

# CENTRAL UNIVERSITY OF JAMMU

<b>First Name</b>	Dr. V. Sridharan	<b>Middle Name</b>		<b>Last Name</b>		<b>Photograph</b>
<b>Title &amp; Designation</b>		Professor and Head				
<b>Address</b>		Department of Chemistry and Chemical Sciences Central University of Jammu Rahya-Suchani (Bagla), District-Samba Jammu-181143, J&K, India				
<b>Phone Number</b>						
<b>Office</b>						
<b>Residence</b>						
<b>Mobile</b>		+91 8489670742, 9149849253				
<b>Email</b>		vesridharan@gmail.com; sridharan.che@cuammu.ac.in				
<b>Web-Page</b>						
<b>Educational Qualifications:</b>						
<b>Degree</b>	<b>Institution</b>			<b>Year</b>		
Ph.D., Organic Chemistry	Madurai Kamaraj University			2005		
M.Sc., Chemistry	Madurai Kamaraj University			1999 (Gold Medalist)		
B.Sc., Chemistry	Madurai Kamaraj University			1997		
CSIR-NET-JRF						
<b>Career Profile:</b>						
<p>October 2020 - Present:  <b>Professor and Head</b>, Department of Chemistry and Chemical Sciences, Central University of Jammu, Jammu, <b>India</b></p> <p>October 2017 - October 2020:  <b>Associate Professor and Head</b>, Department of Chemistry and Chemical Sciences, Central University of Jammu, Jammu, <b>India</b></p> <p>November 2012 - September 2017:  <b>Associate Professor</b> - Department of Chemistry, School of Chemical and Biotechnology, SASTRA University, Thanjavur, <b>India</b></p> <p>October 2010 - October 2012 (2 years):  <b>JSPS Postdoctoral Research Fellow</b> - The Institute of Scientific and Industrial Research (ISIR), Osaka University, Osaka, <b>Japan</b>  <i>Topic: Development of novel Pd-catalysts for asymmetric synthesis</i></p> <p>February 2009 - October 2010 (1 year 9 months):  <b>Postdoctoral Research Fellow/Teaching Assistant</b> - Department of Organic and Pharmaceutical chemistry, School of Pharmacy, Complutense University, Madrid, <b>Spain</b>.  <i>Topic: Development of novel multicomponent reactions for the synthesis of bioactive compounds</i></p> <p>February 2008 - January 2009 (1 year):  <b>Postdoctoral Research Fellow</b> - iSm2, Saint Jerome Campus, University of Paul Cezanne, Marseille, <b>France</b>.  <i>Topic: Domino reactions on optically active <math>\alpha</math>-alkylidenetetrahydrofuran bearing a sulfonimidoyl group: Application to the total synthesis of antibiotic natural product CJ-13,014</i></p>						

May 2005 - January 2008 (2 years 9 months):

**Postdoctoral Research Fellow** - Department of Organic and Pharmaceutical chemistry, School of Pharmacy, Complutense University, Madrid, **Spain**.

Topic: Development of novel multicomponent reactions for the synthesis of bioactive compounds

### Administrative Assignments:

October 2017 - Present:

**Head of the Department**, Department of Chemistry and Chemical Sciences, Central University of Jammu, Jammu, **India**

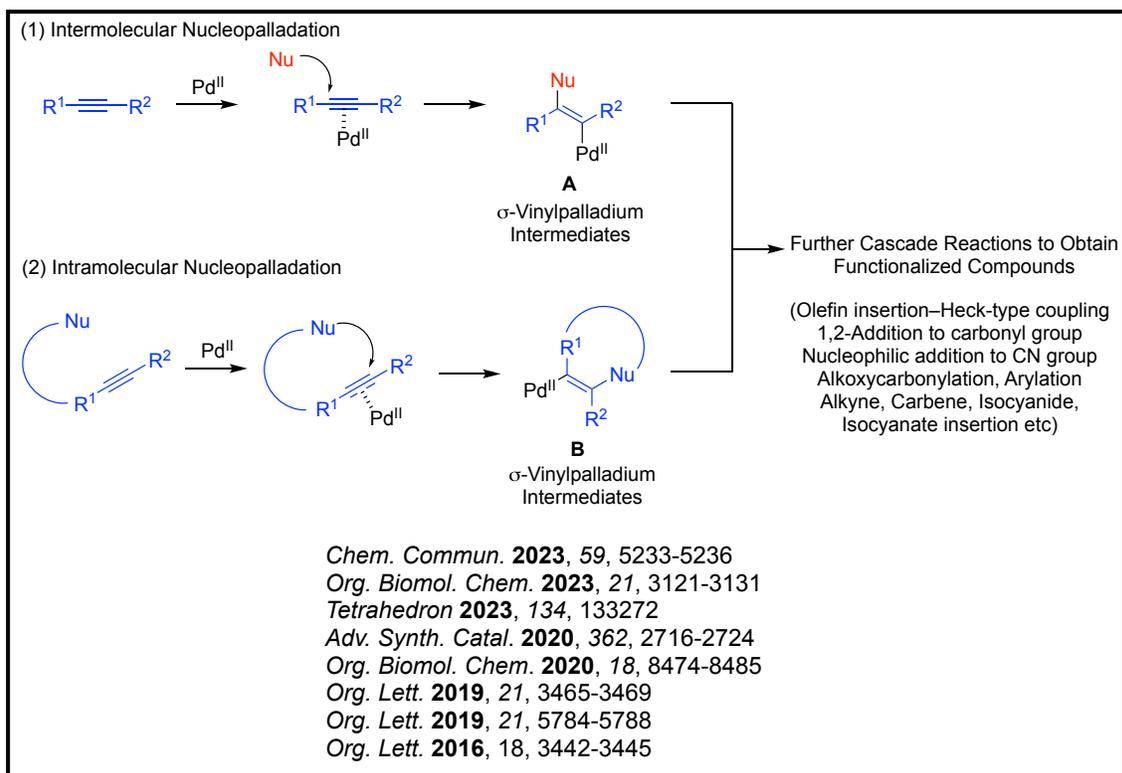
December 2019 - December 2021:

**Head of the Department (i/c)**, Department of Nano Science and Materials, Central University of Jammu, Jammu, **India**

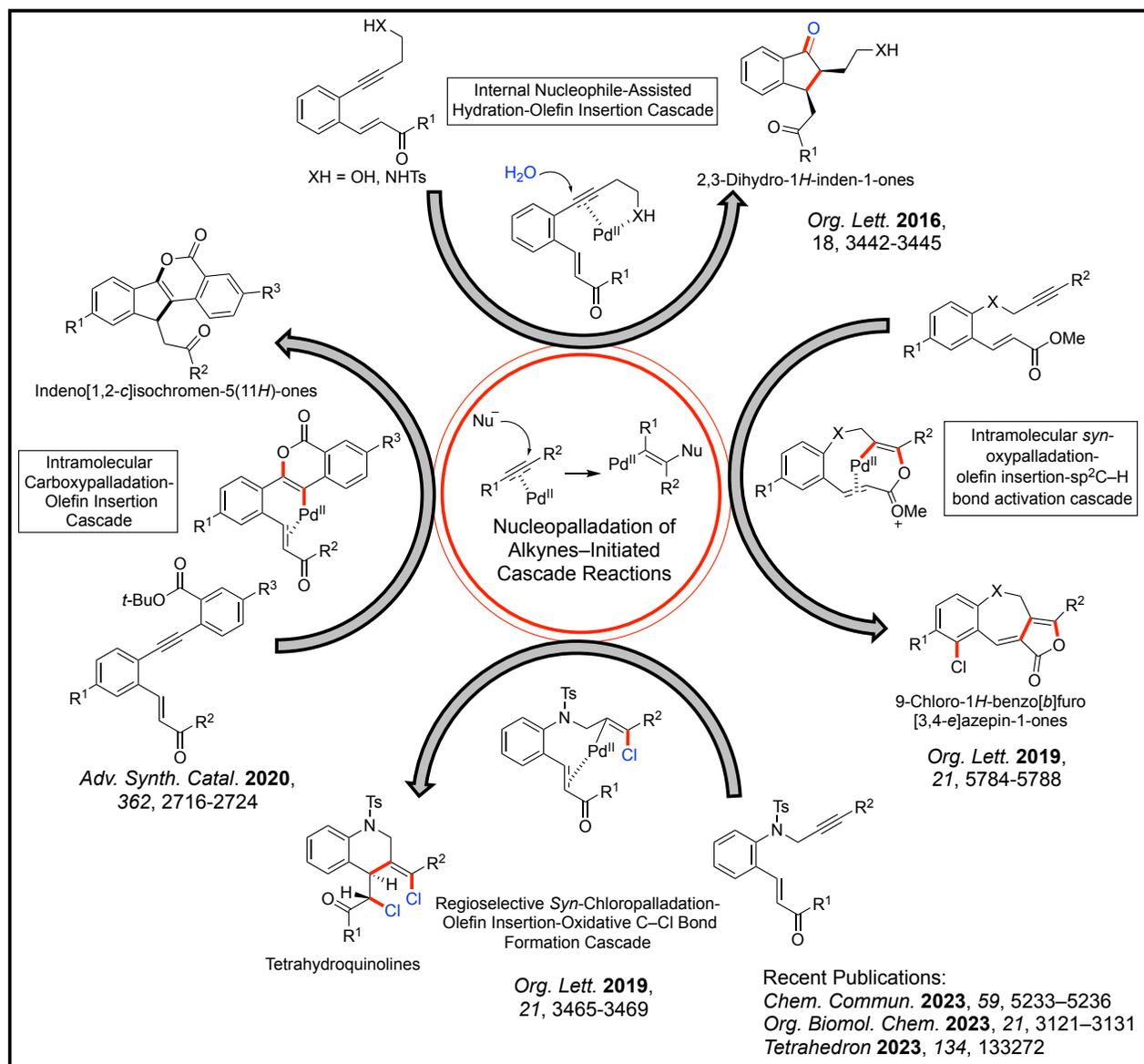
### Areas of Interest / Specialization:

#### Synthetic Organic Chemistry

#### 1. Nucleopalladation-Initiated Cascade Reactions for the Synthesis of Biologically Relevant Compounds

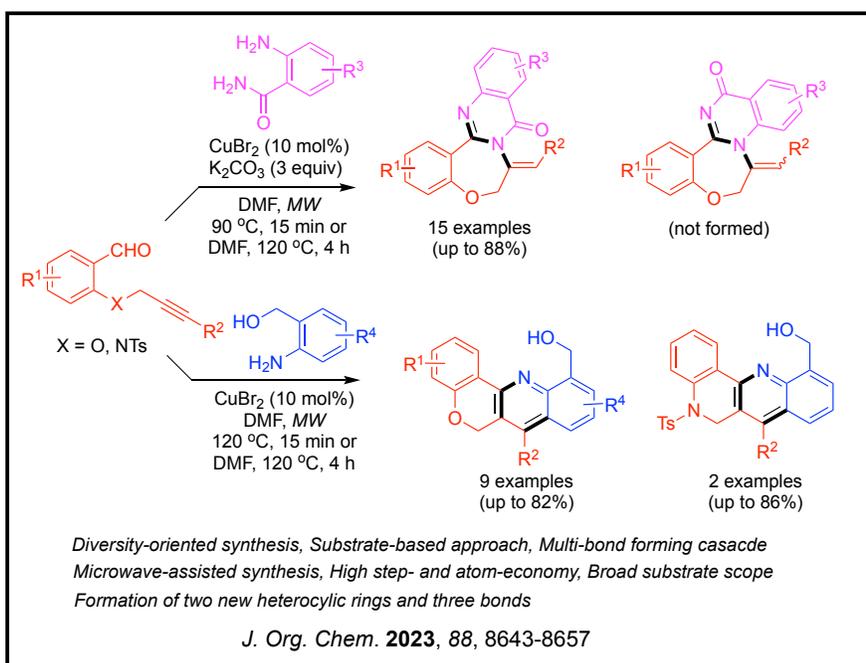
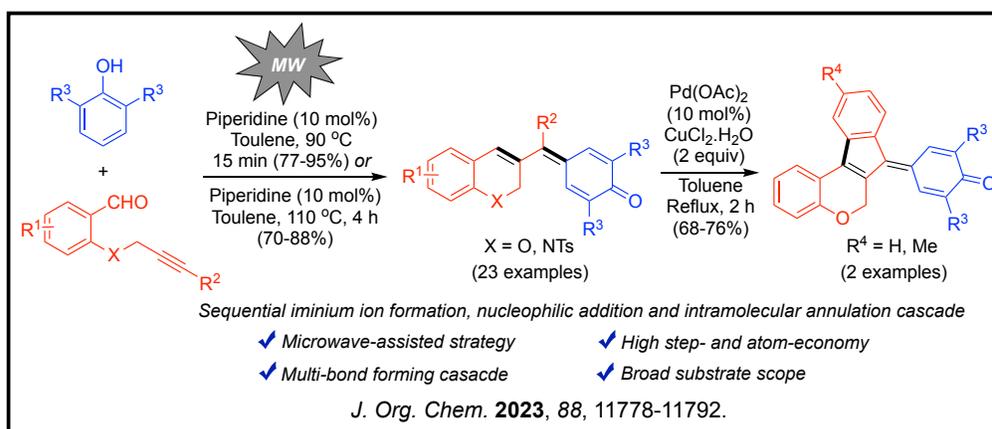
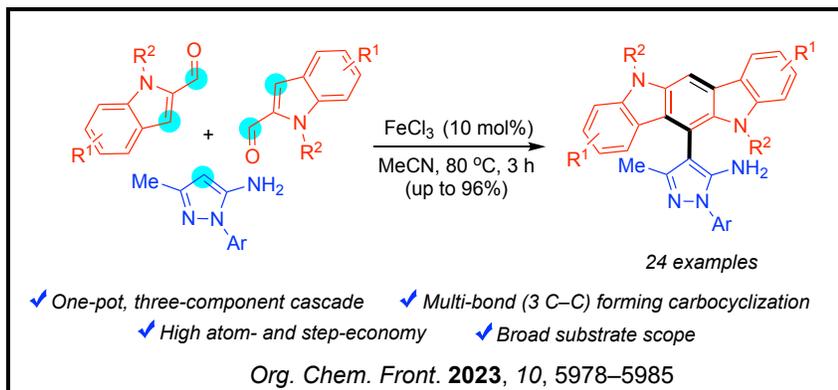


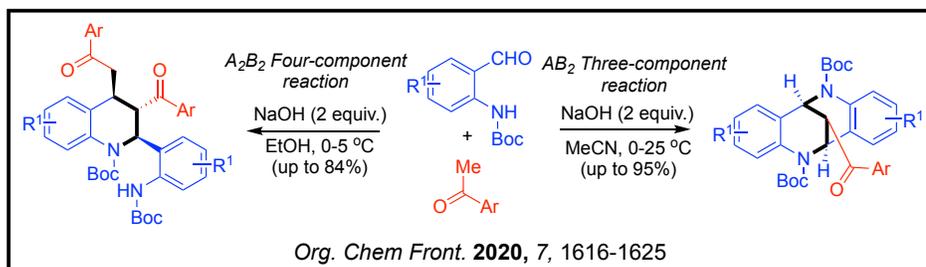
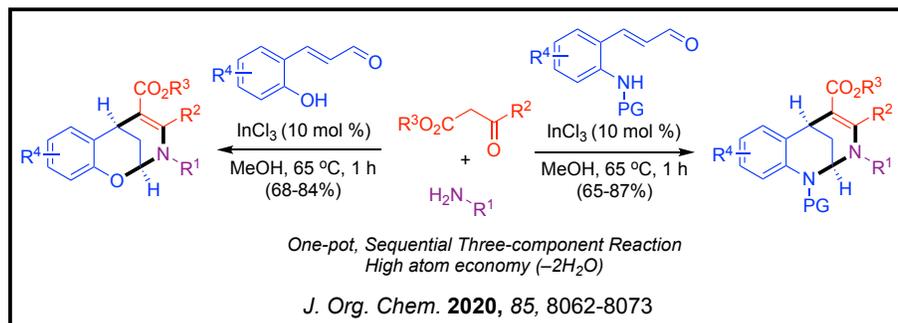
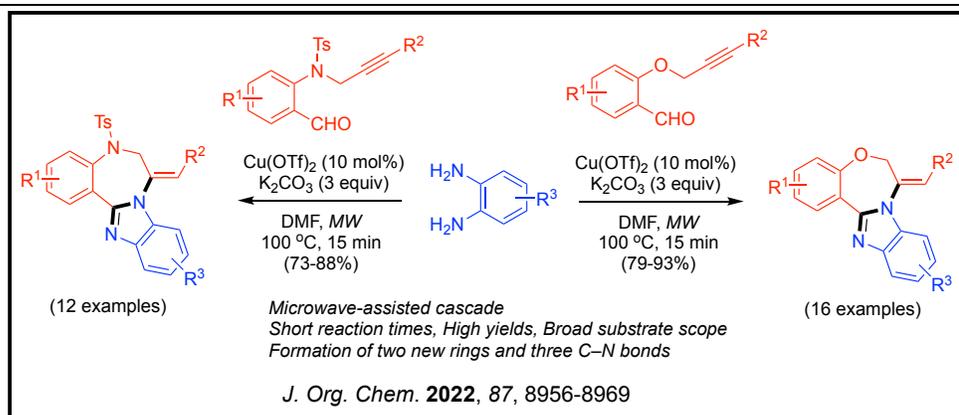
Selected examples

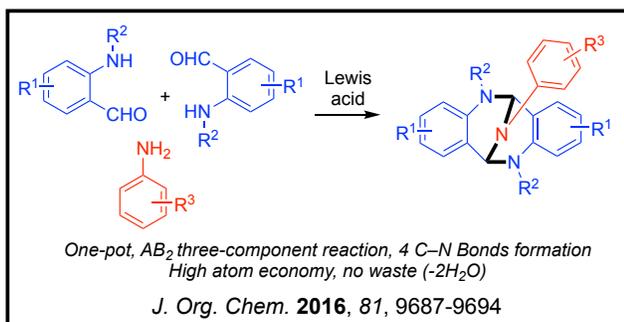
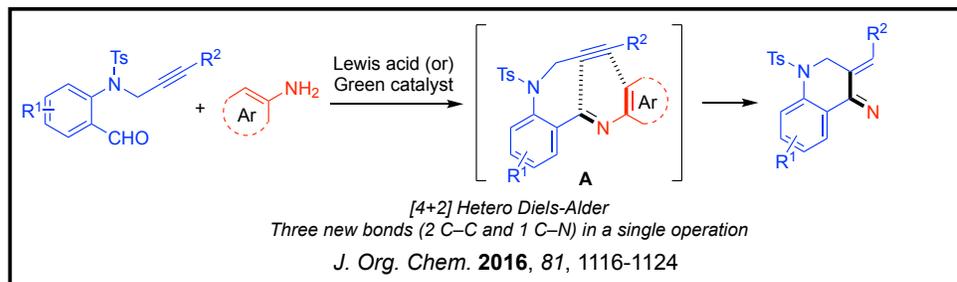
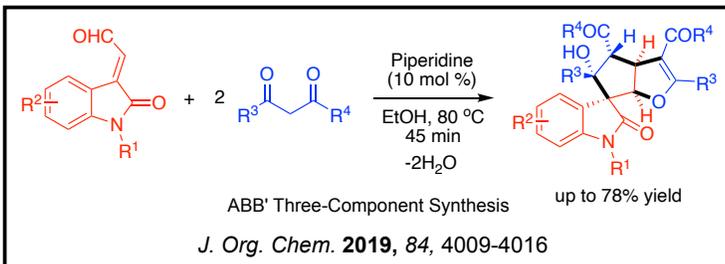


## 2. Development of Multi-Bond Forming Reactions (Multicomponent and Domino Reactions) for the Synthesis of Biologically Significant Compounds

Selected examples







### Subjects Taught:

Organic Reaction Mechanism, Stereochemistry, Conformational Analysis, Organic Spectroscopy

### Research Guidance:

Completed: 07

Pre-Submission Seminar Completed: 03

On-going: 01

### Publications Profile:

Total number of Publications: 117

Total citations: 4122 (Google Scholar, December 2023)

*h*-index: 32

*i*10-index: 71

## Selected Publications

70. FeCl<sub>3</sub>-catalyzed AB<sub>2</sub> three-component [3+3] annulation: an efficient access to functionalized indolo[3,2-*b*]carbazoles  
G. Jan, D. Rajput, A. Gupta, D. Tsering, M. Karuppasamy, K. K. Kapoor and **V. Sridharan\***  
*Org. Chem. Front.* **2023**, *10*, 5978–5985
69. Iodine-Catalyzed Three-Component Annulation: Access to Highly Fluorescent Trisubstituted Thiophenes  
D. B. Rajkumar, K. Gnanaoli, A. Puhazhendhi, T. Arunachalam, S. Nagarajan, **V. Sridharan**, S. Sivalingam and C. U. Maheswari  
*Chem. Commun.* **2023**, *59*, 10129–10132
68. Rapid Assembly of Functionalized 2H-Chromenes and 1,2-Dihydroquinolines via Microwave-Assisted Secondary Amine-Catalyzed Cascade Annulation of 2-*O/N*-Propargylarylaldehydes with 2,6-Dialkylphenols  
D. Rajput, G. Jan, M. Karuppasamy, N. Bhuvanesh, S. Nagarajan, C. Uma Maheswari, J. C. Menéndez and **V. Sridharan\***  
*J. Org. Chem.* **2023**, *88*, 11778–11792
67. Diversity-Oriented Synthesis of Benzo[*f*][1,4]oxazepine-, 2H-Chromene- and 1,2-Dihydroquinoline-Fused Polycyclic Nitrogen Heterocycles under Microwave-Assisted Conditions  
D. Rajput, D. Tsering, M. Karuppasamy, K. K. Kapoor, S. Nagarajan, C. U. Maheswari, N. Bhuvanesh and **V. Sridharan\***  
*J. Org. Chem.* **2023**, *88*, 8643–8657
66. Palladium-catalyzed intramolecular oxypalladation-initiated cascade: solvent-dependent chemodivergent approach to functionalized benzazepines and tetrahydroquinolines  
A. Gupta, T. Jandial, M. Karuppasamy, N. Bhuvanesh, S. Nagarajan, C. U. Maheswari and **V. Sridharan\***  
*Chem. Commun.* **2023**, *59*, 5233–5236.
65. Electronically Robust Self-assembled Supramolecular Gel as a Potential Material in Triboelectric Nanogenerator  
A. K. Rachamalla, S. Potu, V. P. Rebaka, T. Banoo, Y. Kumar, C. U. Maheswari, **V. Sridharan**, R. K. Rajaboina and S. Nagarajan  
*Chem. Eur. J.* **2023**, *29*, e202301076.
64. A microwave-assisted intramolecular aminopalladation-triggered domino sequence: an atom economical route to 5,10-dihydroindeno[1,2-*b*]indoles  
T. Jandial, A. Gupta, G. Jan, M. Karuppasamy, S. Nagarajan, C. U. Maheswari and **V. Sridharan\***  
*Org. Biomol. Chem.* **2023**, *21*, 3121–3131.
63. Microwave-assisted one-pot two-step imine formation–hetero-Diels-Alder–detosylation/aromatization sequence: direct access to dibenzo[*b,h*][1,6]naphthyridines  
G. Jan, A. Kumar, M. Karuppasamy, D. Rajput, N. Slathia, K. K. Kapoor and **V. Sridharan\***  
*Org. Biomol. Chem.* **2022**, *20*, 7472–7482.
62. Microwave-assisted copper(II)-catalyzed cascade cyclization of alkynes: access to densely functionalized imidazo[1,2-*d*][1,4]oxazepines and imidazo[1,2-*d*][1,4]diazepines  
D. Rajput, A. Kumar, T. Jandial, M. Karuppasamy, N. Bhuvanesh, R. S. Kumar, A. I. Almansour, **V. Sridharan\***  
*J. Org. Chem.* **2022**, *87*, 8956–8969.

61. Transition metal-catalyzed synthesis of 1,2-diketones: an overview  
A. Kumar and **V. Sridharan\***  
*Asian J. Org. Chem.* **2021**, *10*, 1619–1637.
60. Direct access to bridged tetrahydroquinolines and chromanes *via* an  $\text{InCl}_3$ -catalyzed sequential three-component cascade  
B. S. Vachan, M. Karuppasamy, G. Jan, N. Bhuvanesh, C. U. Maheswari\* and **V. Sridharan\***  
*J. Org. Chem.* **2020**, *85*, 8062–8073.
59. Palladium(II)-catalyzed direct access to indeno[1,2-*c*]isochromen-5(11*H*)-ones *via* intramolecular oxypalladation-initiated cascade process  
M. Karuppasamy, B. S. Vachan, T. Jandial, S. B. Annes, N. Bhuvanesh, C. U. Maheswari and **V. Sridharan\***  
*Adv. Synth. Catal.* **2020**, *362*, 2716–2724.
58. Chemodivergent synthesis of functionalized methanodibenzo[*b,f*][1,5]diazocin-13-ylmethanones and tetrahydroquinolines *via* solvent-dependent  $\text{AB}_2$  and  $\text{A}_2\text{B}_2$  multicomponent annulation reactions  
I. Muthukrishnan, M. Karuppasamy, B. S. Vachan, D. Rajput, S. Nagarajan, C. U. Maheswari and **V. Sridharan\***  
*Org. Chem. Front.* **2020**, *7*, 1616–1625.
57. N-Heterocyclic carbene catalyzed synthesis of trisubstituted epoxides *via* tandem amidation/epoxidation sequence  
E. Sankari Devi, T. Pavithra, A. Tamilselvi, S. Nagarajan, **V. Sridharan**, C. U. Maheswari  
*Org. Lett.* **2020**, *22*, 3576–3580.
56. Proline and its derivatives as organocatalysts for multicomponent reactions in aqueous media: synergic pathways to the green synthesis of heterocycles  
B. S. Vachan, M. Karuppasamy, P. Vinoth, S. V. Kumar, S. Perumal, **V. Sridharan\***, J. Carlos Menéndez\*  
*Adv. Synth. Catal.* **2020**, *362*, 87–110.
55. Regioselective synthesis of tetrahydroquinolines *via syn*- and anti-nucleopalladation-initiated cascade processes  
M. Karuppasamy, P. Vinoth, N. Pradeep, S. Nagarajan, C. U. Maheswari, **V. Sridharan\***  
*Org. Biomol. Chem.* **2020**, *18*, 8474–8485.
54. An injectable self-healing anesthetic glycolipid-based oleogel with antibiofilm and diabetic wound skin repair properties  
Y. S. Prasad, S. Miryala, K. Lalitha, B. Saritha, C. U. Maheswari, **V. Sridharan**, C. S. Srinandan, S. Nagarajan  
*Sci. Rep.* **2020**, *10*, 18017.
53. A novel indenone derivative selectively induces senescence in MDA-MB-231 (breast adenocarcinoma) cells  
J. Priyanga, B. S. Kumar, R. Mahalakshmi, K. Nirekshana, P. Vinoth, **V. Sridharan**, D. Bhakta-Guha, G. Guha  
*Chem. Biol. Interact.* **2020**, *331*, 109250.
52. Highly chemoselective difluoromethylative homologation of iso(thio)cyanates: expeditious access to unprecedented  $\alpha,\alpha$ -difluoro(thio)amides  
M. Miele, R. D'Orsi, **V. Sridharan**, W. Holzer, V. Pace  
*Chem. Commun.* **2019**, *55*, 12960–12963.

51. Direct access to 9-chloro-1*H*-benzo[*b*]furo[3,4-*e*]azepin-1-ones via palladium(II)-catalyzed intramolecular *syn*-oxypalladation-olefin insertion-*sp*<sup>2</sup>C–H bond activation cascade  
M. Karuppasamy, B. S. Vachan, P. Vinoth, I. Muthukrishnan, S. Nagarajan, L. Ielo, V. Pace, S. Banik, C. U. Maheswari and **V. Sridharan\***  
*Org. Lett.* **2019**, *21*, 5784–5788
50. Heterogeneous Amberlyst-15-catalyzed synthesis of complex hybrid heterocycles containing [1,6]-naphthyridine under metal-free green conditions  
I. Muthukrishnan, B. S. Vachan, M. Karuppasamy, A. Eniyaval, C. U. Maheswari, S. Nagarajan, J. C. Menéndez and **V. Sridharan\***  
*Org. Biomol. Chem.* **2019**, *17*, 6872–6879.
49. Palladium-catalyzed regioselective *syn*-chloropalladation-olefin insertion-oxidative chlorination cascade: Synthesis of dichlorinated tetrahydroquinolines  
P. Vinoth, M. Karuppasamy, B. S. Vachan, I. Muthukrishnan, C. U. Maheswari, S. Nagarajan, V. Pace, A. Roller, N. Bhuvanesh, **V. Sridharan\***  
*Org. Lett.* **2019**, *21*, 3465–3469.
48. Diastereoselective ABB' three-component synthesis of highly functionalized spirooxindoles bearing five consecutive asymmetric carbons  
T. Vivekanand, B. S. Vachan, M. Karuppasamy, I. Muthukrishnan, C. U. Maheswari, S. Nagarajan, N. Bhuvanesh and **V. Sridharan\***  
*J. Org. Chem.* **2019**, *84*, 4009–4016.
47. Progress in the chemistry of tetrahydroquinolines  
I. Muthukrishnan, **V. Sridharan,\*** J. C. Menéndez\*  
*Chem. Rev.* **2019**, *119*, 5057–5191.
46. Construction of substituted imidazoles from aryl methyl ketones and benzylamines via N-heterocyclic carbene-catalysis  
P. A. Alanthadka, E. Sankari Devi, T. Pavithra, S. Nagarajan, **V. Sridharan**, C. U. Maheswari  
*Catal. Commun.* **2019**, *125*, 26–31.
45. Synthesis, characterization and biomedical applications of an alkylated quercetin-gadolinium complex  
S. Kaviarasi, K. S. Shalini Devi, P. Vinoth, **V. Sridharan**, E. Yuba, A. Harada, U. M. Krishnan  
*ACS Biomater. Sci. Eng.* **2019**, *5*, 1215–1227.
44. Metal and solvent-free synthesis of 2*H*-pyrido[1,2-*a*]pyrimidin-2-ones catalyzed by elemental sulfur  
T. Pavithra, E. Sankari Devi, S. Nagarajan, **V. Sridharan**, C. U. Maheswari  
*Eur. J. Org. Chem.* **2019**, 6884–6887.
43. Three-component synthesis of a library of *m*-terphenyl derivatives with embedded β-aminoester moieties  
D. Rocchi, J. F. González, J. Gómez-Carpintero, V. González-Ruiz, M. A. Martín, **V. Sridharan**, and J. C. Menéndez  
*ACS Comb. Sci.* **2018**, *20* 722–731.

42. Enzymatic synthesis and self-assembly of glycolipids: Robust self-healing and wound closure performance of assembled soft materials  
Y. S. Prasad, B. Saritha, A. Tamizhanban, K. Lalitha, S. Kabilan, C. U. Maheswari, V. **Sridharan**, S. Nagarajan  
*RSC Adv.* **2018**, *8*, 37136–37145.
41. Metal-free, base catalyzed oxidative amination and denitration reaction: Regioselective synthesis of 3-arylimidazo[1,2-*a*]pyridines  
E. Sankari Devi, A. Alanthadka, S. Nagarajan, V. **Sridharan**, C. Uma Maheswari  
*Tetrahedron Lett.* **2018**, *59*, 3485–3489.
40. Lipase catalysed synthesis of furan based oligoesters and their self-assembly assisted polymerization  
K. Muthusamy, K. Lalitha, Y. S. Prasad, A. Thamizhanban, V. **Sridharan**, C. Uma. Maheswari, S. Nagarajan  
*ChemSusChem* **2018**, *11*, 2453–2463.
39. N-Heterocyclic carbene-catalyzed Mannich reaction for the synthesis of  $\beta$ -amino ketones: *N,N*-Dimethylformamide as carbon source  
Y. A. Alanthadka, E. Sankari Devi, A. Tamil Selvi, S. Nagarajan, V. **Sridharan**, C. Uma Maheswari  
*Adv. Synth. Catal.* **2017**, *359*, 2369-2374
38. Intrinsic hydrophobic antibacterial thin film from renewable resources: Application in the development of anti-biofilm urinary catheters  
K. Lalitha, M. Sandeep, Y. S. Prasad, V. **Sridharan**, C. Uma Maheswari, C. S. Srinandan, S. Nagarajan  
*ACS Sustainable Chem. Eng.* **2017**, *5*, 436-449.
37. Disassembly of bacterial biofilms by the self-assembled glycolipids derived from renewable resources  
Y. S. Prasad, S. Miryala, K. Lalitha, K. Ranjitha, S. Barbhuiwala, V. **Sridharan**, C. Uma Maheswari, C. S. Srinandan, S. Nagarajan  
*ACS Appl. Mater. Interfaces* **2017**, *9*, 40047-40058.
36. Exploration of antifungal and immunomodulatory potentials of a furanone derivative to rescue disseminated cryptococcosis in mice  
S. S. Rathore, M. Isravel, V. **Sridharan**, D. R. Chellappan, L. Cheepurupalli, T. Raman, J. Ramakrishnan  
*Sci. Rep.* **2017**, *7*: 15400.
35. Morphology transition in helical tubules of a supramolecular gel driven by metal ions  
K. Lalitha, V. **Sridharan**, C. U. Maheswari, P. K. Vemula, S. Nagarajan  
*Chem. Commun.* **2017**, *53*, 1538-1541.
34. Synthesis of 6,12-epiminodibenzo[*b,f*][1,5]diazocines via an ytterbium triflate-catalyzed, AB<sub>2</sub> three-component reaction  
I. Muthukrishnan, M. Karuppasamy, S. Nagarajan, C. U. Maheswari, V. Pace, J. C. Menéndez and V. **Sridharan\***  
*J. Org. Chem.* **2016**, *81*, 9687-9694.
33. Metal-free oxidative amidation of aldehydes with aminopyridines employing aqueous hydrogen peroxide

- E. Sankari Devi, A. Alanthadka, A. Tamilselvi, S. Nagarajan, **V. Sridharan** and C. Uma Maheswari  
*Org. Biomol. Chem.* **2016**, *14*, 8228-8231.
32. NHC Catalyzed Benzylic sp<sup>3</sup> C-H Bond Activation of Alkylarenes and *N*-Benzylamines for the Synthesis of 3*H*-Quinazolin-4-ones - Experimental and Theoretical Study  
A. Alanthadka, E. Sankari Devi, S. Nagarajan, **V. Sridharan**, A. Suvitha and C. Uma Maheswari  
*Eur. J. Org. Chem.* **2016**, 4872-4880.
31. Palladium-Catalyzed Internal Nucleophile-Assisted Hydration-Olefin Insertion Cascade: Diastereoselective Synthesis of 2,3-Dihydro-1*H*-inden-1-ones  
P. Vinoth, S. Nagarajan, C. Uma Maheswari, A. Sudalai, V. Pace and **V. Sridharan\***  
*Org. Lett.* **2016**, *18*, 3442-3445.
30. Lipase catalyzed synthesis of fluorescent glycolipids: Gelation studies and graphene incorporated self-assembled sheet formation for semiconductor applications  
K. Muthusamy, **V. Sridharan**, C. Uma Maheswari and S. Nagarajan  
*Green Chem.* **2016**, *18*, 3722-3731
29. Three-component synthesis of pyrrole-related nitrogen heterocycles via a Hantzsch-type process: Comparison between conventional and high-speed vibration milling conditions  
V. Estévez, **V. Sridharan**, S. Sabaté, M. Villacampa and J. C. Menéndez  
*Asian J. Org. Chem.* **2016**, *5*, 652-662.
28. Synthesis of 5,6-Dihydrodibenzo[*b,h*][1,6]naphthyridines via Copper Bromide Catalyzed Intramolecular [4 + 2] Hetero-Diels-Alder Reactions  
I. Muthukrishnan, P. Vinoth, T. Vivekanand, S. Nagarajan, C. U. Maheswari, J. C. Menéndez and **V. Sridharan\***  
*J. Org. Chem.* **2016**, *81*, 1116-1124.
27. Highly efficient regioselective synthesis of pyrroles *via* a tandem enamine formation-Michael addition-cyclization sequence under catalyst- and solvent-free conditions  
T. Vivekanand, P. Vinoth, B. Agieshkumar, N. Sampath, A. Sudalai, J. C. Menéndez and **V. Sridharan\***  
*Green Chem.* **2015**, *17*, 3415-3423.
26. Palladium(II)-catalyzed intramolecular carboxypalladation-olefin insertion cascade: Direct access to indeno[1,2-*b*]furan-2-ones  
P. Vinoth, T. Vivekanand, P. A. Suryavanshi, J. C. Menéndez, H. Sasai and **V. Sridharan\***  
*Org. Biomol. Chem.* **2015**, *13*, 5175-5181.
25. Stimuli responsive hydrogels derived from a renewable resource: synthesis, self-assembly in water and application in drug delivery.  
K. Lalitha, Y. S. Prasad, C. U Maheswari, **V. Sridharan**, G. John and S. Nagarajan  
*J. Mater. Chem. B*, **2015**, *3*, 5560-5568.
24. *N*-(2-Aminobenzylidene)-4-methylanilines-stable and cheap alternate for 2-aminobenzaldehydes: concise synthesis of 3-

unsubstituted-2-aryloindoles.

T. Vivekanand, T. Sandhya, P. Vinoth, S. Nagarajan, C. U. Maheswari and **V. Sridharan\***  
*Tetrahedron Lett.* **2015**, *56*, 5291-5294.

23. New 5-unsubstituted dihydropyridines with improved Ca<sub>v</sub>1.3 selectivity as potential neuroprotective agents against ischemic injury  
G. Tenti, E. Parada, R. León, J. Egea, S. Martínez-Revelles, A. Briones, **V. Sridharan**, M. G. López, M. T. Ramos, J. C. Menéndez  
*J. Med. Chem.* **2014**, *57*, 4313-4323
22. Fully diastereoselective synthesis of polysubstituted, functionalized piperidines and decahydroquinolines based on CAN-catalyzed multicomponent reactions  
P. A. Suryavanshi, **V. Sridharan**, S. Maiti, J. C. Menéndez  
*Chem. Eur. J.* **2014**, *20*, 8791-8799
21. B-Ring-aryl substituted luotonin A analogues with a new binding mode to the topoisomerase 1-DNA complex show enhanced cytotoxic activity  
V. González-Ruiz, I. Pascua, T. Fernández-Marcelo, P. Ribelles, G. Bianchini, **V. Sridharan**, P. Iniesta, M. T. Ramos, A. I. Olives, M. A. Martín, J. C. Menéndez  
*PLOS ONE* **2014**, *9*, e95998
20. P-Chirogenic organocatalysts: Application to the *aza*-Morita-Baylis-Hillman (*aza*-MBH) reaction of ketimines  
S. Takizawa, E. Rémond, F. A. Arteaga, Y. Yoshida, **V. Sridharan**, J. Bayardon, S. Jugé, and H. Sasai  
*Chem. Commun.* **2013**, *49*, 8392-8394
19. Pd(II)-SDP-Catalyzed enantioselective 5-exo-dig cyclization of  $\gamma$ -alkynoic acids: Application to the synthesis of functionalized dihydrofuran-2(3H)-ones containing a chiral quaternary carbon center  
**V. Sridharan\***, L. Fan, S. Takizawa, T. Suzuki and H. Sasai  
*Org. Biomol. Chem.* **2013**, *11*, 5936-5943
18. A  $\beta$ -enaminone-initiated multicomponent domino reaction for the synthesis of indoloquinolizines and benzoquinolizines from acyclic precursors  
P. A. Suryavanshi, **V. Sridharan** and J. C. Menéndez  
*Chem. Eur. J.* **2013**, *19*, 13207-13215
17. A new CAN-catalyzed domino process related to the Nenitzescu reaction: Very concise access to fused ortho-indolequinones from simple precursors  
P. A. Suryavanshi, **V. Sridharan** and J. C. Menéndez  
*Tetrahedron* **2013**, *69*, 5401-5406  
(Front Cover Page of the Issue)
16. Identification of 4,6-diaryl-1,4-dihydropyridines as a new class of neuroprotective agents  
G. Tenti, J. Egea, M. Villarroya, R. León, J. C. Fernández, J. F. Padín, **V. Sridharan**, M. T. Ramos and J. C. Menéndez  
*Med. Chem. Commun.* **2013**, *4*, 590-594

15. Diastereoselective, multicomponent access to *trans*-2-aryl-4-arylamino-1,2,3,4-tetrahydroquinolines via an AA'BC sequential four-component reaction and their application to 2-arylquinoline synthesis  
  
P. Ribelles, **V. Sridharan**, M. Villacampa, M. T. Ramos and J. C. Menéndez  
*Org. Biomol. Chem.* **2013**, *11*, 569-579
14. New types of reactivity of  $\alpha,\beta$ -unsaturated *N,N*-dimethylhydrazones: Chemodivergent, diastereoselective synthesis of functionalized tetrahydroquinolines and hexahydropyrrolo[3,2-*b*]indoles  
  
**V. Sridharan**, P. Ribelles, V. Estévez, M. Villacampa, M. T. Ramos, P. T. Perumal and J. C. Menéndez  
*Chem. Eur. J.* **2012**, *18*, 5056-5063
13. Advances in the chemistry of tetrahydroquinolines  
  
**V. Sridharan**, P. A. Suryavanshi and J. C. Menéndez  
*Chem. Rev.* **2011**, *111*, 7157-7259
12. Consecutive reactions with sulfoximines: Straightforward synthesis of substituted 5,5-spiroketal  
  
**V. Sridharan**, N. Vologdin, M.-A. Virolleaud, C. Bressy, G. Chouraqui, L. Commeiras, J.-L. Parrain, D. Bonne, Y. Coquerel and J. Rodriguez  
*Synthesis* **2011**, 2085-2090.
11. Synthesis of a library of 5,6-unsubstituted 1,4-dihydropyridines based on a one-pot 4CR/elimination process and their application to the generation of structurally diverse fused nitrogen heterocycles  
  
S. Maiti, **V. Sridharan** and J. C. Menéndez  
*J. Comb. Chem.* **2010**, *12*, 713-722.
10. Expedient, one-pot preparation of fused indoles *via* CAN-catalyzed three-component domino sequences and their transformation into polyheterocyclic compounds containing pyrrolo[1,2-*a*]azepine fragments  
  
P. A. Suryavanshi, **V. Sridharan** and J. C. Menéndez  
*Org. Biomol. Chem.* **2010**, *8*, 3426-3436.  
(One of the top ten most-accessed articles in July 2010, Inside Front Cover of the Issue)
9. Cerium(IV) ammonium nitrate as a catalyst in organic synthesis  
  
**V. Sridharan** and J. C. Menéndez  
*Chem. Rev.* **2010**, *110*, 3805-3849.  
(One of the top ten most-accessed articles during the second quarter of 2010)
8. Mild and high-yielding synthesis of chiral  $\beta$ -keto esters and  $\beta$ -ketoamides  
  
**V. Sridharan**, M. Ruiz and J. C. Menéndez  
*Synthesis* **2010**, 1053-1057.
7. Efficient generation of highly functionalized fused oxazepine frameworks based on a CAN-catalyzed four-component tetrahydropyridine synthesis/ring closing metathesis sequence

**V. Sridharan**, S. Maiti and J. C. Menéndez  
*J. Org. Chem.* **2009**, *74*, 9365-9371

6. Consecutive reactions with sulfoximines: A direct access to 2-sulfonimidoylylidene tetrahydrofurans and 6-sulfonimidoylmethyl-3,4-dihydro-2*H*-pyrans

M.-A. Virolleaud, **V. Sridharan**, D. Mailhol, D. Bonne, C. Bressy, G. Chouraqui, L. Commeiras, Y. Coquerel and J. Rodriguez  
*Tetrahedron* **2009**, *65*, 9756-9764

5. Acid-free synthesis of carbazoles and carbazole-quinones by intramolecular Pd-catalyzed and microwave-assisted oxidative biaryl coupling reactions. Efficient syntheses of murrayafoline A, 2-methoxy-3-methylcarbazole, and glycozolidine

**V. Sridharan**, M. A. Martín and J. C. Menéndez  
*Eur. J. Org. Chem.* **2009**, 4614-4621.

4. Cerium(IV) ammonium nitrate is an excellent, general catalyst for the Friedländer and Friedländer-Borsche quinoline syntheses: Very efficient access to the antitumor alkaloid Luotonin A

**V. Sridharan**, P. Ribelles, M. T. Ramos and J. C. Menéndez  
*J. Org. Chem.* **2009**, *74*, 5715-5718.

3. A very efficient cerium(IV) ammonium nitrate-catalyzed, four-component synthesis of tetrahydropyridines and its application to the concise generation of functionalized homoquinolizine frameworks

**V. Sridharan**, S. Maiti and J. C. Menéndez  
*Chem. Eur. J* **2009**, *15*, 4565-4572.

2. Convenient, two-step synthesis of 2-styrylquinolines: an application of the CAN-catalyzed vinylogous type-II Povarov reaction

**V. Sridharan**, C. Avendaño and J. C. Menéndez  
*Tetrahedron* **2009**, *65*, 2087-2096.

1. Two-step stereocontrolled synthesis of densely functionalized cyclic  $\beta$ -aminoesters containing four stereocenters, based on a new cerium(IV) ammonium nitrate catalyzed sequential three-component reaction

**V. Sridharan** and J. C. Menéndez  
*Org. Lett.* **2008**, *10*, 4303-4306.

## 6. Books

## 7. Chapter in books

1. Book Title: Copper in N-Heterocyclic Chemistry  
Editor: Ananya Srivastava  
Chapter 7: Copper catalysis for the synthesis of quinolines and isoquinolines  
Authors: M. Karuppasamy, B. S. Vachan and **V. Sridharan\***  
Page No:  
DOI: 10.1016/B978-0-12-821263-9.00007-2  
ISBN: 9780128212639

- Publisher: Elsevier, 2020
2. Book Title: Green Sustainable Process for Chemical and Environmental Engineering and Science: Organic Synthesis in Water and Supercritical Water 1<sup>st</sup> Edition  
 Editors: Dr. Inamuddin, Dr. Rajender Boddula, Prof. Abdullah Asiri  
 Chapter 6: Stereoselective organic synthesis in water: Organocatalysis by proline and its derivatives  
 Authors: B. S. Vachan, M. Karuppasamy, P. Vinoth, **V. Sridharan\*** and J. C. Menéndez\*  
 Page No:  
 DOI: 10.1016/B978-0-12-819542-0.00006-3  
 ISBN: 9780128195420  
 Publisher: Elsevier, 26<sup>th</sup> June 2020.
3. Book Title: Advanced Nanocatalysis for Organic Synthesis and Electroanalysis  
 Editors: Vijai K. Rai, Manorama Singh and Ankita Rai  
 Chapter 10: Synthesis of Heterocycles Involving Nanomaterials as Heterogeneous Catalysts  
 Authors: T. Jandial, M. Karuppasamy and **V. Sridharan\***  
 Page No: 193-221  
 ISBN (print): 978-981-5040-17-3  
 Publisher: Bentham Books, 2022
4. Book Title: The Role of Chromenes in Drug Discovery and Development  
 Editors: Ashutosh Kumar Dash and Deepak Kumar  
 Chapter 3: Diversity-Oriented Synthesis of Chromenes  
 Authors: A. Kumar, D. Rajput, G. Jan and **V. Sridharan\***  
 Page No: 43-83  
 ISBN (print): 978-981-5124-34-7  
 Publisher: Bentham Books, 2023

8. **Articles/Research Paper in Books**

9. **Conference Proceedings**

**Conference / Workshops/Training Organized:**

1. Convener: National Conference on Emerging Trends in Chemical Sciences (ETCS-2016), March 14-15, 2019, Department of Chemistry and Chemical Sciences, Central University of Jammu, Jammu.
2. Organizer: *ChemForum* 1<sup>st</sup> Lecture Series, 25<sup>th</sup> January 2019, Department of Chemistry and Chemical Sciences, Central University of Jammu, Jammu.
3. Convener: One day Awareness Seminar on the Importance of Intellectual Property Rights, 24<sup>th</sup> January 2020, Institution Innovation Council (IIC), Central University of Jammu.
4. Convener: One day Webinar on Emerging Trends in Organic Synthesis (ETOS-2021) on 19<sup>th</sup> March, 2021 under the aegis of Chemical Research Society of India, Jammu & Kashmir Chapter in collaboration with Department of Chemistry IIT Jammu
5. Convener: International Conference on Recent Advances in Chemical Sciences (RACS-2022), November 10-11, 2022, Department of Chemistry and Chemical Sciences, Central University of Jammu, Jammu.
6. Organizer: *ChemForum* Lecture Series-2, 7<sup>th</sup> September 2022, Department of Chemistry and Chemical Sciences, Central University of Jammu, Jammu.

7. Organizer: *ChemForum* Lecture Series-3, 9<sup>th</sup> January 2022, Department of Chemistry and Chemical Sciences, Central University of Jammu, Jammu.
8. Organizer: *ChemForum* Lecture Series-4, 14<sup>th</sup> September 2022, Department of Chemistry and Chemical Sciences, Central University of Jammu, Jammu.
9. Convener: Two-Week Online Faculty Development Programme in Chemistry and Allied Sciences [FDPCAS – 2023] (*Refresher Course*), 26<sup>th</sup> October-8<sup>th</sup> November 2023, Department of Chemistry and Chemical Sciences, Central University of Jammu, Jammu.

#### Creation of ICT Mediated Teaching Learning Pedagogy and Content:

#### Conference/Workshops/Training attended as Faculty Member:

1. Attended a prestigious five day conference of Nobel Laureates and students in chemistry held at Lindau, **Germany** during July 1-5, **2002**
2. Mechanism of oxidation of  $\alpha$ -aryl-N-2-(hydroxyaryl)imines by lead tetraacetate  
**V. Sridharan** and S. Muthusubramanian  
National Symposium on Recent Developments in Organometallic Chemistry (REDOM-2003) held at M.S. University, Tirunelveli, **India 2003**, Oral-24
3. X-Ray studies on 2-(2-hydroxy-5-alkyl/arylsubstituted aryl)-5-alkyl substituted Benzoxazoles  
**V. Sridharan**, S. Muthusubramanian and S. Sivasubramanian  
Seminar on Current Trends in Chemistry, held at M.K. University, Madurai, **India 2003**, Poster-37
4. Effect of substituents on the conformation of isoxazolidines- NMR and X-ray Studies  
**V. Sridharan** and S. Muthusubramanian  
Second CRSI Regional Symposium held at Bharathidasan University, Trichy, **India 2004**, Poster-5, Oral-5
5. Synthesis of [3-(2-methoxyaryl)-2,5-diaryltetrahydro-4-isoxazolyl](2-thienyl)methanone *via* 1,3-dipolar cycloaddition  
**V. Sridharan** and S. Muthusubramanian  
7<sup>th</sup> CRSI National Symposium held at Calcutta, **India 2005**, Poster-127
6. Bischler indole synthesis under microwave irradiation: A solvent-free synthesis of 2-arylindoles  
**V. Sridharan**, S. Perumal, C. Avendaño and J. C. Menéndez  
9<sup>th</sup> International Electronic Conference on Synthetic Organic Chemistry (ECSOC-9), **2005**
7. Carbazole derivatives as potential fluorescence chemosensors for anions  
V. González-Ruiz, **V. Sridharan**, A. I. Olives, M. A. Martín, B. Castillo and J. C. Menéndez  
XII<sup>th</sup> International Symposium on Luminescence Spectrometry held at Lugo, **Spain 2006**, Poster-138
8. Multicomponent synthesis of nitrogen heterocycles through vinylogous Povarov reactions  
**V. Sridharan**, P. T. Perumal, C. Avendaño and J. C. Menéndez  
4<sup>th</sup> Spanish-Portuguese-Japanese Symposium on Organic Chemistry held at Santiago de Compostela, **Spain 2006**, Poster-97
9. Microwave-assisted solvent-free synthesis and antifungal activities of novel bis-1,3-thiazolidin-4-ones

I. Rajendran, **V. Sridharan** and Muthusubramanian  
National Seminar on Frontiers in Chemistry held at CUSAT, Cochin, **India 2006**, OC-8

10. Solventless reaction of lead tetraacetate with *N*-2-hydroxyaryl imines

R. Manikannan, **V. Sridharan** and S. Muthusubramanian  
CRSI Regional Symposium: Recent Advances in Chemistry (READCHEM) held at Annamalai University, **India 2006**, Poster-35

11. Synthesis and reactions of 3-aryl-1-(tetrahydro-2,3,5-triaryl-4-isoxazolyl)-2-propen-1-ones

S. R. Jayapradha, **V. Sridharan** and S. Muthusubramanian  
8<sup>th</sup> CRSI National Symposium in Chemistry held at Mumbai, **India 2006**, Poster-45

12. A new multicomponent CAN catalyzed stereoselective synthesis of tetrasubstituted cyclohexanes, cyclohexenes, cyclohexadienes and benzenes.

**V. Sridharan**, C. Avendaño and J. C. Menéndez  
RSC 20<sup>th</sup> International Symposium: Synthesis in Organic Chemistry, University of Cambridge, **United Kingdom 2007**, Poster-68

13. Stereoselective synthesis of 4-arylamino-1,2,3,4-tetrahydroquinolines by a new four component reaction.

P. Ribelles, **V. Sridharan**, C. Avendaño, M. T. Ramos and J. C. Menéndez  
31<sup>st</sup> Spanish Chemical Society Conference, UCLM, Toledo, **Spain 2007**, Poster-102

14. A Facile CAN catalyzed Friedlander reaction: Application to the synthesis of the natural product Lutonin and its analogs.

**V. Sridharan**, P. Ribelles, C. Avendaño, M. T. Ramos and J. C. Menéndez  
31<sup>st</sup> Spanish Chemical Society Conference, UCLM, Toledo, **Spain 2007**, Poster-103

15. Participated in the 5<sup>th</sup> Organic Chemistry Symposium of Marseille (RCOM-5) held at Luminy, Marseille, **France 2008**.

16. A new, CAN-catalyzed four-component tetrahydropyridine synthesis and its application to the concise access to homoquinolizine systems

**V. Sridharan**, S. Maiti and J. C. Menéndez  
Tenth Tetrahedron Symposium: Challenges in Organic and Bioorganic Chemistry, 23-26 June **2009**, Paris, **France**, Poster-B129

17. An efficient synthesis of pyrido[2,2-*b*][1,3]oxazepines based on a CAN-catalyzed four-component tetrahydropyridine synthesis/ring closing metathesis sequence

**V. Sridharan**, S. Maiti and J. C. Menéndez  
32<sup>nd</sup> Spanish Chemical Society Conference, Oviedo, **Spain 2009**, Poster-PG1-69.

18. CAN-catalyzed multicomponent synthesis of fused indole derivatives

P. Suryavanshi, **V. Sridharan** and J. C. Menéndez  
32<sup>nd</sup> Spanish Chemical Society Conference, Oviedo, **Spain 2009**, Poster-PG1-70.

19. Easy and sensitive detection of relevant oxidant species based on the *in situ* generation of highly fluorescent 4,6-diaminoanthranilates

**V. Sridharan**, J. C. Menéndez, M. A. Martin and J. Rajesh  
5<sup>th</sup> Symposium for Young Researchers (RSEQ-Sigma Aldrich), Granada, **Spain 2009**, Oral communication-C.O.17

20. Exploiting a mild aromatization reaction of diarylcyclohexadienes for the sensitive detection of biologically relevant oxidants  
M. A. Martin, J. Rajesh, **V. Sridharan** and J. C. Menéndez  
XIV International Symposium on Luminescence Spectrometry, Prague, **Czech Republic 2010**, Poster-104
21. Uranyl complexes of new Schiff bases derived from 1,2/1,3-diamines and substituted salicylaldehydes  
M. Karpagavalli, **V. Sridharan** and S. Muthusubramanian  
National seminar on recent advances in inorganic and nanochemistry, RAINC, Madurai, **India 2010**, PP-38
22. Highly diastereoselective synthesis of quinolizidines based on a four-component reaction from acyclic materials  
**V. Sridharan**, I. Ortin and J. C. Menéndez  
The 14<sup>th</sup> SANKEN International Symposium 2011, Otsu, **Japan 2011**, Poster-2
23. Efficient synthesis of indoloquinolizidines based on a CAN-catalyzed four-component reaction  
P. Suryavanshi, **V. Sridharan** and J. C. Menéndez  
Twelfth Tetrahedron Symposium: Challenges in Organic and Bioorganic Chemistry, Sitges, **Spain 2011**, Poster-P2-125
24. Synthesis of indeno[1,3-*b*]furan-2-ones *via* a Pd-catalyzed annulation/Heck reaction cascade  
**V. Sridharan**, P. A. Suryavanshi, S. Takizawa, T. Suzuki, H. Sasai and J. C. Menéndez  
RSC Challenges in Organic Chemistry and Chemical Biology (ISACS7), Edinburg, **United Kingdom 2012**, Poster-154
25. A new class of dihydropyridines with neuroprotective properties  
G. Tenti, R. León, J. Egea, M. Villarroya, J. C. Fernández, J. F. Padín, **V. Sridharan**, M. T. Ramos, J. C. Menéndez  
XXII<sup>nd</sup> International Symposium on Medicinal Chemistry (ISMC 2012) Berlin, **Germany**, 2-6 September **2012**, Poster- 218
26. Attended the 6<sup>th</sup> Takeda Science Foundation Symposium on PharmaSciences 'How Fascinating the Synthetic Organic Chemistry Is' held at Osaka, **Japan**, 13-14 September **2012**
27. Solvent effect in molecular recognition of anions for carbazole derived fluorescent sensors  
V. González-Ruiz, A. I. Olives, M. A. Martín, **V. Sridharan**, M. Villacampa, J. C. Menéndez  
XXIII<sup>th</sup> National Meeting-VII<sup>th</sup> Congress Iberico on Spectroscopy, Cordoba, **Spain** 17-20 September **2012**
28. Highly efficient regioselective synthesis of pyrroles under catalyst- and solvent-free conditions  
T. Vivekanand, P. Vinoth, B. Agieshkumar, A. Sudalai, J. C. Menéndez, **V. Sridharan**  
10<sup>th</sup> Mid-Year CRSI Symposium in Chemistry, Jointly organized by National Institute of Technology (NIT) and Bharathidasan University, Tiruchirappalli, **India**, July 23-25, **2015**, Poster – PP133
29. Palladium(II) catalysed intramolecular carboxypalladation-olefin insertion cascade: Facile synthesis of indeno[1,2-*b*]furan-2-ones  
P. Vinoth, T. Vivekanand, P. A. Suryavanshi, J. C. Menéndez, **V. Sridharan**  
10<sup>th</sup> Mid-Year CRSI Symposium in Chemistry, Jointly organized by National Institute of Technology (NIT) and Bharathidasan University, Tiruchirappalli, **India**, July 23-25, **2015**, Poster – PP86
30. Development of copper(II) bromide-catalysed intramolecular [4+2] hetero-Diels-Alder reaction: Application to the synthesis of 5,6-dihydrodibenzo[*b,h*][1,6]naphthyridines  
I. Muthukrishnan, **V. Sridharan**  
CRSI National Seminar on Emerging Trends in Chemistry, Madurai Kamaraj University, Madurai, **India**, February 18-20, **2016**, Poster – PP08

31. Synthesis of dihydro-1*H*-inden-1-ones via internal nucleophile-assisted, nucleopalladation-initiated cascade  
 P. Vinoth, **V. Sridharan**  
 17<sup>th</sup> Tetrahedron symposium: Challenges in Biological, Bioorganic, Organic and Medicinal Chemistry, 28<sup>th</sup> June-1<sup>st</sup> July 2016, Sitges, Barcelona, Spain, Poster P4-001
32. Synthesis of 3-unsubstituted-2-arylindoles and fused quinolines from stable *N*-(2-aminobenzylidene)-4-methylanilines  
 T. Vivekanand, **V. Sridharan**  
 International Conference on Materials for Sustainable Future (ICMSF 2016), SASTRA University, Thanjavur, **India**, July 14-15, **2016**, Poster – 54
33. Lewis acid catalysed ABB' three-component synthesis of epiminodiazocines  
 I. Muthukrishnan, M. Karuppasamy, **V. Sridharan**  
 International Conference on Materials for Sustainable Future (ICMSF 2016), SASTRA University, Thanjavur, **India**, July 14-15, **2016**, Poster – 56
34. Synthesis of dihydro-1*H*-inden-1-ones via internal nucleophile-assisted, nucleopalladation-initiated cascade  
 P. Vinoth and **V. Sridharan**  
 International Conference on Materials for Sustainable Future (ICMSF 2016), SASTRA University, Thanjavur, **India**, July 14-15, **2016**, Oral Presentation – 4
35. Diastereoselective synthesis of spirooxindoles via an organocatalyzed ABB' three-component process  
 T. Vivekanand and **V. Sridharan**  
 21<sup>st</sup> International Conference on Organic Synthesis, December 11-16, **2016**, Mumbai, **India**, Poster – 457
36. Synthesis of 7-amino-6*H*-benzo[*c*]chromen-6-ones *via* scandium triflate catalyzed three-component reaction under green conditions  
 B. S. Vachan, M. Karuppasamy, C. U. Maheswari and **V. Sridharan**  
 Emerging Trends in Chemical Sciences (ETCS-2016), March 14-15, 2019, Central University of Jammu, Jammu, India, OP-03.
37. Palladium(II)-catalyzed intramolecular syn-oxypalladation-olefin insertion-ortho-chlorination cascade: Access to 9-chloro-1*H*-benzo[*b*]furo[3,4-*e*]azepin-1-ones  
 M. Karuppasamy, I. Muthukrishnan, B. S. Vachan, C. U. Maheswari and **V. Sridharan**  
 Emerging Trends in Chemical Sciences (ETCS-2016), March 14-15, 2019, Central University of Jammu, Jammu, India, OP-04.
38. Copper-catalyzed three-component synthesis of 4a,9a-dihydro-9*H*-carbazoles via  $\beta$ -enaminone formation-initiated cascade reaction  
 I. Muthukrishnan, B. S. Vachan, M. Karuppasamy and **V. Sridharan**  
 Emerging Trends in Chemical Sciences (ETCS-2016), March 14-15, 2019, Central University of Jammu, Jammu, India, PP-18.
39. Direct C–H bond activation-initiated cascade reactions via oxidative organocatalysis  
 B. S. Vachan, P. Khajuria and **V. Sridharan**  
 Emerging Trends in Chemical Sciences (ETCS-2016), March 14-15, 2019, Central University of Jammu, Jammu, India, PP-50.
40. Microwave-Assisted Synthesis of Fused Benzoxazepine and Benzodiazepine Derivatives  
 D. Rajput, T. Jandial, A. Kumar and **V. Sridharan\***  
 27<sup>th</sup> CRSI-NSC Meeting, 26-30<sup>th</sup> September, 2021, Kolkata, India (p-93).

41. Microwave-Assisted One-Pot, Two-Step Synthesis of Dibenzo[*b,h*][1,6]naphthyridines.  
G. Jan, A. Kumar and **V. Sridharan\***  
27<sup>th</sup> CRSI-NSC Meeting, 26-30<sup>th</sup> September, 2021, Kolkata, India (p-102).
42. Reactivity of 2 Propargylamino/Oxy-Arylaldehydes and 3,5-Di-*tert*-Butylphenol Under Basic Conditions.  
D. Rajput, R. Khatoon and **V. Sridharan\***  
International Conference on Recent Advances in Chemical Sciences (RACS-2022), 10-11<sup>th</sup> November 2022, Central University of Jammu, Jammu, India (OP-08).
43. Synthesis of Pyrazole-Tethered Indolo[3,2-*b*]carbazoles *via* Lewis Acid-Catalyzed AB<sub>2</sub>Three-Component Reaction.  
G. Jan, M. Karuppasamy and **V. Sridharan\***  
International Conference on Recent Advances in Chemical Sciences (RACS-2022), 10-11<sup>th</sup> November 2022, Central University of Jammu, Jammu, India (PP-06).
44. Palladium-Catalyzed Intramolecular Oxypalladation-Initiated Cascade: Solvent-Dependent Chemodivergent Approach to Functionalized Benzazepines and Tetrahydroquinolines.  
A. Gupta, T. Jandial, M. Karuppasamy and **V. Sridharan\***  
International Conference on Recent Advances in Chemical Sciences (RACS-2022), 10-11<sup>th</sup> November 2022, Central University of Jammu, Jammu, India (PP-22).
45. Microwave-Assisted Synthesis of Indeno[1,2-*b*]indoles *via* Palladium(II)-Catalyzed Intramolecular Aminopalladation-Initiated Cascade Process.  
T. Jandial, A. Gupta and **V. Sridharan\***  
International Conference on Recent Advances in Chemical Sciences (RACS-2022), 10-11<sup>th</sup> November 2022, Central University of Jammu, Jammu, India (PP-42).
46. Palladium Catalyzed Functionalization of Alkynes  
O. Mahajan, R. Mehta, Z. N. Mughal, A. Sharma and **V. Sridharan\***  
International Conference on Recent Advances in Chemical Sciences (RACS-2022), 10-11<sup>th</sup> November 2022, Central University of Jammu, Jammu, India (PP-68).

#### Invited Lectures/Resource Persons:

- Title: Synthesis of biologically relevant compounds *via* palladium-catalyzed nucleopalladation-initiated cascade reactions  
Event: National Level Seminar on Science and Technology for the Unreached: Notions, Values and Applicability, Govt. Degree College, Samba  
Date: 20-21<sup>st</sup> April 2018
- Title: Recent trends in multi-bond forming reactions in organic synthesis  
Event: Refresher Course in Chemistry for University/College teachers sponsored by UGC-HRDC organized by The Department of Chemistry, University of Jammu, Jammu.  
Date: 6<sup>th</sup> December 2019
- Title: Nucleopalladation-initiated cascade reactions of alkynes: Exploring the synthetic potential and mechanistic facets  
Event: International Conference on Chemistry for Human Development (ICCHD-2020), University of Calcutta, Kolkata, India  
Date: 9-11<sup>th</sup> January, 2020

4. Title: Recent Trends in Multi-bond Forming Reactions in Organic Synthesis  
Event: Two-week Refresher Course entitled "Frontiers in Chemistry", School of Chemistry, Madurai Kamaraj University, Madurai.  
Date: 20<sup>th</sup> November 2021.
5. Title: Recent Trends in Multi-bond Forming Reactions in Organic Synthesis  
Event: Skill Based Internship Program (SBIP) on Rational Design of Nanomaterial Catalysts, University of Madras, Chennai.  
Date: 5<sup>th</sup> January 2022.
6. Title: Nucleopalladation-Initiated Cascade Reactions of Alkynes  
Event: 28<sup>th</sup> CRSI-NSC Meeting, IIT Guwahati, Guwahati  
Date: 4-6<sup>th</sup> February 2022
7. Title: Nucleopalladation-initiated cascade reactions of alkynes  
Event: Online Two-Days Workshop for Faculty Development Programme on Strategies in Organic Synthesis, National Institute of Technology Warangal (NITW), Warangal, India  
Date: 6-7<sup>th</sup> May, 2022
8. Title: Synthetic Strategies Involving Multi-Bond Forming Reactions  
Event: Online Two-Days Workshop for Faculty Development Programme on Strategies in Organic Synthesis, National Institute of Technology Warangal (NITW), Warangal, India  
Date: 6-7<sup>th</sup> May, 2022
9. Title: Nucleopalladation-Initiated Cascade Reactions: Synthetic Potential and Mechanistic Aspects  
  
Event: Two-Days International Webinar on Recent Advances in Chemical Sciences (RACS 2022), Department of Chemistry, The Gandhigram Rural Institute (Deemed University)  
Date: 21-22<sup>nd</sup> July 2022.

#### Research Projects (Major Grants/Research Collaboration):

##### ONGOING

1. Title: Exploring the Synthetic Potential and Mechanistic Features of Novel Nucleopalladation-Initiated Multi-bond Forming Reactions of Alkynes  
Funding Agency: DST-SERB  
Budget: Rs. 35,97,022/ (CRG/2021/000760)  
Duration: 3 years (2021-2024)  
Role: Principal Investigator (PI)
2. Title: Development of Sensing Technologies for Explosives Detection Involving Metal Organic Frameworks (MOFs)  
Funding Agency: DRDO  
Budget: Rs. 1,36,51,000/ (DFTM/08/3700/Sens/M/P-03)  
Duration: 3 years (2020-2023)  
Role: Co-Principal Investigator  
Principal Investigator: Dr. Pawan Kumar

##### COMPLETED

1. Title: Inert C-H Bond Activation-Initiated Cascade Processes via Oxidative Organocatalysis  
Funding Agency: DST-SERB  
Budget: Rs. 53,38,300/ (EMR/2016/001619)  
Duration: 3 years (2017-2020)  
Role: Principal Investigator (PI)
2. Title: Development of Novel Palladium-Catalyzed Domino Reactions: Synthesis of Biologically Relevant Compounds Involving Pd<sup>II</sup> and Pd<sup>II/IV</sup> Catalysis  
Funding Agency: DST-SERB

Budget: Rs. 24,98,000/ (SB/FT/CS-006/2013)  
Duration: 3 years (2013-2016)  
Role: Principal Investigator (PI)

3. Title: Creation of Molecular Diversity and Complexity: Eco-compatible Access to Biologically Significant, Natural Product-like Indole-fused Spiro Compounds *via* Novel Multi-bond Forming Processes  
Funding Agency: CSIR  
Budget: Rs. 21,96,000/ (02(0219)/14/EMR-II)  
Duration: 3 years (2015-2017)  
Role: Principal Investigator (PI)

#### **Indo-Austrian Collaborative Project**

4. Title: Development of Fluorinated Homochiral Lithium Carbenoids and Their Synthetic Applications  
Funding Agency: DST (India) and BMWF (Austria)  
Collaborative Institute: University of Vienna, Austria  
Austrian Collaborator: Dr. Vittorio Pace  
Budget: Rs. 10,80,000/-  
Duration: 2 years (2015-2017)  
Role: Principal Investigator (PI)

In addition, I was one of the co-investigators of the following two major and one minor research projects sponsored by the Ministry of Education and Science (Ministerio de Educación y Ciencia, currently known as Ministerio de Ciencia e Innovación) of **Spain**

1.

**Title of the project:** Cerium(IV) catalyzed novel multicomponent reactions. Applications to the generation of molecular complexity and diversity

(Nuevas reacciones multicomponente catalizadas por especies de cerio(IV). Aplicaciones a la generación de diversidad y complejidad molecular)

**Funding agency:** Ministry of Education and Science (Ministerio de Educación y Ciencia, currently known as Ministerio de Ciencia e Innovación), Spain

**Duration:** 1st October 2006 to 30th September 2009

**Project number:** CTQ2006-10930/BQU

**Amount of Grant:** 107,000 Euros

**Principal Investigator:** Professor J. Carlos Menéndez

2.

**Title of the project:** Synthesis of biologically important poly-heterocycles *via* multicomponent-domino reactions  
(Synthese de molecules polyheterocycliques d'interet pharmaceutique par reactions domino-multicomposes)

**Funding agency:** Région Provence-Alpes-Côte d'Azur, Bourse post-doctorale d'accueil, France

**Duration:** 1st January 2007 to 31st December 2007

**Amount of Grant:** 15,000 Euros

**Principal Investigators:** Professor J. Carlos Menéndez and Professor Jean Rodriguez

3.

**Title of the project:** Development of new multicomponent reactions. Application to the synthesis of bioactive alkaloids and analogues

(Desarrollo de nuevas reacciones multicomponente. Aplicación a la síntesis de alcaloides bioactivos y análogos)

**Funding agency:** Ministry of Education and Science (Ministerio de Educación y Ciencia, currently known as Ministerio de Ciencia e Innovación), Spain

**Duration:** 1st October 2009 to 30th September 2012

**Project number:** CTQ2009-12320/BQU

**Amount of Grant:** 142,000 Euros

**Principal Investigator:** Professor J. Carlos Menéndez

#### Awards and Distinctions:

- Received Chemical Research Society of India (CRSI) Bronze Medal 2022.
- Convener, Chemical Research Society of India (CRSI) Local Chapter J&K, 2020-2023.
- Council Member, Chemical Research Society of India (CRSI), 2023-2026.
- Awarded the **Japanese Society of Promotion of Science (JSPS) fellowship** in August 2010
- Visiting Professor, **University of Vienna**, May 2016 and May 2017
- Received **Postdoctoral Research Fellowships** from the University of Paul Cezanne, Marseille, **France** (2008-2009) and the Complutense University, Madrid, **Spain** (2005-2008 and 2009-2010)
- Received a **Research Prize** from the Spanish National Royal Academy of Pharmacy for the outstanding contribution in research (Premio Carlos del Castillo Leyva, January 2009, **Spain**)
- Received the competitive welcoming grant from the Government of Marseille for new researchers at Marseille, 2008, **France**
- Received **Gold medal** from Madurai Kamaraj University, India, for securing the **University first rank in Master of Science**, 1999
- Selected by the Department of Science and Technology (DST), Government of India to participate in the **Meeting of Nobel Laureates and students in Chemistry** at Lindau, **Germany** during July 1-5, 2002
- **Senior Research Fellowship** (SRF-NET) Award - Council of Scientific and Industrial Research (**CSIR**) Government of India. 2002 to 2005
- **Junior Research Fellowship** (JRF-NET) Award - Council of Scientific and Industrial Research (**CSIR**) Government of India. 2000 to 2002
- Qualified Graduate Aptitude Test in Engineering (**GATE**), 2000
- Received Sri M Bhaktavasalam 68<sup>th</sup> Birthday Commemoration Prize awarded by Madurai Kamaraj University for having secured the **highest number of marks in Master of Science**
- Awarded the Professor T Sakthivelu Manivizha Kuzhu Endowment Prize by Madurai Kamaraj University for having secured the **highest number of marks in Master of Science**

#### VISITS ABROAD

- **GERMANY:** To attend the prestigious five day conference of Nobel Laureates and students in chemistry held at Lindau, Germany during July 1-5, 2002 sponsored by Department of Science and Technology (DST), Government of India, and DFG, Germany
- **SPAIN:** Spent 4 years and 6 months as a Postdoctoral Researcher/Teaching Assistant in the Department of Organic and Pharmaceutical Chemistry, Complutense University, Madrid, Spain
- **UNITED KINGDOM:** To attend the RSC 20<sup>th</sup> International Symposium: Synthesis in organic chemistry, University of Cambridge, the UK during 16-19 July 2007
- **FRANCE:** Spent one year postdoctoral stay in the iSm2, Saint Jerome Campus, University of Paul Cezanne, Marseille, France

- **JAPAN:** Worked as a JSPS postdoctoral fellow for two years at Osaka University, Osaka, Japan
- **AUSTRIA:** Visiting Profssor, University of Vienna, May 2016 and May 2017

**Association with Professional Bodies:**

**Other Activities:**

Prof. V. Sridharan