



Bharathiar University

State University | "A⁺⁺" Grade by NAAC | 46th Rank in MoE-NIRF
Maruthamalai Road, Coimbatore, Tamil Nadu - 641 046.

Dr M ILANCHELIAN Professor Department of Chemistry Bharathiar University Coimbatore, 641046 Tamil Nadu E-mail: chelian73@buc.edu.in Phone: 9486382006 Office Number: 0422-2428311	
Research Area <ul style="list-style-type: none">• Biophysical and photo physical Chemistry• Photo electro chemistry• Synthesis of metal, carbon and semiconductor nano-composite materials	Courses Teaching <ul style="list-style-type: none">• Physical Chemistry-I• Physical Chemistry-II• Physical Chemistry-III• Physical Chemistry Laboratory
Research Experience: 25	Teaching Experience: 20
Research Credentials (as on September 2025 – Source: Google scholar) H-index: 30 Citations: 2441 i10-index: 63	
Patents : Filed: 1	
Publications International Journals: 88	
Career Other Institutes 1. Designation : Post Doctoral Fellow Institution Name : Institute of Chemistry, Jerusalem University, Israel Period : June 2003 - October 2003 At Bharathiar University 1. Designation : Associate Professor Period : April 2017 - Till Date 2. Designation : Assistant Professor Period : April 2005 - April 2017	
Education Ph. D. Subject : Chemistry Institution : Madurai Kamaraj University, Madurai Affiliated University : Madurai Kamaraj University, Madurai Year of Award : October 2004 M. Sc. Subject : Chemistry Institution : Madurai Kamaraj University, Madurai Affiliated University : Madurai Kamaraj University, Madurai Year of Award : April 1995 B. Sc. Subject : Chemistry Institution : Madurai Kamaraj University, Madurai Affiliated University : Madurai Kamaraj University, Madurai Year of Award : April 1993	



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Maruthamalai Road, Coimbatore, Tamil Nadu - 641 046.

Dr M ILANCHELIAN , Professor , Department of Chemistry

Projects

National Level

Ongoing - completed - 5

Research Guidance

Completed

Ph.D. - 9 M.Phil. - 17 PG - 63

On Going

Ph.D. - 6

Institutional Responsibilities

Professor and Head

Period :Mar 2020 to Till date

Nature of Responsibility :Professor and Head, Department of Chemistry, Bharathiar University, Coimbatore – 46.

Member of the Senate

Period :Apr 2020 to Till date

Nature of Responsibility :

Coordinator, FIST program

Period :Mar 2021 to Till date

Nature of Responsibility :

Warden, Kambar Hostel

Period :Mar 2020 - Sep 2024

Nature of Responsibility :

Coordinating Warden

Period :Mar 2020 - Sep 2023

Nature of Responsibility :

Nodal Officer of the Grievance Cell of the SC/ST employees

Period :Jan 2021 to Till date

Nature of Responsibility :

Convener, Cast based discrimination committee

Period :Oct 2020 to Till date

Nature of Responsibility :

Common Eligibility Test (CET), Coordinator

Period :Mar 2020 - Jun 2022

Nature of Responsibility :

Publications

International Journals - 88

88. Highly Selective Colorimetric Sensor for Cyanide Ions in Water Samples Using Polydopamine-Stabilized

Silver Nanoparticles

1-10 (July 2025)

Karuppasamy Nandhini, Velmurugan Indhuja, Mani Arivazhagan, Krishnamoorthy Shanmugaraj, M. P. Pachamuthu, Ramalinga Viswanathan Mangalaraja & Malaichamy Ilanchelian

87. Investigating the Function of Ribonucleic Acid in Suppressing the Spectral and In Vitro Cytotoxic Effects of Methylene Blue/Thionine Dyes

40 & e70221 (June 2025)

Dhanya Rajan, Ramar Rajamanikandan, Malaichamy Ilanchelian

86. Exploring the photophysical interaction of xanthene dyes with gold nanorods by optical spectroscopic techniques and in-vitro cytotoxicity studies of dye-nano conjugates

220 & 111746 (May 2025)

Dhanya Rajan, Ramar Rajamanikandan, Malaichamy Ilanchelian



85. Bright yellow fluorescent nitrogen and boron doped-CNPs based turn "off-on" probe for highly sensitive and selective detection of glyphosate and hypochlorite

444 & 114869 (May 2025)

Karuppasamy Nandhini, Malaichamy Ilanchelian

84. Nitrogen-Doped Carbon Dots with Aggregation-Induced Emission Enhancement for Selective Biosensing of Spermine

1-11 (May 2025)

Karuppasamy Nandhini & Malaichamy Ilanchelian

83. Development of magnesium-ion-conducting solid electrolytes from plant gum for magnesium-ion batteries

31 & 7035-7055 (May 2025)

Vengadesh Krishna M, S Selvasekarapandian & Malaichamy Ilanchelian

82. Highly selective uricase-based quantification of uric acid using hydrogen peroxide sensitive poly-(vinylpyrrolidone) templated copper nanoclusters as a fluorescence probe

11 & 268 (April 2025)

Ramar Rajamanikandan, Malaichamy Ilanchelian, Heongkyu Ju

81. Orange-Red-Emitting Carbon Dots for Bilirubin Detection and Its Antibacterial Activity Against Escherichia coli and Staphylococcus aureus

7 & 2936-2950 (March 2025)

Karuppasamy Nandhini, Malaichamy Ilanchelian, S. Selvasekarapandian & Malaichamy Ilanchelian

80. Sodium-ion-conducting natural resin-based flexible electrolyte membranes for energy applications

31 & 3391-3406 (February 2025)

Vengadesh Krishna M, S. Selvasekarapandian & Malaichamy Ilanchelian

79. 3-Ethoxysalicylaldehyde-based symmetrical azine-linked luminogen exhibiting ESIPT and bright orange colour AIE behaviour with live cell bioimaging application

39 & e4892 (September 2024)

Moorthy Mathivanan, Krishnamoorthy Shanmugaraj, Malaichamy Ilanchelian, Jebiti Haribabu, Paulina I. Hidalgo, Néstor Novoa

78. Versatile aggregation induced emissive molecular probes incorporating different donor/acceptor groups for tunable multiple color fluorescence

228 & 112196 (September 2024)

Moorthy Mathivanan a , David Villaman a , Krishnamoorthy Shanmugaraj b , Malaichamy Ilanchelian c, Thangaraj Thirupathiraja d , Senthilkumar Lakshmi pathi d, Néstor Novoa a

77. Orange-Red-Emitting Carbon Dots for Bilirubin Detection and Its Antibacterial Activity Against Escherichia coli and Staphylococcus aureus

7 & 2936-2950 (April 2024)

Karuppasamy Nandhini, Malaichamy Ilanchelian

76. Visual and optical colorimetric detection of L-cysteine in biological samples using gold/silver alloy nanoparticles

35 & 501 (March 2024)

Thangarasu Sasikumar, Krishnamoorthy Shanmugaraj, Malaichamy Ilanchelian

75. Facile preparation of dihydroliipoic acid-stabilized red-emitting silver nanoclusters as a sensitive fluorometric probe for sulfide ions detection

302 & 123034 (December 2023)

Thangarasu Sasikumar, Malaichamy Ilanchelian

74. Exploring the photophysical interaction of xanthene dyes with gold nanorods by optical spectroscopic techniques and in-vitro cytotoxicity studies of dye-nano conjugates

220 & 111746 (December 2023)

Dhanya Rajan a , Ramar Rajamanikandan b , Malaichamy Ilanchelian



73. Smartphone-enabled colorimetric visual quantification of highly hazardous trivalent chromium ions in environmental waters and catalytic reduction of p-nitroaniline by thiol-functionalized gold nanoparticles

340 & 139838 (November 2023)

Ramar Rajamanikandan a , Malaichamy Ilanchelian b , Heongkyu Ju a

72. Bright yellow fluorescent nitrogen and boron doped-CNPs based turn "off-on" probe for highly sensitive and selective detection of glyphosate and hypochlorite

444 & 114869 (October 2023)

Karuppasamy Nandhini, Malaichamy Ilanchelian

71. Deciphering the binding site and mechanism of new methylene blue with serum albumins: A multispectroscopic and computational investigation

300 & 122900 (September 2023)

Perumal Manivel, Parthiban Marimuthu, Malaichamy Ilanchelia

70. Red-emitting copper nanoclusters for ultrasensitive and selective detection of creatinine and its application in portable smartphone-based paper strips and polymer thin film

53 & 105014 (August 2023)

Thangarasu Sasikumar, Krishnamoorthy Shanmugaraj, Karuppasamy Nandhini, Jun Tae Kim, Malaichamy Ilanchelian

69. Polymer membrane based on ABC type triblock co-polymer for safer lithium-ion solid-state batteries

29 & 4055-4066 (July 2023)

Vengadesh Krishna M, S. Selvasekarapandian & Malaichamy Ilanchelian

68. Design and development of novel fluorescent oxo-fluoro quinoline (E)-chalcone derivatives via Claisen-Schmidt reaction using Al-SrTiO₃ as a catalyst and its BSA protein binding studies

53 & 1104-1125 (July 2023)

Arul Murugesan, Prabu Samikannu, Malaichamy Ilanchelian

67. Investigating the biophysical interaction of serum albumins-gold nanorods using hybrid spectroscopic and computational approaches with the intent of enhancing cytotoxicity efficiency of targeted drug delivery

377 & 121541 (May 2023)

Dhanya Rajan, Ramar Rajamanikandan, Malaichamy Ilanchelian

66. Highly selective uricase-based quantification of uric acid using hydrogen peroxide sensitive poly-(vinylpyrrolidone) templated copper nanoclusters as a fluorescence probe

11 & 268 (May 2023)

Ramar Rajamanikandan, Malaichamy Ilanchelian, Heongkyu Ju

65. Highly Selective Uricase-Based Quantification of Uric Acid Using Hydrogen Peroxide Sensitive Poly-(vinylpyrrolidone) Templated Copper Nanoclusters as a Fluorescence Probe

11 & 268 (May 2023)

Ramar Rajamanikandan, Malaichamy Ilanchelian and Heongkyu Ju

64. α -cyclodextrin functionalized gold nanoparticles as an effective nanocatalyst for reducing toxic nitroaromatics

135 & 113294 (January 2023)

Ramar Rajamanikandan, Malaichamy Ilanchelian, Heongkyu Ju

63. Cysteamine-decorated gold nanoparticles for plasmon-based colorimetric on-site sensors for detecting cyanide ions using the smart-phone color ratio and for catalytic reduction of 4-nitrophenol

316 & 137836 (January 2023)

Ramar Rajamanikandan, Krishnamoorthy Shanmugaraj, Malaichamy Ilanchelian, Heongkyu Ju

62. Fluorescent nanoclusters used as a probe for sensing of toxic chemicals and biomolecules

12-1 to 12-22 (December 2022)

Krishnamoorthy Shanmugaraj, RV Mangalaraja, Radhamaohar Aepuru, Cristian H Campos, Malaichamy Ilanchelian, Mohamad Hafiz Bin Mamat



61. Morphological and biophysical insights into the gold nanorods binding interaction of haemoglobin/myoglobin by hybrid spectroscopic approaches with bacterial cytotoxicity evaluation

353 & 118777 (May 2022)

Dhanya Rajan 1 , Ramar Rajamanikandan 1 , Malaichamy Ilanchelian

60. Gold nanoparticle-decorated earth-abundant clay nanotubes as catalyst for the degradation of phenothiazine dyes and reduction of 4-(4-nitrophenyl) morpholine

30 & 124447-124458 (March 2022)

Krishnamoorthy Shanmugaraj, Cristian H Campos, Ramalinga Viswanathan Mangalaraja, Karuppasamy Nandhini, Radhamanohar Aepuru, Cecilia C Torres, Dinesh Pratap Singh, Deepak Kumar, Malaichamy Ilanchelian, Ajit Sharma, Dai-Viet N

59. Simple smartphone merged rapid colorimetric platform for the environmental monitoring of toxic sulfide ions by cysteine functionalized silver nanoparticles

174 & 107071 (March 2022)

Ramar Rajamanikandan , Malaichamy Ilanchelian

58. Synthesis, spectroscopic, DFT, HSA binding and docking studies of new 1, 5-bis (4-chlorophenyl)-3-(2-(4-methylpiperazin-1-yl) quinolin-3-yl) pentane-1, 5-dione

1223 & 129260 (January 2021)

Arul Murugesan, Thishana Singh, Ramar Rajamanikandan, Madhan Vinu, Malaichamy Ilanchelian, Chia-Her Lin, Robert Moonsamy Gengan

57. Smart phone assisted quinoline-hemicyanine based fluorescent probe for the selective detection of glutathione and the application in living cells

243 & 118809 (December 2020)

Kailasam Saravana Mani, Ramar Rajamanikandan, Malaichamy Ilanchelian, Narenkumar Muralidharan, Mathivanan Jothi, Subramaniam Parameswaran Rajendran

56. Exploring the binding mechanism between methylene blue and ovalbumin using spectroscopic analyses and computational simulations

38 & 1838 (December 2020)

Perumal Manivel, Marimuthu Parthiban, Malaichamy Ilanchelian

55. Glutathione functionalized copper nanoclusters as a fluorescence platform for specific biosensing of cysteine and application in cellular imaging

158 & 105253 (November 2020)

Ramar Rajamanikandan a , Basheer Azaad b , Senthilkumar Lakshmiopathi b, Malaichamy Ilanchelian a

54. A simple assay for direct visual and colorimetric sensing application of cysteamine using Au@Ag core-shell nanoparticles

109 & 110237 (November 2020)

Thangarasu Sasikumar , Malaichamy Ilanchelian

53. Gold nanorods-trypsin biocorona: a novel nano composite for in vitro cytotoxic activity towards MCF-7 and A-549 cancer cells

44 & 20574-20583 (November 2020)

Kandoth Kandy Jesna, Malaichamy Ilanchelian

52. Water-soluble luminescent copper nanoclusters as a fluorescent quenching probe for the detection of rutin and quercetin based on the inner filter effect

36 & 326-335 (September 2020)

Thangarasu Sasikumar, Malaichamy Ilanchelian

51. Spectroscopic and thermodynamic studies on binding behaviour of an ionic liquid, 2,2',3,3'-Epoxypropyl-N-methyl-2-oxopyrrolidinium acetate, with bovine serum albumin (BSA)

601 & 124954 (September 2020)

Vasanthakumar Arumugam a , Ramar Rajamanikandan c , Malaichamy Ilanchelian c, Huanjun Xu a , Kandasamy G. Moodley b , Yanan Gao a



50. Colorimetric determination of cysteamine based on the aggregation of polyvinylpyrrolidone-stabilized silver nanoparticles

236 & 118281 (August 2020)

Krishnamoorthy Shanmugaraj, Thangarasu Sasikumar, Cristian H Campos, Malaichamy Ilanchelian, Ramalinga Viswanathan Mangalaraja, Cecilia C Torres

49. Smart phone assisted, rapid, simplistic, straightforward and sensitive biosensing of cysteine over other essential amino acids by β -cyclodextrin functionalized gold nanoparticles as a colorimetric probe

44 & 12169-12177 (June 2020)

Ramar Rajamanikandan, Asokan Dhivya Lakshmi, Malaichamy Ilanchelian

48. Colorimetric and visual detection of cyanide ions based on the morphological transformation of gold nanobipyramids into gold nanoparticles

44 & 4713-4718 (February 2020)

Thangarasu Sasikumar, Malaichamy Ilanchelian

47. Human serum albumin interaction, in silico and anticancer evaluation of Pine-Gold nanoparticles

89 & 98-109 (February 2020)

K Anand, R Rajamanikandan, A Selva Sharma, M Ilanchelian, Faez Iqbal Khan, C Tiloke, Naresh Kumar Katari, P Boomi, C Balakumar, M Saravanan, S Palanisamy, M Ramesh, Dakun Lai, AA Chuturgoon

46. Insight into the binding and conformational changes of hemoglobin/lysozyme with bimetallic alloy nanoparticles using various spectroscopic approaches

300 & 111747 (February 2020)

Krishnamoorthy Shanmugaraj, Arumugam Selva Sharma, Thangarasu Sasikumar, Ramalinga Viswanathan Mangalaraja, Malaichamy Ilanchelian

45. New insights into the binding interaction of food protein ovalbumin with malachite green dye by hybrid spectroscopic and molecular docking analysis

37 & 4292-4300 (November 2019)

Ramar Rajamanikandan, Arumugam Selva Sharma, Malaichamy Ilanchelian

44. Synthesis of novel 1, 10-phenanthroline derivatives and it used as probes for sensitive detection of Zn²⁺ and Cd²⁺ metal ions—Spectroscopic and theoretical approach

221 & 117196 (October 2019)

Rajendran Satheeshkumar, Ramar Rajamanikandan, Malaichamy Ilanchelian, Koray Sayin, Karnam Jayarampillai Rajendra Prasad

43. Red emitting human serum albumin templated copper nanoclusters as effective candidates for highly specific biosensing of bilirubin

98 & 1064-1072 (May 2019)

Ramar Rajamanikandan, Malaichamy Ilanchelian

42. Coumarin based hydrazone as an ICT-based fluorescence chemosensor for the detection of Cu²⁺ ions and the application in HeLa cells

214 & 170-176 (May 2019)

Kailasam Saravana Mani, Ramar Rajamanikandan, Balasubramanian Murugesapandian, Ramasamy Shankar, Gandhi Sivaraman, Malaichamy Ilanchelian, Subramaniam Parameswaran Rajendran

41. Investigation of binding interactions between BSA and [EPMpyr][Sal] through spectroscopy studies, thermophysical and thermodynamic properties

210 & 299-307 (March 2019)

Vasanthakumar Arumugam, Ramar Rajamanikandan, Malaichamy Ilanchelian, Kandasamy G Moodley, Gan G Redhi

40. Elucidation of interactions of BSA with [EPMpyr]⁺[Cl]⁻ using spectroscopic techniques with reference to theoretical thermodynamic and molecular docking studies

273 & 634-644 (January 2019)

Vasanthakumar Arumugam, Ramar Rajamanikandan, Malaichamy Ilanchelian, Kandasamy G Moodley, Gan G Redhi



39. Photophysical insights and in vitro cytotoxicity of dyes-gold nanostars system towards MCF-7 and A-549 cancer cells

162 & 916-925 (January 2019)
Kandoth Kandy Jesna, Malaichamy Ilanchelian

38. Highly Sensitive Coumarin–Pyrazolone Probe for the Detection of Cr³⁺ and the Application in Living Cells

3 & 17212-17219 (December 2018)
Kailasam Saravana Mani, Ramar Rajamanikandan, Govindan Ravikumar, Baskaran Vijaya Pandiyan, Ponmalai Kolandaivel, Malaichamy Ilanchelian, Subramaniam Parameswaran Rajendran

37. Fluorescence Sensing Approach for High Specific Detection of 2,4,6-Trinitrophenol Using Bright Cyan Blue Color-Emissive Poly(vinylpyrrolidone)-Supported Copper Nanoclusters as a Fluorophore

3 & 18251-18257 (December 2018)
Ramar Rajamanikandan, Malaichamy Ilanchelian

36. β -Cyclodextrin protected gold nanoparticle based cotton swabs as an effective candidate for specific sensing of trace levels of cyanide

11 & 97-104 (November 2018)
Ramar Rajamanikandan, Malaichamy Ilanchelian

35. Protein-localized bright-red fluorescent gold nanoclusters as cyanide-selective colorimetric and fluorometric nanoprobess

3 & 14111-14118 (October 2018)
Ramar Rajamanikandan, Malaichamy Ilanchelian

34. Exploring the interaction of Azure dyes with t-RNA by hybrid spectroscopic and computational approaches and its applications toward human lung cancer cell line

113 & 1052-1061 (July 2018)
Dhanya Rajan, Malaichamy Ilanchelian

33. Protein-protected red emissive copper nanoclusters as a fluorometric probe for highly sensitive biosensing of creatinine

10 & 3666-3674 (June 2018)
Ramar Rajamanikandan, Malaichamy Ilanchelian

32. β -cyclodextrin functionalised silver nanoparticles as a dual colorimetric probe for ultrasensitive detection of Hg²⁺ and S²⁻ ions in environmental water samples

15 & 61-69 (June 2018)
Ramar Rajamanikandan, Malaichamy Ilanchelian

31. Histidine-Stabilized Copper Nanoclusters as a Fluorescent Probe for Selective and Sensitive Determination of Vitamin B12

2 & 168-174 (May 2018)
Krishnamoorthy Shanmugaraj, Thangarasu Sasikumar, Malaichamy Ilanchelian

30. Solvent assisted synthesis, structural characterization and biological evaluation of cobalt(II) and nickel(II) complexes of Schiff bases generated from benzyl carbazate and cyclic ketones

145 & 200-217 (May 2018)
Palanivelu Nithya, Ramar Rajamanikandan, Jim Simpson, Malaichamy Ilanchelian, Subbiah Govindarajan

29. A rapid and sensitive colorimetric sensor for detection of silver ions based on the non-aggregation of gold nanoparticles in the presence of ascorbic acid

29 & 655-662 (May 2018)
Arumugam Selva Sharma, Thangarasu SasiKumar, Malaichamy Ilanchelian

28. Naked eye and optical biosensing of cysteine over the other amino acids using β -cyclodextrin decorated silver nanoparticles as a nanoprobe

42 & 9193-9199 (April 2018)
Ramar Rajamanikandan, Malaichamy Ilanchelian



27. One-pot synthesis via 1, 3-dipolar cycloaddition reaction to piperaziny-quinoliny dispiro heterocyclic derivatives and spectrofluorometric and molecular docking studies on their binding with human serum albumin

1149 & 439-451 (December 2017)

Arul Murugesan, Robert Moonsamy Gengan, Ramar Rajamanikandan, Malaichamy Ilanchelian, Chia-Her Lin

26. Highly selective and sensitive biosensing of dopamine based on glutathione coated silver nanoclusters enhanced fluorescence

41 & 15244-15250 (November 2017)

Ramar Rajamanikandan, Malaichamy Ilanchelian

25. One-pot synthesis of Claisen–Schmidt reaction through (E)-chalcone derivatives: Spectral studies in human serum albumin protein binding and molecular docking investigation

47 & 1884-1904 (October 2017)

Arul Murugesan, Robert Moonsamy Gengan, Ramar Rajamanikandan, Malaichamy Ilanchelian, Chia-Her Lin

24. Probing the interaction of thionine with human serum albumin by multispectroscopic studies and its in vitro cytotoxic activity toward MCF-7 breast cancer cells

35 & 3012-3031 (October 2017)

Perumal Manivel, Manickam Paulpandi, Kadarkarai Murugan, Giovanni Benelli, Malaichamy Ilanchelian

23. Visual and optical detection of hypochlorite in water samples based on etching of gold/silver alloy nanoparticles

41 & 14130-14136 (September 2017)

Krishnamoorthy Shanmugaraj, Malaichamy Ilanchelian

22. Photophysical changes of thionine dye with folic acid capped gold nanoparticles by spectroscopic approach and its in vitro cytotoxicity towards A-549 lung cancer cells

242 & 1042-1051 (September 2017)

Kandoth Kandy Jesna, Malaichamy Ilanchelian

21. Simple and visual approach for highly selective biosensing of vitamin B1 based on glutathione coated silver nanoparticles as a colorimetric probe

244 & 380-386 (June 2017)

Ramar Rajamanikandan, Malaichamy Ilanchelian

20. Colorimetric detection of hypochlorite based on the morphological changes of silver nanoprisms to spherical nanoparticles

9 & 3151-3158 (April 2017)

Thangarasu Sasikumar, Malaichamy Ilanchelian

19. Elucidation of binding mechanism of photodynamic therapeutic agent toluidine blue O with chicken egg white lysozyme by spectroscopic and molecular dynamics studies

93 & 1043-1056 (March 2017)

Krishnamoorthy Shanmugaraj, Palanivel Umadevi, Lakshmiathi Senthilkumar, Malaichamy Ilanchelian

18. New cobalt (II) and nickel (II) complexes of benzyl carbazate Schiff bases: Syntheses, crystal structures, in vitro DNA and HSA binding studies

165 & 220-231 (December 2016)

Palanivelu Nithya, Sannasi Helena, Jim Simpson, Malaichamy Ilanchelian, Aathi Muthusankar, Subbiah Govindarajan

17. Selective and Sensitive Colorimetric Detection of Hg²⁺ at Wide pH Range Using Green Synthesized Silver Nanoparticles as Probe

28 & 1145-1162 (November 2016)

Perumal Manivel, Malaichamy Ilanchelian



16. Concentration dependent catalytic activity of glutathione coated silver nanoparticles for the reduction of 4-nitrophenol and organic dyes

28 & 1009-1023 (October 2016)

Ramar Rajamanikandan, Krishnamoorthy Shanmugaraj, Malaichamy Ilanchelian

15. A "turn-off" fluorescent sensor for the selective and sensitive detection of copper (ii) ions using lysozyme stabilized gold nanoclusters

6 & 54518-54524 (May 2016)

Krishnamoorthy Shanmugaraj, Malaichamy Ilanchelian

14. Colorimetric determination of sulfide using chitosan-capped silver nanoparticles

183 & 1721-1728 (May 2016)

Krishnamoorthy Shanmugaraj, Malaichamy Ilanchelian

13. Binding interaction, conformational change, and molecular docking study of N-(pyridin-2-ylmethylene) aniline derivatives and carbazole Ru (II) complexes with human serum albumins

107 & 124-135 (March 2016)

Saravanan Thangavel, Ramar Rajamanikandan, Holger B Friedrich, Malaichamy Ilanchelian, Bernard Omondi

12. Comprehensive multispectroscopic analysis on the interaction and corona formation of human serum albumin with gold/silver alloy nanoparticles

119 & 9461-9476 (July 2015)

Arumugam Selva Sharma, Malaichamy Ilanchelian

11. Unraveling the binding interaction of Toluidine blue O with bovine hemoglobin—a multi spectroscopic and molecular modeling approach

5 & 3930-3940 (January 2015)

Krishnamoorthy Shanmugaraj, Shanmugam Anandakumar, Malaichamy Ilanchelian

10. Probing the binding interaction of thionine with lysozyme: A spectroscopic and molecular docking investigation

112 & 210-219 (January 2015)

Krishnamoorthy Shanmugaraj, Shanmugam Anandakumar, Malaichamy Ilanchelian

9. Elucidation of photophysical changes and orientation of acridine orange dye on the surface of borate capped gold nanoparticles using multi-spectroscopic techniques

13 & 1741-1752 (December 2014)

Arumugam Selva Sharma, Malaichamy Ilanchelian

8. Exploring the interaction of the photodynamic therapeutic agent thionine with bovine serum albumin: multispectroscopic and molecular docking studies

30 & 729-739 (November 2014)

Perumal Manivel, Shanmugam Anandakumar, Malaichamy Ilanchelian

7. In vitro investigation of domain specific interactions of phenothiazine dye with serum proteins by spectroscopic and molecular docking approaches

4 & 36267-36281 (August 2014)

Arumugam Selva Sharma, Shanmugam Anandakumar, Malaichamy Ilanchelian

6. A combined spectroscopic and molecular docking study on site selective binding interaction of Toluidine blue O with Human and Bovine serum albumins

151 & 206-218 (July 2014)

Arumugam Selva Sharma, Shanmugam Anandakumar, Malaichamy Ilanchelian

5. Exploring the biophysical aspects and binding mechanism of thionine with bovine hemoglobin by optical spectroscopic and molecular docking methods

131 & 43-52 (February 2014)

Krishnamoorthy Shanmugaraj, Shanmugam Anandakumar, Malaichamy Ilanchelian



4. Spectral studies of toluidine blue o in the presence of sodium dodecyl sulfate

21 & 22 (December 2009)
J Jebaranya, M Ilanchelian, S Prabakar

3. Emission of thioflavin T and its control in the presence of DNA

162 & 129-137 (February 2004)
M Ilanchelian, R Ramaraj

2. Photoreduction of nitrite to ammonia by metal phthalocyanines-adsorbed membrane

83 & 628-631 (September 2002)
Malaichamy Ilanchelian, J Rajan Premkumar, Ramasamy Ramaraj

1. Spectral studies on the cyclodextrin inclusion complexes of toluidine blue o and meldola's blue in aqueous solution.

36 & 9 (January 2000)
M. Ilanchelian, C. Retna Raj and R. Ramaraj.

Patents

Filed - 1

1. Biomaterial electrolyte membrane comprising Cassia fistula flower (Sarakondrai) for all-solid-state electrochemical devices 02-2025 202511009120 Vengadesh Krishna M & Malaichamy Ilanchelian

Projects

Completed - 5

1. Dye molecules functionalized metal nanoclusters for the colorimetric and FRET detection of biomolecules DST 989000 (March 2010 - March 2013)
2. Nanomaterial functionalized with Cyclodextrin inclusion complexes of organic dye molecules-based detection systems for heavy metals Others 1394800 (July 2013 - July 2016)
3. Functional nano- particle architecture for amplified electro-chemical detection of biologically important molecules DST 1200000 (October 2015 - October 2017)
4. Synthesis and application of anticancer compounds RUSA 2.0 - BCTRC 4743000 (December 2020 - January 2023)
5. Metal Nanoclusters based fluorescence probes for point of care detection of biomarkers for traumatic brain injury DST 3987016 (March 2022 - March 2025)