# **Curriculum Vitae**

### Personal information

First name(s) / Surname(s)

Sudharsan S

Official address

PhD Research Scholar.

C/o Dr. N. Raman, Research Department of Chemistry, VHNSN College, Aruppukkottai road, Virudhunagar – 626 001. Mobile: +919976334288

E-mail(s)

spsudharsans@gmail.com; spsudharsans@yahoo.com

Nationality

Gender

Male

Date of birth

19 July 1983

Indian

Research Publications 1. Phase-assisted synthesis and DNA unpacking evaluation of biologically inspired metallo nanocomplexes using peptide as unique building block N. Raman, S. Sudharsan, J. Colloid Interface Sci., 364-1 (2011) 140-147.

> 2. Phase transfer synthesis of N,N'(1,2-phenylene)bis-hippuricamide tethered metal based functionalized nanoparticles: A study on some novel microbial targeting peptide-mimic nanoparticles

N. Raman, S. Sudharsan, Appl. Surf. Sci., 257-24 (2011) 10659-10666.

 Synthesis and structural reactivity of inorganic-organic hybrid nanocomposites – A review

N. Raman, S. Sudharsan, K. Pothiraj, J. Saudi Chem. Soc., (in press).

- Metallation of ethylenediamine based Schiff base with biologically active Cu(II). Ni(II) and Zn(II) ions: Synthesis, spectroscopic characterization, electrochemical behaviour, DNA binding, photonuclease activity and in vitro antimicrobial efficacy N. Raman, A. Selvan, S. Sudharsan, Spectrochim Acta-Part A, 79-5 (2011) 873-
- Three Research works communicated to Material Science and Engineering C. European Journal of Medicinal Chemistry and International journal of Pharmaceutics journals.

#### Workshops / Conferences

Participated in a national seminar on 'Nanotechnology for Energy and Environmental applications-2009' (NTEEA-09) organised by Department of Chemistry/Centre for Nanotechnology, Kalasalingam University on Apr 9, 2009.

Participated in an one day intercollegiate seminar on Recent Advances in Chemistry (ReSAC 10) organised by DST-FIST sponsored Department of Chemistry, VHNSN College, Virudhunagar on Mar 10, 2010.

Presented a paper entitled 'DNA interaction studies of metal nanocomplexes tailored with N,N'(1,2-phenylene)bishippuricamide - An inspiring forecast towards their biodynamic nanoprobing personality', in the DST, CSIR, DRDO & UGC sponsored National Seminar on Chemistry of Nanomatetials and Molecular Dynamics, organized by the Department of Chemistry, Annamalai University, Annamalainagar, December 30 & 31, 2010.

Presented a paper entitled 'Novel metal nanocomplexes composed of N,N'-(2,2'-(ethane-1,2-diylbis(azanediyl))bis(2-oxoethane-2,1-diyl))dibenzamide for microbial cell targeting delivery' in the DST sponsored National Level Seminar on Recent Trends in Bio-Inorganic Chemistry (RTBIC-2011), organized by the Department of Chemistry, VHNSN College, Virudhunagar, February 17 & 18, 2011.

Presented a paper entitled 'Synthesis of metal nanocarriers encumbered with N.N'-(2,2'-(propane-1,3-diylbis(azanediyl)-bis(2-oxoethane-2,1-diyl)dibenzamide-An insight towards their drug delivery approach in targeting fungal and bacterial strains', in the UK-India Medicinal Chemistry MEDCHEM Congress (an International Conference), organized by Royal Society of Chemistry (RSC) National Institute of Pharmaceutical Education and Research (NIPER) and Indian Institute of Chemical Technology (IICT), held at Hyderabad, February 25 & 26, 2011.

Presented a paper entitled 'DNA binding and EMSA studies of novel metal nanocomplexes modified with N,N'-(2,2'-(ethane-1,2-diylbis(azanediyl)-bis(2-oxoethane-2,1-diyl)dibenzamide', in the UGC, CSIR and DST sponsored National Seminar on Nanostructured Materials and Applications, organized by the Department of Physical Chemistry, School of Chemistry, Madurai Kamaraj University, Madurai, March 4 & 5, 2011.

Presented a paper entitled 'Modern synthesis of metal nanocomplexes - A modified Brust-Schiffrin approach' in an UGC-SAP sponsored National Seminar on Novel Synthetic and Computational Strategies in Chemical Sciences (SCCS-2011) , organized by the Department of Chemistry, Annamalai University, Annamalainagar, December 30 & 31, 2010.

Presented a paper entitled 'Modified Brust-Schiffrin synthesis and optical properties of metal nanocomplexes', in the UGC sponsored National Conference on Role of Chemists in Advanced Chemistry, organized by the Department of Chemistry, Ayya Nadar Janaki Ammal College, Sivakasi, July 25 & 26, 2011.

Presented a paper entitled 'Inorganic-organic hybrid nanocomplexes - A modern synthetic approach towards their reactivity against DNA', in the UGC sponsored National Seminar on Emerging Trends in Chemistry (ETC-2011), organized by the Department of Chemistry, VHNSN College, Virudhunagar, July 28 & 29, 2011.

Presented a paper on 'Organization of DNA splitting inorganic-organic hybrid nanocomplexes for the inhibition of cancer augmentation-An in vitro assessment', in the DST-FIST and UGC-SAP supported **International Conference** on Synthetic and Structural Chemistry (ICSSC-2011), organized by the Department of Studies in Chemistry, Mangalore University, Mangalore, Karnataka, December 8-10, 2011

Selected as a **Young researcher** and Presented a paper on 'Tweezing out the antitumoral mechanism of peptido nanocomplexes', in the DST-Nanomission sponsored **International Conference** on Nanoscience and Technology (ICONSAT-2012), organized by International Advanced Research Centre for Powder Metallurgy and New Materials, Hyderabad, January 20-23, 2012.

# **Experience**

Six Years (Jun 22 ' 2005 - Till date)

Duration

22/06/2005 - 31/07/2006

Occupation or position held

R&D Chemist

Main activities and responsibilities

Developed new products based on matching color contents and capsaicin contents in chilly oleoresins based on the customer requirements.

Developed/Validated new methods for the chemical and microbiological analysis of edible oils/ chilly oleoresin and other food products in GC & HPLC.

Handful experience in trouble-shooting GC & HPLC.

Developed new products related to Xanthophylls through extraction and recrystallisation from chilly oleoresin for the usage in pharmaceutical industries Over-all drafting and documentation of ISO-HACCP documents for Laboratory.

Name and address of employer

Paprika Oleos India Itd

15, Perali road, Virudhunagar – 626 001 (India)

Type of business or sector

Commercial Food and Chemical Industry

Duration

22/11/2006 - 16/06/2007

Occupation or position held

Senior Research Fellow

Main activities and responsibilities

Handled a research study on micronutrients in tea plants and thereby explored the critical level of the micronutrients to overcome the related deficiencies.

Analysis of minerals, micronutrients and biochemical parameters in soil and tea leaves through various sophisticated instruments like UV & AAS.

Name and address of employer

UPASI Tea research Institute

Nirar Dam BPO, Valparai – 642 127, Coimbatore district (India)

Type of business or sector

Research Institute

**Duration** 

22/06/2007 - 30/11/2008

Occupation or position held

Assistant Manager - Product development

Main activities and responsibilities

Developed new emulsifiers for agrochemicals products, Home care & Personal care

Developed surfactants for Wettable powder (Carbendazim & Sulfosulfuron) and common emulsifier for Emulsifiable concentrates.

Developed commercially important FMCG like car wash, Hair wash shampoos, Hand wash creams etc.

Inspecting, sampling and analyzing the quality of raw materials meant for Production.

Analysing the new samples for R&D by carrying out wet analysis and with the help of spectrophotometers, Karl fisher titrators.

Evaluating Performance tests for Emulsifiable concentrates & application tests for Wettable powders.

Name and address of employer

Standard Surfactants Ltd

24 A&B, New Sector Industrial Area, Mandideep – 462 046, Bhopal (India)

Type of business or sector

Commercial Detergents/Fertilizers/Surfactants manufacturing Industry

**Duration** 

on 

13/12/2008 → Present date

Occupation or position held

Non-stipendiary Full time PhD Research Scholar

Main activities and responsibilities

Synthesizing novel inorganic metal nanocomplexes and applying them for various biological studies like anti-bacterial, anti-fungal, DNA binding via UV-Vis, Cyclic voltammetry etc after spectral characterisation via IR, UV-Vis and CV studies.

Name and address of Institution

VHNSN College

College road, Arupukkottai road, Virudhunagar – 626 001 (India)

Type of business or sector

Academic Institute

# **Education and training**

Title of qualification awarded

SSLC(Senior Seconday school Leaving Certificate) / X matric

Course duration

04/06/1997 - 01/04/1998

Principal subjects

Languages, Maths, Science and Social Sciences

[% of marks scored] [77.7%]

Name and type of organisation providing education and training

Besant LVR Matric Hr Sec School

33, 1st Avenue, Besant Nagar, Chennai – 600 090 (India)

Title of qualification awarded

XII/ Higher Secondary

Course duration 0

01/07/1998 - 01/04/2000

Principal subjects

Maths, Physics, Chemistry and Biology

[% of marks scored]

[79.5 %]

Name and type of organisation providing education and training

KVS Higher Secondary School Madurai road, Virudhunagar – 626 001 (India)

Title of qualification awarded

**Bachelor of Science in Chemistry (General)** 

Course duration

01/08/2000 - 01/06/2003

Principal subjects

Chemistry, Physics, Maths

[% of marks scored] [

[72.36 %]

Name and type of organisation providing education and training

Vivekananda College (Madurai Kamaraj University)

Sholavandan road, Tiruvedakam (West), Madurai – 625 217 (India)

#### Title of qualification awarded

### **Master of Science in Chemistry (General)**

Course duration

04/06/2003 - 01/05/2005

Principal subjects

Inorganic, Organic and Physical Chemistry

[% of marks scored] [66 %]

Name and type of organisation providing education and training

VHNSN College (affiliated to Madurai Kamaraj University) College road, Arupukkottai road, Virudhunagar – 626 001 (India)

## Title of qualification pursuing

#### PhD in Chemistry

Course duration

13/12/2008 → Present date

Principal subjects

Inorganic Chemistry/ Nanochemistry

Exposure in carrying out analysis in the sophisticated instruments like UV-Vis Spectrophotometer (Genesys-5, Genesys-6), FT-IR (Shimadzu IR-Affinity), HPLC (HP-1100), Cyclic voltammetry (CHI-620 instruments) and GC (HP-5890, HP-6890). Knowledge of using databases like Chemdraw, Chembiodraw, Ortep-3, Origin-8 &

Chemwindow.

Name and type of organisation providing education and training

VHNSN College (affiliated to Madurai Kamaraj University) College road, Arupukkottai road, Virudhunagar – 626 001 (India)

Technical skills and competences

Exposure in carrying out analysis in the sophisticated instruments like UV-Vis Spectrophotometer (Genesys-5, Genesys-6), FT-IR (Shimadzu IR-Affinity), HPLC (HP-1100), Cyclic voltammetry (CHI-620 instruments) and GC (HP-5890, HP-6890).

Knowledge of using databases like Chemdraw, Ortep-3 & Origin-8. Expertise in literature survey on databases like Scopus, Springerlink and Sciencedirect.

Organisational skills and competences

During my PhD, along with my research supervisor, I have successfully organized two national seminars titled Recent Trends in Bio-Inorganic Chemistry (RTBIC - 2011) and Emerging Trends in Chemistry (ETC - 2011).

Computer skills and competences

Competent with most Microsoft Office programmes

Other educational skills and competences Other degrees pursued:

Certificate in Mass Communication and Public Speech; Certificate in Visual basic and Internet; Certificate in Yoga; Diploma and Certificate in Sericulture technology

Social skills and competences

Active participant in National Service Scheme (NSS)

Personal skills and competences Interested in story writing and tamil poetry

Personal Interests

Interested to visit Conferences, Science exhibition and Modern art galleries. Listen Music, Play and enjoy all sports particularly Cricket. Love to travel and experience different cultures.

## Additional information

Father's name: Mr. M. Sankaranarayanan (Late)

Mother's name: Mrs. S. Premavathi

Sex: Male

Date of Birth: 19.07.1983

Age: 28 years

Marital Status: Single Nationality: Indian

Languages known: Tamil, English & Hindi

Driving licence(s): Indian drivers' license for Motor vehicle with and without gears.

Details of Passport: Passport No: H7656793; Date of issue: 17/11/2009

Date of expiry: 16/11/2019; Place of issue: Madurai

## References • Dr. N. Raman,

The Guide,

Associate Professor of Chemistry,

VHNSN College, Virudhunagar - 626 001

Email: drn\_raman@yahoo.co.in

Dr. S. Venkatesan,

Senior Scientist,

Cavinkare R&D Centre, Chennai.

Email: drsvenkatesan@gmail.com

Dr. R. Sevvel,

Associate Professor of Chemistry,

Vivekananda College, Tiruvedakam (West), Madurai.

Mob: 9865708536

Dr. K. Rajasekaran,

Emeritus Professor of Chemistry,

VHNSN College, Virudhunagar - 626 001

Email: krsekaran@yahoo.com

#### Declaration

I hereby declare that all the above information is complete and true to the best of my knowledge.



S. SUDHARSAN