Faculty Profile of Dr. K. Srinivasan



Dr. K. Srinivasan
Professor and Head
Department of Physics

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Research Area

- Crystallization & Polymorphism
- Nucleation Kinetics
- Crystal Size Distribution

Education & Career

Education

Ph. D.

Subject: Physics

Institution: Alagappa University, Karaikudi-630 003

Affiliated University: Alagappa University, Karaikudi-630 003

Year of Award: 1997

M. Sc.

Subject: Physics

Institution: National College, Tiruchirappalli-624 001

Affiliated University: Bharathidasan University

Year of Award: 1991

Career

At Bharathiar University (Reverse Order)

Professor: 22-01-2014 to Till Date

Associate Professor: 22-01-2011 to 21-01-2014

Reader: 22-01-2008 to 21-01-2011

Awards

- 1. Fellow of the Royal Society of Chemistry (FRSC) 31st January 2020
- 2. Fellow of the Academy of Sciences Chennai (FASCh) (2019)
- 3. Prof. P. Ramasamy National Award for Crystal Growth and Characterization by Indian Association for Crystal Growth, India (2018)
- Ariviyal Kazhangiyam-Eminent Scientist Award by MTS Academy, Chennai, India (2016)
- 5. International Travel Support Award by DST-SERB to attend 17th
 International Conference on Crystal Growth and Epitaxy (ICCGE-17),
 Poland (2013).
- 6. INSA travel support Award to attend 15th International Summer School on Crystal Growth (ISSCG-15) Poland (2013).
- 7. Young Scientist (Fast Track Scheme) Award by Department of Science and Technology (DST)-SERB (2007)

- 8. Performance Linked Incentive Scheme-Certificate of Achievement and Award, Alagappa University, Karaikudi (2006)
- 9. Young Scientist Award by International Organization Crystal Growth (IOCG)-ICCGE-13, Japan (2001)
- 10. Young Scientist Award by International Union of Crystallography (IUCr)-ISSCG-11, Japan (2001)
- 11. Best book Award by the Government of Tamil Nadu (2001)
- 12. Young Scientist Award by the International Union of Crystallography (IUCr)-ISPD-I, IACS Kolkatta (1998)
- 13. Senior Research Fellow (SRF) Award by the Council of Scientific and Industrial Research (CSIR), New Delhi (1994)

Membership in Professional Bodies

Member

Life Member: Indian Association of Crystal Growth (IACG)

Period: 06.04.1992 to Till Date

Life Member

Member: Materials Research Society of India (MRSI)

Period: 03.12.2008 to Till Date

Life Member

Member: Indian Laser Association (ILA)

Period: 01.01.1998 to Till Date

Life Member

Member: Indian Physical Society (IPS)

Period: 12.12.2008 to Till Date

Life Member

Member: Indian Science Congress Association (ISCA)

Period: 05.03.2009 to Till Date

Member

Member: British Association of Crystal Growth (BACG)

Period: From 2002 to Till Date

Member

Member: American Chemical Society (ACS)

Period: 20.06.2019 to Till Date

Member

Member: Optical Society of America (OSA)

Period: 08.11.2019 to Till Date

Academic Bodies

Member

Member: Fellow of the Royal Society of Chemistry, London

Period: 31.01.2020 onwards

Member

Member: Fellow of The Academy of Sciences, Chennai

Period: Lifetime

Visits

Country Visited: South Korea

Duration of Visit: 27 - 30 August 2018

Purpose of Visit: To attend the 13th International Workshop on the Crystal

Growth of Organic Materials (CGOM-13), Seoul

Country Visited: Malaysia

Duration of Visit: 6 - 8 August 2018

Purpose of Visit: To attend the 2nd Southeast Asian Conference on Crystal

Engineering (SEACCE-2), Bandar Sunway

Country Visited: Singapore

Duration of Visit: 20 - 22 June 2018

Purpose of Visit: To attend the Asian Crystallization Technology

Symposium 2018 (ACTS-2018), Biopolis

Country Visited: Poland

Duration of Visit: 11 -16 August 2013

Purpose of Visit: To attend 17th International Conference on Crystal

Growth and Epitaxy (ICCGE-17), Warsaw

Country Visited: Poland

Duration of Visit: 4 -10 August 2013

Purpose of Visit: To attend 15th International Summer School on Crystal

Growth (ISSCG-15), Gdansk

Country Visited: Spain

Duration of Visit: 21 - 25 May 2012

Purpose of Visit: To attend International School of Crystallization (ISC-

2012), Granada

Country Visited: China

Duration of Visit: 1 - 14 August 2010

Purpose of Visit: To attend 14th International Summer School on Crystal

Growth (ISSCG-14)

Collaborators

Others

Projects

Funded Projects (National Level)

- Ongoing
- Completed-05

Ongoing Projects List with necessary Information

1. CSIR

Title Of the project: Investigation on the Crystallization, Polymorphism, Habit Modification, Solution

mediated Phase Transformation and Optical properties of the Amino Acid: L-Glutamic Acid

Funding Agency: CSIR

Amount: Rs. 17.43 Lakhs **Duration:** 2008-2012

2. **DST**

Title Of the project: Investigation on the Crystallization, Polymorphism, Habit Modification, Solution

mediated Phase Transformation and Optical properties of the Amino Acid: Glycine

Funding Agency: DST-SERB Fast Track Scheme for Young scientists

Amount: Rs. 11.28 lakhs **Duration:** 2008-2012

3. UGC-MRP

Title Of the project: Investigation on the ultrasound assisted control of nucleation, separation, shape,

size and single crystalline growth of alpha lactose monohydrate (a-LM) polymorphs for food and

pharmaceutical applications
Funding Agency: UGC-MRP
Amount: Rs. 11.99 lakhs
Duration: 2013-2016

4. DRDO-BU CLS Phase-II Programme

Title Of the project: Development of deuterated and L-Alanine doped

TGS Single Crystals for Uncooled

Pyroelectric Infrared Detector Applications

Funding Agency: DRDO-BU CLS Phase-II Programme

Amount: Rs. 25.20 lakhs **Duration:** 2014-2017

5. **CSIR**

Title Of the project: Investigation on the control of Liquid-Liquid Phase

Separation (LLPS) and Isolation

of Vanillin Polymorphs for Industrial Applications through Novel

Crystallization Techniques

Funding Agency: CSIR Amount: Rs. 12.90 lakhs Duration: 2017-2020

Consultancy Projects

- Ongoing
- Completed

Ongoing Consultancy Project Informations
Completed Consultancy Project Informations

Research Guidance

- Post Doc.
- Ph.D.
- M.Phil.
- M.Sc.

Ongoing

Title

Name

Completed

Title

Name

Ongoing

Sample Data.

Completed-12

A. Mythili

Title of the thesis:Studies on the Nucleation and Growth of 4aminobenzophenone (ABP), N-benzyl-2-methyl-4-nitroaniline (BNA) and 4nitro-4'-methyl benzylidene aniline (NMBA) Single Crystals through various Crystal Growth Techniques and their Characterization for Nonlinear Optical Applications

Thesis Submitted:2022

V. Manikandan

Title of the thesis: Studies on the Nucleation, Kinetics and Unidirectional Growth behaviour of

Methyl-p-Hydroxybenzoate (p-MHB) Single Crystals grown from Solution and Formation of a New Co-Crystal p-MHB with Urea

Year of Award:2022

M. Suresh

Title of the thesis: Nucleation Control and Separation of α and β Polymorphs of DL-Methionine through Various Crystallization Processes Year of Award:2021

S. Supriya

Title of the thesis: Investigation on the Control of Liquid-Liquid Phase Separation (LLLPS) and Isolation of Vanillin Polymorphs through Novel Crystallization Techniques

Year of Award:2020

P. SampathKumar

Title of the thesis: Crystal Growth and Investigation of Triglycine Sulphate Family Single Crystals for the Fabrication of Pyroelectric Infrared Detectors and Polymorphic Investigation of Diisopropylammonium Chloride Hemihydrate

Year of award: 2019

K. Vinodhini

Title of the thesis: The effect of various Crystallization Processes on the Control of Nucleation, Shape, Size and Single Crystalline Growth of Alpha-Lactose Monohydrate (α -LM) and its Polymorphism

Year of award: 2018

R. Kalaivanan

Title of the thesis: Synthesis, growth and characterization of N-benzyl-2-methyl-4-nitroaniline (BNA) and Potassium dihydrogen phosphate (KDP) single crystals from solutions with different chemical environments for nonlinear optical applications

Year of award: 2017

K. Sritharan

Title of the thesis: Growth of bulk single crystals of Methyl p-hydroxybenzoate (p-MHB) and Ammonium dihydrogen Phosphate (ADP) through various Crystal Growth Methods and their Characterizations for Nonlinear Optical Applications

Year of award: 2017

P. Parimaladevi

Title of the thesis: Control of crystal size and morphology of alpha-lactose monohydrate (α -LM) and Polymorphism and liquid-liquid phase separation (LLPS) of vanillin through solution crystallization processes

Year of award: 2016

C. Sudha

Title of the thesis: Nucleation Control, Separation and Growth of Mono, Ortho and Unstable polymorphs of the Pharmaceutical Solid Paracetamol through Various Crystallization processes

Year of award: 2014

K. Renukadevi

Title of the thesis: The role of Charge Compensation Mechanism and the Effect of Various Crystallization processes on the Nucleation and Growth of Glycine polymorphs

Year of award: 2014

P. Dhanasekaran

Title of the thesis: Nucleation Control and Separation of L-glutamic Acid polymorphs by Swift Cooling Crystallization process and Growth and

Characterization of Single Crystals of L-glutamic Acid -Halogen Derivatives

Year of award: 2013

Ongoing

Sample Data.

Completed-25

S. Kavipriya

Title of the thesis: Crystallization of Paracetamol Polymorph through Swift

Cooling Method

Year of award: 2019

T. Anitha

Title of the thesis: Crystallization of Glycine Polymorphs in the presence of

Selective Additives Year of award: 2018

S. Sivan

Title of the thesis: Anti-solvent Crystallization of L-Glutamic Acid Polymorphs

Year of award: 2018

M. Malarvizhi

Title of the thesis: Nucleation and separation of different forms of cholesterol

by solution growth techniques

Year of award: 2017

S. Vigneselvan

Title of the thesis: Crystallization of L-Histidine polymorphs and their

structural characterization

Year of award: 2016

P. Punithavathi

Title of the thesis: Crystallization of DL-Methionine polymorphs and their

structural characterization

Year of award: 2016

R. Karthika

Title of the thesis: Crystallization of L-Phenylalanine polymorphs and their

characterization

Year of award: 2016

V. Manikandan

Title of the thesis: Growth of Methyl p-Hydroxybenzoate (p-MHB) Signle

Crystals from melt by Czochralski technique

Year of award: 2015

R. Nandhini

Title of the thesis: Polymer induced Crystallization of Paracetamol

Polymorphs by Swift Cooling Crystallization Process

Year of award: 2013

C. Kavitha

Title of the thesis: Growth of Bulk Single Crystals of Vanillin from Aqueous

solution and their Characterization

Year of award: 2013

K. Gowripriya

Title of the thesis: Effect of L-Valine on the Nucleation Control and

Separation of L-Glutamic Acid Polymorphs by Swift Cooling Crystallization

Process

Year of award: 2013

V. Gnanakamatchi

Title of the thesis: Crystallization of Glycine Polymorphs from Pure Aqueous

Solution by Swift Cooling Crystallization Process

Year of award: 2013

P. Vinutha

Title of the thesis: Growth of Cholesterol Single Crystals by Gel Method and

their Characterization Year of award: 2012

C. Parimaladevi

Title of the thesis: Growth of Hippuric Acid Single Crystals by Gel Method and

their Characterization Year of award: 2012

S. Sivakumar

Title of the thesis: Effect of L-Phenylalanine on the Nucleation and Growth of

L-Glutamic Acid Polymorphs

Year of award: 2011

R. Kalaivanan

Title of the thesis: Growth and Characterization of Paracetamol Single

Crystals

Year of award: 2011

P. Gnanaprakasam

Title of the thesis: Crystal Growth of Glycine Polymorphs

Year of award: 2011

V. Sumithra

Title of the thesis: Growth and Characterization of L-Arginine Phosphate

Single Crystals

Year of award: 2010

C. Sudha

Title of the thesis: Growth and Characterization of Ammonium Hydrogen

Phthalate and Potassium Hydrogen Phthalate Single Crystals

Year of award: 2010

M. Shanmuga Sundaram

Title of the thesis: Crystal Growth and Characterization of α and β

Polymorphs of L-Glutamic Acid

Year of award: 2010

K. Renuka Devi

Title of the thesis: Growth and Characterization of Glycine Phosphite Single

Crystals

Year of award: 2010

R. Sriramprabha

Title of the thesis: Growth and Characterization of α and γ polymorphs of

Glycine

Year of award: 2010

B. Raneesh

Title of the thesis: Growth and Characterization of Urea DL-Malic Acid

(UDLMA) Single Crystals

Year of award: 2009

K. Vanitha Devi

Title of the thesis: Growth and Characterization of L-Ascorbic Acid Single

Crystals

Year of award: 2009

S. Kanimozhi

Title of the thesis: Growth and Characterization of m-Nitroaniline

Year of award: 2009

Ongoing

Sample Data.

Completed-36

G. Nandhu Varshini

Title of the thesis: Crystallization of Acetylsalicylic Acid (ASA) Polymorphs through template assisted swift

cooling process

Year of award: 2022

S. Ahamed Sahid

Title of the thesis: Crystallization of Ethyl Maltol Polymorph in the presence

of Maltol as an additive through slow evaporation method

Year of award: 2022

S. Sivasankar

Title of the thesis: Growth of defect free 4-aminobenzophenone (ABP) single

crystals for

opto-electronic applications

Year of award: 2021

A. Santhiya

Title of the thesis: Synthesis, growth and characterization of 4-nitro-4'-methyl benzylidene aniline (NMBA) single crystals for NLO applications

Year of award: 2021

S. Nivetha

Title of the thesis: Crystallization of Vanillin using ethyl vanillin as an Additive

through slow evaporation method

Year of award: 2019

V. Abirami

Title of the thesis: Single crystal growth of 4-aminobenzophenone (ABP) from

organic solvents for Second Harmonic Generation (SHG)

Year of award: 2020

K. Sujitha

Title of the thesis: Growth and Characterization of Vanillin from solvent

mixtures by Slow Evaporation Crystallization Process

Year of award: 2019

M. Kowsalya

Title of the thesis: Nucleation, Growth and Characterization of Methyl p-

Hydroxy Benzoate (p-MHB) single crystals

Year of award: 2019

A. Kamaleshwaran

Title of the thesis: Anti-solvent Crystallization of DL-Methionine

Year of award: 2019

T. Susikumar

Title of the thesis: Crystallization of BNA (N-Benzyl-2-Methyl-4-Nirtroaniline)

from melt and its characterization

Year of award: 2018

A. Lishanthini

Title of the thesis: Nucleation and Growth of Methyl p-Hydroxy Benzoate (p-

MHB) single crystals from solution

Year of award: 2018

S. Sushmitha

Title of the thesis: Crystallization of Vanillin from aqueous solution through

Vapour Diffusion Crystallization Process

Year of award: 2018

C. Sowmya

Title of the thesis: Crystallization of α and β polymorphs of L-Phenylalanine

from aqueous solution

Year of award: 2017

S. R. Ancis Beaula

Title of the thesis: Crystallization of α -DL-Methionine from aqueous solution

Year of award: 2017

S. Sivan

Title of the thesis: Nucleation control and separation of L-Histidine

polymorphs through swift cooling crystallization process

Year of award: 2017

A. Mythili

Title of the thesis: Effect of temperature and concentration on the Refractive

index of α -Lactose Monohydrate aqueous solution.

Year of award: 2016

R. Divya Bharathi

Title of the thesis: Studies on Mutarotaion of α -Lactose Monohydrate in

aqueous solution through polarimeter analysis.

Year of award: 2016

S. Kalidas

Title of the thesis: Growth and characterization of organic 2-Methyl-4-Nitro

Aniline crystal.

Year of award: 2015

S. Supriya

Title of the thesis: Effect of sonication on Liquid-Liquid Phase separation and

crystallization of vanillin in aqueous solution.

Year of award: 2015

R. Sivanarendiran

Title of the thesis: Effect of Ultrasound and Magnetic Field on the Nucleation

Control and Crystallization of Paracetamol Polymorphs

Year of award: 2014

A. Raja

Title of the thesis: Influence of Ultrasound and Magnetic Field on the

Nucleation Characteristics of Glycine Polymorphs

Year of award: 2014

M. Shankar

Title of the thesis: Effect of L-lysine on the Nucleation Control and Separation

of L-glutamic acid polymorphs by Swift Cooling Crystallization Process

Year of award: 2013

G. Janani

Title of the thesis: Effect of Acetanilide on the Nucleation and Growth of

Mono Paracetamol Polymorph

Year of award: 2013

R. Kanchanadevi

Title of the thesis: Effect of L-Tyrosine on the Nucleation and Growth of

Glycine Polymorphs Year of award: 2013

R. Nandhini

Title of the thesis: Growth and Characterization of Paracetamol Single

Crystals

Year of award: 2012

R. Mahendran

Title of the thesis: Growth of L-Glutamic Acid Hydrobromide Single Crystals

and their Characterization

Year of award: 2012

D. Manikandan

Title of the thesis: Growth of Pure and L-Phenylalanine Doped Glycine Single

Crystals and their Characterization

Year of award: 2012

Darsana Damodaran

Title of the thesis: Growth and Characterization of TGS Single Crystals

Year of award: 2011

M. Lalitha

Title of the thesis: Growth of L-Arginine Phosphate Single Crystals and their

Characterization

Year of award: 2011

T. Anbumani

Title of the thesis: Growth of L-Ascorbic Acid Single Crystals and their

Characterization

Year of award: 2011

A. Jeyalakshmi

Title of the thesis: Single Crystal Growth of Ce3Ru4Sn13 and their Magnetic

Properties

Year of award: 2010

A. Rajalakshmi

Title of the thesis: Growth of α and γ Glycine Single Crystals by Slow

Evaporation Method and their Characterization

Year of award: 2010

C. Sudha

Title of the thesis: Fabrication of Sublimation Growth System and the Growth

of α -Resorcinol Single Crystals

Year of award: 2009

K. Rajkumar

Title of the thesis: Fabrication of Stepper Motor driver for Reversible Seed Rotation Unit and Growth of Methyl p-Hydroxybenzoate Single Crystals

Year of award: 2009

V. Kavitha

Title of the thesis: Fabrication of solar Water Distillation Unit and Growth of

Potassium Acid Phthalate Single crystals

Year of award: 2009

B. Karthikeyan

Title of the thesis: Fabrication of Slow Evaporation Chamber With Optical

Heating System and Growth of TGS Single Crystals

Year of award: 2009

Research Publication

- International
- National
- Patents
- Conferences

- Books / Chapters
- Database

Reverse Chronological Order

2023-2022

- 84. <u>C-H activation and subsequent C-C bond formation in rigid alkenes</u> catalyzed by Ru(III) metallates
 - S. Dharani, G. Kalaiarasi, Vincent M. Lynch, K. Srinivasan and R.

Prabhakaran

Reaction Chemistry and Engineering 8 (2023)164-174

83. <u>Single crystal growth of 4-aminobenzophenone (ABP) by micro-capillary</u> Czochralski melt technique

for second harmonic generation (SHG) applications

- A. Mythili and K. Srinivasan
- J. Cryst. Growth 601(2023)126946.
- 82. Crystal structure and Hirshfeld surface analysis of dl-methionine polymorphs (α and β)

M. Suresh, K. Srinivasan Journal of Molecular Structure 1250 (2022) 131721

81. Crystallization of DL-methionine polymorphs in the presence of structurally compatible Additives

Manivel Suresh and Karuppannan Srinivasan*
Molecular Crystals and Liquid Crystals 745 (2022) 68-83

- 80. <u>Isolation and stabilization of metastable Form-II polymorph of vanillin</u>
 Supriya Sundareswaran and Srinivasan Karuppannan
 Chemical Engineering Technology 45 (2022) 687-693
- 79. <u>Single Crystal Growth of 4-aminobenzophenone (ABP) by Solution and Seeded Czochralski Pulling</u>

Techniques for Second Harmonic Generation Applications

Mythili Aruchamy and Srinivasan Karuppannan Crystal Research and Technology 2200103(2022)(1-9)

78. <u>Concomitant Polymorphism and Nucleation Control of DL-Methionine</u> through Antisolvent

Crystallization Method

Manivel Suresh and Karuppannan Srinivasan Chemical Engineering Technology 44 (2021) 614

77. <u>Crystal structure, hirshfeld surface analysis and phase transformation</u> behaviour of

diisopropylammonium chloride hemihydrate crystals

Sampathkumar Pongiappan and Srinivasan Karuppannan Journal of Physics and Chemistry of Solids 153 (2021) 110008

76. <u>Influence of additives on the crystal growth kinetics and growth rate of</u> Ammonium dihydrogen

phosphate (ADP) single crystals

Sritharan Krishnamoorthi and Srinivasan Karuppannan Materials Science & Engineering B 263 (2021) 114858

75. <u>Influence of solute-solvent interactions at the crystal-solution interface</u> on the growth and

morphology of the nonlinear optical single crystal methyl-phydroxybenzoate (p-MHB)

K. Sritharan, V. Manikandan and K. Srinivasan Journal of Molecular Structure 1243(2021)130870

74. <u>Nucleation control and separation of vanillin polymorphs I and II</u> through Swift cooling

crystallization process

Sundareswaran Supriya and Karuppannan Srinivasan CrystEngComm, 23 (2021) 1634

- 73. Second harmonic generation ability of vanillin polymorphs I and II Supriya Sundareswaran and Srinivasan Karuppannan Optics and Laser Technology 134 (2021) 106667
- 72. <u>Effect of Solvent Properties on the Growth, Morphology, and Second</u> Harmonic Generation Ability

of 4-Aminobenzophenone (ABP) Single Crystals

Mythili Aruchamy and Srinivasan Karuppannan Crystal Research and Technology 2000246 (1 of 12) 2021

71. <u>Formation of a New Cocrystal Methyl-4-hydroxybenzoate: Urea and Its</u> Structural and

Thermal properties

Manikandan Vajaravel and Srinivasan Karuppannan Crystal Research and Technology 2000223 (1-12) 2021

70. Polymorphic control of α and β dl-methionine through swift cooling crystallization process

Manivel Suresh and Karuppannan Srinivasan Crystal Research and Technology 56 (2021) 2000208

69. <u>Hirshfeld Surface Analysis of Stable and Metastable Polymorphs of Vanillin</u>

Supriya Sundareswaran and Srinivasan Karuppannan Crystal Research and Technology, 2000083 (1-8), 2020

68. <u>Supersaturation Dependent Separation of Vanillin Polymorphs from</u> Aqueous Solution in the

Presence of Ni-Foam as Template

Supriya Sundareswaran and Srinivasan Karuppannan Crystal Research and Technology, 2000020 (1-9), 2020

67. <u>Single Crystal Growth of N-Benzyl-2-methyl-4-nitroaniline by Seeded</u>
Czochralski Pulling

Technique for NLO and THz Applications

Kalaivanan Raju, Mythili Aruchamy, and Srinivasan Karuppannan Crystal Research and Technology, 1900234 (1-9), 2020

2019-1994

66. <u>Crystal Growth of the Acentric Organic Nonlinear Optical Material Methyl-p-hydroxybenzoate:</u>

Morphological Variations in Crystals Grown by Physical Vapor Transport Wenbo Hou, Radoljub I. Ristic, Karuppannan Srinivasan, Ranko M. Vrcelj, Robert B. Hammond, David B. Sheen and John N. Sherwood

Crystal Growth and Design (American Chemical Society) 19, 10, 5505-5515, 2019

65. <u>Effective Control of Liquid–Liquid Phase Separation and Nucleation of Vanillin Single Crystals</u>

through a Vapor Diffusion Crystallization Process in Selected Solvent Environments

S. Supriya, S. Sushmitha, and K. Srinivasan Crystal Growth and Design (American Chemical Society) 19, 11, 6315-6323, 2019

- 64. Enhanced ferroelectric properties and crystal structure of TGS0.74P0.26 single crystals
- P. Sampathkumar and K. Srinivasan Journal of Materials Science: Materials in Electronics 30, 16494–16501, 2019
- 63. Studies on the concentration dependence of specific rotation of α -lactose mono hydrate (α -LM)

aqueous solutions and growth of $(\alpha$ -LM) single crystals

K. Vinodhini and K. Srinivasan

IOP Conference Series: Materials Science and Engineering, 310, 012006, 2018

62. <u>Effective Separation of N-benzyl-2-methyl-4-nitroaniline (BNA)</u>
Polymorphs

through Antisolvent Crystallization Method

R. Kalaivanan and K. Srinivasan Crystal Research and Technology, 1800052 (1-6), 2018

61. The effect of power, pulse rate and treatment time of sonication on the nucleation and growth

of α - Lactose monohydrate (α -LM) single crystals from aqueous solution

K. Vinodhini and K. Srinivasan

Crystal Research and Technology 1700227 (1-11), 2018

60. <u>Nucleation control and separation of stable and metastable polymorphs</u> of L-Histidine through

novel swift cooling crystallization process

S. Supriya, S. Sivan and K. Srinivasan
Crystal Research and Technology 1700239 (1-9), 2018

59. The role of ultrasound in controlling the liquid-liquid phase separation and nucleation

of vanillin polymorphs I and II

P. Parimaladevi, S. Supriya and K. Srinivasan Journal of Crystal Growth 484, 21-30, 2018

58. <u>Linear and non-linear optical characterization of methyl-p-</u>hydoxybenzoate (p-MHB) single

crystal grown by TSSG method

K. Sritharan, V. Manikandan and K. Srinivasan Optics and Laser Technology 91, 51-54, 2017

57. <u>Pyroelectric properties of I-alanine and Pt(IV) doped triglycine sulpho</u> phosphate single

crystals for pyroelectric infrared detector applications

P. Sampathkumar and K. Srinivasan Ferroelectrics 519, 77-81, 2017

56. Synthesis, Growth and characterization of organic nonlinear optical material:

N-benzyl-2-methyl 4-nitroaniline (BNA)

R. Kalaivanan and K. Srinivasan
Optics and Laser Technology 90, 27-32, 2017

55. A newer approach of growing methyl p-hydroxybenzoate (p-MHB) single crystals from melt

without a polymorphic change in their form

K. Sritharan, V. Manikandan, and K. Srinivasan Crystal Engineering Communication 18, 8237-8245, 2016

54. Nucleation control and growth of metastable α -L-glutamic acid single crystals in the

presence of L-phenylalanine

P. Dhanasekaran and K. Srinivasan Procedia Engineering 141, 70-77, 2016

- 53. Pyroelectric properties and electrocaloric effect in TGS1–xPx single crystals
 - P. Sampathkumar and K. Srinivasan Materials Research Express 3, 106301, 2016
- 52. Understanding the crystallization behaviour of α -lactose monohydrate through molecular

interaction in selected solvents and solvent mixtures under different growth conditions

- P. Parimaladevi and K. Srinivasan Crystal Engineering Communication 18, 2312-2318, 2016
- 51. <u>Crystallization of Metastable Orthorhombic Paracetamol by Specially</u>
 Designed Seeding

Technique

- C. Sudha and K. Srinivasan International Journal of ChemTech Research 6, 1630-1632, 2014
- 50. <u>In-Situ Study of the Influence of Paracetamol on the Nucleation</u> behaviour and Accelerated

Crystal growth ratesof Metastable α Glycine

- K. Renuka Devi and K. Srinivasan International Journal of ChemTech Research 6, 1627-1629, 2014
- 49. <u>Anti-Solvent Crystallization of Lactose Single Crystals from Alcohol-</u> Aqueous Solution

at different Concentrations

- P. Parimaladevi and K. Srinivasan International Journal of ChemTech Research 6, 1595-1597, 2014
- 48. Achievement of favourable uniform crystal size distribution of alphalactose monohydrate

(α-LM) through swift cooling process

- P. Parimaladevi and K. Srinivasan Journal of Food Engineering 151, 1-6, 2015
- 47. Attainment of unstable β nucleation of glycine in presence of L-Tyrosine and its

analytical interpretation-a combined approach

K. Renuka Devi and K. Srinivasan Journal of Crystal Growth 418, 130-137, 2015

46. <u>Impact of malonic acid on the segregation of glycine</u> polymorphs-Analytical assisted

molecular approach

K. Renuka Devi and K. Srinivasan Crystal Research and Technology 50, 171–178, 2015

- 45. <u>Influence of magnetic field on the nucleation rate control of mono</u> paracetamol
 - C. Sudha, R. Sivanarendiran and K. Srinivasan* Crystal Research and Technology 50, 230–235, 2015
- 44. Synthesis, bulk growth, polarizability and nonlinear optical properties of γ -glycine

single crystals

K. Renuka Devi and K. Srinivasan Crystal Research and Technology 50, 389–394, 2015

43. The role of a DMSO: water mixture on the crystallization of α -Lactose monohydrate

 $(\alpha$ -LM) single crystals with desired morphology

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Awarded on: March 31, 2021

Patent Filed-2

Title: Pyroelectric Infrared Detector and Method thereof.

Name of the Contributors: P. Sampathkumar, K. Srinivasan and K. Kadirvelu

Indian Patent Application No. 201911008519

Filed on: March 05, 2019

Title: Magnetic Stirring Apparatus

Name of the Contributors: P. Sampathkumar, K. Srinivasan and K. Kadirvelu

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