Lwowski, New Mexico's Great Organic Chemist", *South. Braz. J. Chem.*, 18(18), 65-85 (2010).
114. L. G. Ionescu, "Tadashi Tokuhiro, Prominent Specialist in NMR Relaxation Phenomena and Molecular Dynamics", *South. Braz. J. Chem.*, 19(19), 1-16 (2011).
115. L. G. Ionescu, "Arthur F. Fishkin, Prominent Biochemist and Educator", *South. Braz. J. Chem.*, 19(19), 59-83 (2011).
116. L. G. Ionescu, P.C.P. das Neves and D.V. de Freitas, "Mineralogic Aspects of Arsenic- The Arsenate Minerals", *South. Braz. J. Chem.*, 19(19), 85-106 (2011).
117. L. G. Ionescu, "Otto R. Gottlieb, Father of Brazilian Phytochemistry", *South. Braz. J. Chem.*, 20(20), 3-10 (2012).
118. P.C.P. das Neves and L.G. Ionescu, "Os Minerais do Berílio (Beryllium Minerals)", *South. Braz. J. Chem.*, 20(20), 99-118 (2012).
119. P. C. P. das Neves, D. Atencio and L.G. Ionescu, "A Brief History of Mineralogy in Brazil", *South. Braz. J. Chem.*, 21(21), 109-127 (2013).

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