

Curriculum Vitae

PERSONAL DETAILS:

Name: RAMESH LAXMINARAYAN GARDAS
Present Address: Department of Chemistry, University of Aveiro, 3810-193 Aveiro, Portugal.
Permanent Address: Serve No.20/4, Plot No. I - 11, Near Seventh Day English School,
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Mobile: +351 964073254 +91 9825925986
Sex: Male
Marital Status: Married
Date of Birth: 20.08.1977
Nationality: Indian

ACADEMIC QUALIFICATION:

B.Sc. (Chemistry) 600/900, 66.67% (April -1998)
South Gujarat University, Surat, Gujarat, INDIA.

M.Sc. (Physical Chemistry) 703/1000, 70.30% (April -2000)
South Gujarat University, Surat, Gujarat, INDIA.

Ph.D. October-2004
Veer Narmad South Gujarat University, Surat, Gujarat, INDIA.

Title of Ph.D. Thesis:

“Thermodynamic Studies of non-electrolyte binary and ternary liquid mixtures.”

Ph.D. Guide: Prof. S.L. Oswal, Department of Chemistry,
Veer Narmad South Gujarat University, Surat, Gujarat, INDIA.

Post – Doc. Research:

(1) From: 15 August 2005 To: 15 December 2005

Title: “PVT data of water + alcohol and alcohol + ester mixtures in the range 298.15 to 353.15 K and pressures up to 80 MPa.”

Place: The Research Centre for Chemical Processes Engineering and Forest Products (CIEPQPF) of Chemical Engineering Department, Faculty of Sciences and Technology, University of Coimbra, Coimbra, Portugal.

Tel: +351 239 798 700 Fax: +351 239 798 703

Coordinator: Prof. Abel G.M. Ferreira

Tel: +351 239 798 729 e-mail: abel@eq.uc.pt

(2) From: 1 January 2006 (Till Date)

Title: “Water solubility and octanol-water partition coefficients of Ionic Liquids”

Place: CICECO, Department of Chemistry, University of Aveiro, Aveiro, Portugal.

Tel: +351 234 370 360 Fax: +351 234 370 084

Coordinator: Prof. João A.P. Coutinho

Tel: +351 234 370 200 e-mail: jcoutinho@dq.ua.pt

TEACHING EXPERIENCE:

(1) Adhoc Lecturer in Chemistry

From: December 2002 To April 2003

At: Shree Jayendra Puri Arts & Science College,
Bharuch, Gujarat, INDIA.

(2) Visiting Lecturer in Chemistry

From: August 2003 To November 2004

At: Chemistry Section, Applied Science and Humanities Department,
S.V.National Institute of Technology (Deemed University),
Surat-395 007, Gujarat, INDIA.

(3) Teaching Assistant in Chemistry

From: January 2005 To May 2005 &

From: July 2005 To August 2005

At: Chemistry Section, Applied Science and Humanities Department,

S.V.National Institute of Technology (Deemed University),

Surat-395 007, Gujarat, INDIA.

AWARD:

- Best Poster Presentation Award for the poster entitled “Octanol-Water Partition Coefficients of Imidazolium based Ionic Liquids” presented at 2nd National Conference on Thermodynamics of Chemical & Biological systems, Organized by The Indian Thermodynamics Society, hosted by Department of Chemistry, Veer Narmad South Gujarat University, Surat, India, from October 30 to November 1, 2006.

MEMBERSHIP:

- The Indian Thermodynamics Society

MANUSCRIPTS REVIEWED FOR:

- Journal of Chemical and Engineering Data (American Chemical Society)
- Physical Chemistry Chemical Physics (Royal Society of Chemistry)
- Journal of Colloid and Interface Science (Elsevier)
- Journal of Solution Chemistry (Springer)
- European Physical Journal E (Springer)

EXTRA CURRICULAR ACTIVITIES:

- Certificate Course of Portuguese Language for Foreigners (Level-I) (60 Hours) (First Class with Marks 15 out of 20) from Departamento de Linguas e Culturas, Universidade de Aveiro, Portugal.
- Honorary service as a “Friend of Police” for Surat City Police, Gujarat, India, during year 2000-2001.
- Honorary service as a “Jt. Secretary of Educational Committee” for Shree Markandeya Padmashali General Samaj, Surat, Gujarat, India, during year 2004-2006.

REFERENCES:

(1) Prof. João A.P. Coutinho

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University of Aveiro, Aveiro, Portugal.
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(2) Prof. Abel G.M. Ferreira

Chemical Engineering Department,
University of Coimbra, Coimbra, Portugal.
Tel: +351 239 798 729
Mobile: +351 919307659
Fax: +351 239 798 703
e-mail: abel@eq.uc.pt

(3) Prof. S.L. OSWAL

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: +91-261-225-8384(Chem.Deptt.)
Mobile: +91 9825146343
Fax: +91-261-222-7212
e-mail: oswalsl@satyam.net.in

(4) Prof. G.N. MEHTA

Head, Applied Science and Humanities Department,
S.V. National Institute of Technology (Deemed University),
Surat-395 007, Gujarat, INDIA.
Tel: +91-261-222-3371 Extn. 241(SVNIT)
Mobile: +91 9327987064
Fax: +91-261-222-8394
e-mail: gnm@ashd.svnit.ac.in, girish17in@yahoo.com

CONFERENCES :

Paper Presented:

(1) Excess molar volumes and viscosity study of 1-propanol + triethylamine + cyclohexane at 303.15 K (ORAL)

S. L. Oswal, R. L. Gardas

41st Annual Convocation of Chemists, Organized by Indian Chemical Society, hosted by University of Delhi, India on December 23-27, 2004.

(2) Excess molar volumes and viscosity study of 1-butanol + triethylamine + cyclohexane at 303.15 K (ORAL)

S. L. Oswal, R. L. Gardas

National Conference on Thermodynamics of Chemical & Biological systems, Organized by The Indian Thermodynamics Society, hosted by Gurunanak Dev University, Amritsar, India on December 28-30, 2005.

(3) Excess molar volume and viscosity study of 1-propanol + tributylamine + cyclohexane ternary mixture at 303.15 K (ORAL)

S. L. Oswal, R. L. Gardas

2nd National Conference on Thermodynamics of Chemical & Biological systems, Organized by The Indian Thermodynamics Society, hosted by Department of Chemistry, Veer Narmad South Gujarat University, Surat, India, from October 30 to November 1, 2006.

(4) PVT property measurements for some aliphatic esters from 298 to 393 K and up to 35 MPa (ORAL)

Ramesh L. Gardas, Irudayaraj Johnson, David M. D. Vaz, Isabel M. A. Fonseca, Abel G. M. Ferreira

2nd National Conference on Thermodynamics of Chemical & Biological systems, Organized by The Indian Thermodynamics Society, hosted by Department of Chemistry, Veer Narmad South Gujarat University, Surat, India, from October 30 to November 1, 2006.

(5) High Pressure Densities and Derived Thermodynamic Properties of Imidazolium Based Ionic Liquids (POSTER)

R.L. Gardas, M. G. Freire, P. J. Carvalho, I. M. Marrucho, A. G. M. Ferreira, I. M. A. Fonseca, J. A. P. Coutinho

2nd National Conference on Thermodynamics of Chemical & Biological systems, Organized by The Indian Thermodynamics Society, hosted by Department of Chemistry, Veer Narmad South Gujarat University, Surat, India, from October 30 to November 1, 2006.

(6) Octanol-Water Partition Coefficients of (Imidazolium-Based) Ionic Liquids (POSTER)

R. L. Gardas, M. G. Freire, I. M. Marrucho, J. A. P. Coutinho

2nd National Conference on Thermodynamics of Chemical & Biological systems, Organized by The Indian Thermodynamics Society, hosted by Department of Chemistry, Veer Narmad South Gujarat University, Surat, India, from October 30 to November 1, 2006.

(7) Octanol-water partition coefficients of ionic liquids (POSTER)

R. L. Gardas, P. J. Carvalho, S. Ventura, I. M. Marrucho, J. A. P. Coutinho

"Advanced Characterization of Materials" - V edition of Jornadas CICECO, University of Aveiro, Portugal, from 24 to 25 January, 2008.

Attended:

(8) 9th International Chemical Engineering Conference: ChemPor 2005, Faculty of Sciences and Technology, University of Coimbra, Coimbra, Portugal on September 21-23, 2005.

(9) Seminar on "Size and Shape of Particles – Theory and Applications", Organized by PARALAB (Equipments for Industries and Laboratories, S.A.) at University of Porto, Portugal on 26 September, 2006.

(10) Nano@ciceco: Nanoscience and Nanotechnology - IV edition of Jornadas CICECO, University of Aveiro, Portugal, from 11 to 12 January, 2007.

(11) Science meeting (Ciência em Portugal – Ciência 2007, Encontro com os Laboratórios Associados) at Fundação Calouste Gulbenkian, Lisbon, Portugal, on 12 & 13 April, 2007.

Co-author in Paper Presented:

(12) Octanol-water partition coefficients of (imidazolium-based) ionic liquids (POSTER)

R. L. Gardas, M. G. Freire, I. M. Marrucho, J. A. P. Coutinho

EUCHEM Conference on Molten Salts and Ionic Liquids, 16-22 September 2006, Hammamet, Tunisia.

(13) High pressure densities and derived thermodynamic properties of imidazolium based ionic liquids (POSTER)

R. L. Gardas, M. G. Freire, P. J. Carvalho, I. M. Marrucho, A. G. M. Ferreira, I. M. A. Fonseca, J. A. P. Coutinho

EUCHEM Conference on Molten Salts and Ionic Liquids, 16-22 September 2006, Hammamet, Tunisia.

(14) Mutual Solubilities of Imidazolium based ionic liquids and water and the Hofmeister series (ORAL)

M. G. Freire, P. J. Carvalho, R.L. Gardas, L. M. N. B. F. Santos, I. M. Marrucho, J. A. P. Coutinho

EUCHEM Conference on Molten Salts and Ionic Liquids, 16-22 September 2006, Hammamet, Tunisia.

(15) Octanol-water partition coefficients of ionic liquids (POSTER)

R. L. Gardas, P. J. Carvalho, S. Ventura, I. M. Marrucho, J. A. P. Coutinho

BATIL-Meeting (Biodegradability and Toxicity of Ionic Liquids) Berlin, Germany (6-8 May, 2007).

(16) Liquid-Liquid Equilibria of Water + Ionic Liquids (ORAL)

M. G. Freire, R. L. Gardas, P. J. Carvalho, L. M. N. B. F. Santos, I. M. Marrucho, J. A. P. Coutinho

European Congress of Chemical Engineering, ECCE-6, Copenhagen, Denmark (16-21 September, 2007).

(17) Ionic Liquids and Water Mutual Solubilities (ORAL)

M. G. Freire, P. J. Carvalho, R. L. Gardas, L. M. N. B. F. Santos, I. M. Marrucho, J. A. P. Coutinho

Thermodynamics 2007, Rueil-Malmaison, France (26-28 September 2007).

(18) Development of CAMD tools for the design of task specific ionic liquids (ORAL)

João A. P. Coutinho, Ramesh L. Gardas

6th Annual Workshop of Engineering and Process Systems (12 March 2008), Chemical Engineering Department, University of Coimbra, Portugal. (<http://www.eq.uc.pt/gepsi/ws2008.html>)

PUBLICATIONS :

31. Volumetric and transport properties of ternary mixtures containing 1-butanol or 1-pentanol, triethylamine and cyclohexane at 303.15 K: Experimental data, correlation and prediction by ERAS model (Under Preparation)

R. L. Gardas and S. L. Oswal

30. Measurements and Correlation of High Pressure Densities of Imidazolium Based Ionic Liquids (Under Preparation)

Ramesh L. Gardas, Luciana I. N. Tomé, Pedro J. Carvalho, Mara G. Freire, Isabel M. Marrucho, Isabel M. A. Fonseca, Abel G. M. Ferreira, and João A. P. Coutinho

29. Mutual solubilities of fatty acids and water with the group contribution CPA EoS (Under Preparation)

M. B. Oliveira, **R. L. Gardas**, I. M. Marrucho, A. J. Queimada, J. A. P. Coutinho

28. Water Solubilities in Phosphonium based Ionic Liquids (Under Preparation)

Ramesh L. Gardas, Mara G. Freire, Pedro J. Carvalho, Isabel M. Marrucho, Luís M. N. B. F. Santos, and João A. P. Coutinho

27. Octanol-Water Partition Co-efficients of Imidazolium based Ionic Liquids
Green Chemistry (Ready to submit for review)

Ramesh L. Gardas, Sónia P.M. Ventura, Isabel M. Marrucho, and João A. P. Coutinho

26. Group Contribution Methods for the Prediction of Thermophysical and Transport Properties of Ionic Liquids

AIChE Journal (Ready to submit for review)

Ramesh L. Gardas and João A. P. Coutinho

25. PVT Property Measurements for Ethyl Propionate, Ethyl Butyrate and Ethyl Pentanoate Esters from 298 to 393 K and up to 35 MPa

Journal of Chemical and Engineering Data (submit for review on 11 April 2008)

Henrique F. Costa, **Ramesh L. Gardas**, Irudayaraj Johnson, Isabel M. A. Fonseca, and Abel G. M. Ferreira

24. Volumetric and transport properties of ternary mixtures containing 1-propanol, triethylamine or tri-n-butylamine and cyclohexane at 303.15 K: Experimental data, correlation and prediction by ERAS model

The Journal of Chemical Thermodynamics (submit for review on 24 March 2008)

S. L. Oswal and **R. L. Gardas**

23. A Group Contribution Method for Heat Capacity Estimation of Imidazolium based Ionic Liquids
Industrial & Engineering Chemistry Research (submitted for review on 28 February 2008)

Ramesh L. Gardas and João A. P. Coutinho

22. Estimation of speed of sound of ionic liquids using surface tensions and densities: A volume based approach

Fluid Phase Equilibria (In Press, Accepted Manuscript, Available online 18 March 2008)

Ramesh L. Gardas and João A. P. Coutinho

21. A Group Contribution Method for Viscosity Estimation of Ionic Liquids

Fluid Phase Equilibria Volume 266, Issues 1-2, 25 April 2008, Pages 195-201.

Ramesh L. Gardas and João A.P. Coutinho

**Citations: 0*

20. Acoustic and Volumetric Properties of Aqueous Solutions of Imidazolium Based Ionic Liquids at 298.15 K

The Journal of Chemical Thermodynamics Volume 40, Issue 4, April 2008, Pages 695-701.

Ramesh L. Gardas, Dilip H. Dagade, Santosh S. Terdale, João A. P. Coutinho, and Kesharsingh J. Patil

**Citations: 0*

19. Densities and Derived Thermodynamic Properties of Imidazolium-, Pyridinium-, Pyrrolidinium-, and Piperidinium- Based Ionic Liquids

Journal of Chemical and Engineering Data Volume 53, Issue 3, March 2008, Pages 805-811.

Ramesh L. Gardas, Henrique F. Costa, Mara G. Freire, Pedro J. Carvalho, Isabel M. Marrucho, Isabel M. A. Fonseca, Abel G. M. Ferreira, and João A. P. Coutinho

**Citations: 0*

18. Applying a QSPR Correlation to the Prediction of Surface Tensions of Ionic Liquids.

Fluid Phase Equilibria Volume 265, Issues 1-2, 25 March 2008, Pages 57-65.

Ramesh L. Gardas and João A. P. Coutinho

**Citations: 1*

17. Thermodynamic Studies of Ionic Interactions in Aqueous Solutions of Imidazolium Based Ionic Liquids [Emim][Br] and [Bmim][Cl]

Journal of Physical Chemistry B Volume 112, Issue 11, 20 March 2008, Pages 3380-3389.

Ramesh L. Gardas, Dilip H. Dagade, João A. P. Coutinho, and Kesharsingh J. Patil

**Citations: 0*

16. Mutual solubilities of water and [C_nmimTf₂N] ionic liquids.

Journal of Physical Chemistry B Volume 112, Issue 6, 14 February 2008, Pages 1604-1610.

Mara G. Freire, Pedro J. Carvalho, **Ramesh L. Gardas**, Luis M. N. B. F. Santos, Isabel M. Marrucho, and João A. P. Coutinho

**Citations: 0*

15. Extension of the Ye and Shreeve Group Contribution Method for Density Estimation of Ionic Liquids in a wide range of Temperatures and Pressures.

Fluid Phase Equilibria, Volume 263, Issue 1, 15 January 2008, Pages 26-32.

Ramesh L. Gardas and João A. P. Coutinho

**Citations: 2*

14. Non ideal behaviour of a room temperature ionic liquid in mono or poly ethers at (298.15, 308.15, and 318.15) K

The Journal of Chemical Thermodynamics, Volume 40, Issue 1, January 2008, Pages 32-39.

Arvind Kumar, Tejwant Singh, **Ramesh L. Gardas** and João A.P. Coutinho

**Citations: 0*

13. Mutual solubilities of water and hydrophobic ionic liquids.

Journal of Physical Chemistry B Volume 111, Issue 45, 15 November 2007, Pages 13082-13089.

Mara G. Freire, Catarina M. S. S. Neves, Pedro J. Carvalho, **Ramesh L. Gardas**, Luis M. N. B. F. Santos, Isabel M. Marrucho, and João A. P. Coutinho

*Citations: 1

12. PpT Measurements of Imidazolium-Based Ionic Liquids

Journal of Chemical and Engineering Data Volume 52, Issue 5, July 2007, Pages 1881-1888.

Ramesh L. Gardas, Mara G. Freire, Pedro J. Carvalho, Isabel M. Marrucho, Isabel M. A. Fonseca, Abel G. M. Ferreira, and João A. P. Coutinho

*Citations: 7

11. PVT Property Measurements for Some Aliphatic Esters from (298 to 393) K and up to 35 MPa

Journal of Chemical and Engineering Data Volume 52, Issue 3, March 2007, Pages 737-751.

Ramesh L. Gardas, Irudayaraj Johnson, David M. D. Vaz, Isabel M. A. Fonseca, and Abel G. M. Ferreira

*Citations: 1

10. High-Pressure Densities and Derived Thermodynamic Properties of Imidazolium-Based Ionic Liquids

Journal of Chemical and Engineering Data Volume 52, Issue 1, January 2007, Pages 80-88

Ramesh L. Gardas, Mara G. Freire, Pedro J. Carvalho, Isabel M. Marrucho, Isabel M. A. Fonseca, Abel G. M. Ferreira, and João A. P. Coutinho

*Citations: 20 (#1 Most-Cited Articles Published in *J. Chem. Eng. Data* in 2007)

9. Density, speeds of sound, isentropic compressibilities, refractive indices and viscosities of binary mixtures of tetrahydrofuran with haloalkane or alkylethanoate at T = 303.15 K

Thermochimica Acta, Volume 426, Issues 1-2, February 2005, Pages 199-206.

S. L. Oswal, **R. L. Gardas** and R. P. Phalak

*Citations: 6

8. Speeds of sound, isentropic compressibilities, viscosities and excess molar volumes of binary mixtures of alkanoates, with tetra- and trichloromethanes at 303.15 K

Thermochimica Acta, Volume 426, Issues 1-2, February 2005, Pages 141-149.

S. L. Oswal, D.B. Gheewala, K.D. Prajapati, **R. L. Gardas**, N.Y. Ghael and S. P. Ijardar

**Citations: 3*

7. Density, speeds of sound, isentropic compressibilities, refractive indices and viscosities of binary mixtures of tetrahydrofuran with hydrocarbons

Journal of Molecular Liquids, Volume 116, Issue 2, 30 January 2005, Pages 109-118.

S. L. Oswal, **R. L. Gardas** and R. P. Phalak

**Citations: 7*

6. Acoustic, volumetric, compressibility and refractivity properties and reduction parameters for the ERAS and Flory models of some homologous series of amines from 298.15 to 328.15 K

Fluid Phase Equilibria, Volume 216, Issue 1, 15 February 2004, Pages 33-45.

S. L. Oswal, P. Oswal, **R. L. Gardas**, S. G. Patel and R. G. Shinde

**Citations: 12*

5. Speeds of sound, isentropic compressibilities, and excess molar volumes of cycloalkanes, alkanes and aromatic hydrocarbons at 303.15 K. II. Results for cycloalkanes+aromatic hydrocarbons

Journal of Molecular Liquids, Volume 109, Issue 3, 15 February 2004, Pages 155-166.

S. L. Oswal, M. M. Maisuria and **R. L. Gardas**

**Citations: 5*

4. Acoustic, volumetric, compressibility and refractivity properties and Flory's reduction parameters of some homologous series of alkyl alkanoates from 298.15 to 333.15 K

Thermochimica Acta, Volume 410, Issues 1-2, 9 February 2004, Pages 1-14.

S. L. Oswal, P. Oswal, P. S. Modi, J. P. Dave and **R. L. Gardas**

**Citations: 8*

3. Speeds of sound and isentropic compressibilities of binary mixtures containing trialkylamines with alkanes and mono-alkylamines at 303.15 and 313.15 K

Fluid Phase Equilibria, Volume 215, Issue 1, 15 January 2004, Pages 61-70.

S. L. Oswal, S. G. Patel, **R. L. Gardas** and N. Y. Ghael

**Citations: 14*

2. Application of the Prigogine-Flory-Patterson theory employing Bloomfield- Dewan equation for viscosity of binary mixtures of cycloalkane with cycloalkane, alkane and aromatic hydrocarbons

South Gujarat University Journal, Volume 1, 2003, Pages 18-22.

S. L. Oswal, M. M. Maisuria and **R. L. Gardas**

1. Viscosity of binary mixtures of cycloalkane with cycloalkane, alkane and aromatic hydrocarbon at 303.15 K

Journal of Molecular Liquids, Volume 108, Issues 1-3, November 2003, Pages 199-215.

S. L. Oswal, M. M. Maisuria and **R. L. Gardas**

**Citations: 4*

**Source: SCOPUS, as on 18 April 2008*

**Total Citations: 91 (for 18 documents)*

h index = 6 (6 out of 18 documents have each been cited at least 6 times)