CURRICULUM VITAE

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EDUCATION

- Post-Doctoral Associate (2007–2008), Talca University, Chile
- Ph.D. (2002–2007), CSIR-IICT, Hyderabad, India
- M.Sc (1998–2000), Kakatiya University, India
- B.Sc (1993–1996), Kakatiya University, India

PROFESSIONAL EXPERIENCE

- Professor (December 2024 – till date), NIPER-Hyderabad
- Associate Professor (July 2016 – December 2024), NIPER-Hyderabad
- Assistant Professor (August 2009 – July 2016), NIPER-Hyderabad
- Research Associate (March to August 2009), CSIR-IICT, Hyderabad
- Visiting Scientist (January to February 2008), UNICAMP, Brazil
- Lecturer (2000–2002), Shathavahana Degree College, Affiliated to Kakatiya University
- Member (from 2011), External Examiner Panel, Kakatiya University
- Member (from 2014), External Examiner Panel, Telangana University
- Academic Advisory board member (from 2015), RIPER, Anantapur, JNTUA, India
- Member in Board of Studies (BoS), Pharmacy Department, JNTUA, Ananthapur, Andhra Pradesh
- Member in Board of Studies (BoS), RIPER, Anantapur, JNTUA, India
- Member (CFO Committee, from 2014-2018) in Telangana State Pollution Control Board (TSPCB)
- Member (Task Force Committee, from 2018 – 2022) in Telangana State Pollution Control Board (TSPCB)
- Member in Board of Studies (BoS), Pharmacy Department, Krishna University
- Member of Board of Studies (BoS), Depart. of Pharmaceutical Chemistry, Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu
- Member of Board of Studies (BoS), Department of Chemistry, Vignan University, Hyderabad
- Member of Board of Studies (BoS), Nirmala College of Pharmacy, Kadapa, Andhra Pradesh
- Member of Board of Studies (BoS), P. Rami Reddy Memorial College of Pharmacy, Kadapa, Andhra Pradesh
- Member in Senate Committee, Annamacharya College of Pharmacy, Rajampet, Andhra Pradesh
- Life time membership – Chemical Research Society of India (CRSI-India)
- Editorial Board Member – Bioorganic Chemistry, Elsevier Publishers, UK - 2024
- Associate Editor – New Journal of Chemistry, Royal Society of Chemistry, UK - 2026

FELLOWSHIPS/GRANTS

- ICMR grant 2023
- Young Scientist Research Grant, SERB, DST, 2015
- Research Project Award: “FONDECYT INCIATION PROJECT” (1 million US$), rated 3rd Rank, Chile
- SRF (2004–2007) in Chemical Sciences, CSIR, India
- JRF (2002–2004) in Chemical Sciences, CSIR, India

AWARDS/HONORS/RECOGNITIONS

- Listing in top 2% scientist worldwide, from past 5 years
- Fellow of Telangana Academy of Sciences (FTASc), Year 2021
- Best Research Scientist Award from NIPER-Hyderabad, Year 2016
- Associate Fellow of A.P. Akademi of Sciences, Year 2014
- OPPI Young Scientist Award - 2010 from Organisation of Pharmaceutical Producers of India

RESEARCH COLLABORATIONS

- Prof. Leonardo S. Santos, Talca University, Chile

- Dr. Sathish Manda, Catholic University of Maule, Talca, Chile
- Dr. Suresh K. Bhargava, RMIT, Australia
- Prof. Dr. Marcos N. Eberlin, University of CAMPINUS, Brazil
- Dr. Narayana Nagesh, CSIR-CCMB, Hyderabad, India

RESEARCH INTERESTS

- Design and synthesis of New Chemical Entities (NCEs) of anticancer agents in 'Drug Discovery'
- Biological targets: Multi-kinase inhibitors, DNA minor groove, intercalators, Tubuline inhibition, topo-I & II, CDK inhibitors, etc
- C-H Activation reactions, one-pot, multi-component and cascade reactions
- Development of alternative sustainable greener methods in pharmaceutical chemistry
- Exploration of new synthetic methodologies and studying their mechanisms by "online ESI-MS/MS"

RESEARCH GROUP

Project Research Scientist-I:

Dr. Dastari Sowmya
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Present PhD Scholars:

Joydeep Pal
Batch: 2024

Adarsh Jha
Batch: 2023

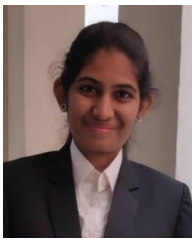
Ghule Shailendra Shivaji
Batch: 2023

Kshirsagar Prasad Suhas
Batch: 2023

Shivam Gupta
Batch: 2023

Ms. Pooja Kumari
Batch: 2022

Ms. Swetha Singitham
Batch: 2022



Mrs. Mary Sravani Galla
Batch: 2021

Mr. Akshay Kumawat
Batch: 2021

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- 150 Students have completed for their 1-year M.S (Pharm.) dissertation projects
- 10 MS (Pharm.) students are presently working for their dissertation projects

RESEARCH PUBLICATIONS

2026

1. Therapeutic potential of spirocyclopropyl oxindoles: Latest developments in drug discovery; Dastari, S.; **Shankaraiah, N**. *Future Med. Chem*., **2026**, *under minor revision*
2. A sustainable Ullman-type coupling employing water-soluble Cu(I) catalyst: Enroute to C-C, C-O and C-N bond formation for different bioactive frameworks; Galla, M. S.; Gupta, S.; Patalbansi, S.; Kumawat, A.; **Shankaraiah, N**. *J. Mol. Struct*., **2026**, *under review*
3. NIS-Mediated Olefination of Quinoxalin-2(1*H*)-ones Using Ketone Derivatives: A Facile Synthetic Access to (*Z*)-Enaminone Frameworks; Jha, A.; Dastari, S.; Sathish, M.; **Shankaraiah, N**. *Asian J. Org. Chem*., **2026**, *under review*
4. Copper(II)-catalyzed one-pot synthesis of thiazole/benzothiazole-based isoquinolin-1(2*H*)-ones as potential cytotoxic and VEGFR-2 inhibitors; Gupta, S.; Ezhilmathe A, Galla, M. S.; Godugu, C.; **Shankaraiah, N**. *Bioorg. Chem*., **2026**, *170,* 109506
5. Visible-Light Mediated One-Pot Synthesis of Pyrazolo[3,4-*b*]Pyridines *via* Intramolecular Rearrangement; Singitham, S.; Galla, M. S.; Avvaru, S. J.; Sathish, M.; Kumari, P.; Dikundwar, A. G.; **Shankaraiah, N**. *Asian J. Org. Chem*., **2025**, *15,* e70344
6. Harnessing functionalized alkynes in annulation reactions: a comprehensive review; Kale, N. B.; Galla, M. S.; **Shankaraiah, N**. *Asian J. Org. Chem*., **2026**, *15,* e70290
7. Metal-free, solvent-controlled divergent synthesis of substituted α-keto amides/benzimidazo-quinazolines: DFT, crystallographic analysis and *in silico* studies; Dastari, S.; Kopuri, S.; Jha, A.; Avvaru, S. J.; Dikundwar, A. G.; **Shankaraiah, N**. *J. Mol. Str*., **2026**, *1353,* 144581

2025

8. β-Carbolines linked γ-amino butyric acid/*p*-amino benzoic acid based carboxamides as histone deacetylase inhibitors: Design, synthesis, cytotoxicity and *in silico* studies; Kumawat, A.; Ambati, H.; Galla, M. S.; Kuralkar, K.; M. Venkatesh, Ghosh, B.; **Shankaraiah, N**. *Int. J. Biol. Macromol*., **2025**, *334,* 149131
9. Design, synthesis, and cytotoxicity evaluation of styrylspirooxindole carboxamides as potential tubulin and VEGFR-2 dual inhibitors; Dastari, S.; Pasupuleti, V.; Madhurya, M. S.; Sharma, A.; Godugu, C.; **Shankaraiah, N**. *ChemMedChem* **2025**, *20,* e202500634
10. Metal-free Amination of Imidazoheteroarenes Employing p-Quinone Diimides (p-QDIs); Khan, M. A.; Saha, S.; Sakla, A. P.; Sathish, M.; **Shankaraiah, N**. *ChemistrySelect* **2025**, *10,* e04429
11. Design, synthesis, and cytotoxicity evaluation of 1,2,3-triazole-linked β-carboline–benzimidazole hybrids as tubulin polymerization inhibitors; Khan, M. A.; Rallabandi, N. C.; Raman, P. K.; Sharma, A.; Godugu, C.; **Shankaraiah, N**. *New J. Chem*., **2025**, *49,* 17716-17729
12. Unravelling the potential of small molecule tumor necrosis factor-α (TNF) inhibitors: A comprehensive review; Chauhan, Y.; Kumawat, A.; Singh, A.; Shankaraiah, N.; Kaki, V. R. *Bioorg. Med. Chem*., **2025**, *130*, 118344
13. Design, synthesis and biological evaluation of spirocyclopropyl oxindole-piperazine/morpholine-based carboxamides as potential anticancer agents; Dastari, S.; Pradhan, S.; Thakur, V.; Reddyrajula, R.; Chilvery, S.; Godugu, C.; **Shankaraiah, N**. *Bioorg. Chem*., **2025**, *163,* 108784
14. Regioselective multi-component approach promoted by *p*-TSA: a facile synthetic access to 3,5-disubstituted 4-pyridinone frameworks; Kumari, P.; Dastari, S.; Singitham, S.; Avvaru, S. J.; **Shankaraiah, N.** *Asian J. Org. Chem.,* **2025**, *14,* e00445
15. Investigation of a Palbociclib and Naringin Co-Amorphous System to Ameliorate Anticancer Potential: Insights on *In Silico* Modeling, Physicochemical Characterization, Ex Vivo Permeation, and In Vitro Efficacy; Kanp, T.; Dhuri, A.; Aalhate, M.; Manoharan, B.; Rode, K.; Munagalasetty, S.; Sarma, A. V. S.; Kshirsagar, P.; Shankaraiah, N.; Bhandari, V.; Sharma, B.; Singh, P. K. *Mol. Pharmaceutics* **2025***, 22,* 2446−2465
16. Design, Synthesis of 1*H*-benzimidazol-2-yl-enaminone Hybrids as Tubulin Polymerization Inhibitors and *In vitro* Cytotoxicity Studies; Dastari, S.; Panda, B.; Rasane, S.; Reddyrajula, R.; Godugu, C.; **Shankaraiah, N**. *Synlett* **2025**, *36,* 2855-2863
17. Carboxylic acids as enabling directing groups in C-H activation and functionalization: A decade review; Gupta, S.; Galla, M. S.; Suhas, K. P.; Shankaraiah, N. *Adv. Synth. Cat*., **2025**, *367,* e202500093
18. Oximes and hydrazones as versatile directing groups: A critical review on recent advances of C-H activation and functionalization; Jha, A.; Dastari, S.; Barve, N. M.; **Shankaraiah, N**. *Tetrahedron* **2025**, *179,* 134634
19. Design and synthesis of β-carboline-benzofuran based hybrids as antibacterial agents against Staphylococcus aureus; Khan, M. A.; Parida, K. K.; Sowmya, D.; Rallabandi, N. C.; Kalia, N. P.; **Shankaraiah, N**. *Bioorg. Med. Chem. Lett.,* **2025**, *123,* 130220
20. Recent developments of benzimidazole based analogs as potential tubulin polymerization inhibitors: a critical review; Reddyrajula, R.; Varshini, K. P.; **Shankaraiah, N**. *Bioorg. Med. Chem. Lett.,* **2025**, *122,* 130167
21. Development of 3-indolyl substituted phenyl pyrazolo-carboxamide hybrids as potential type II VEGFR-2 inhibitors and *in vitro* cytotoxicity studies; Valapil, D. G.; Devabattula, G.; Barahdia, A. S.; Godugu, C., **Shankaraiah, N**. *Bioorg. Med. Chem. Lett.,* **2025**, *117,* 130070

2024

22. Regiospecific synthesis of thioether-linked 3-hydroxyoxindoles from spiro-epoxy oxindoles as cytotoxic and tubulin polymerization inhibitors; Kabra, P.; Sakla, A. P.; Kumar, M.; Sathish, M.; Laxmikeshav, K.; Dandekar, M. P.; **Shankaraiah, N**. *ChemistrySelect* **2024**, *9,* e202404458
23. KSCN-mediated one-pot thiocyanation tandem cyclization of enaminones: a facile access to 2-amino/imino thiazolo fused chromone and coumarin frameworks; Kumawat, A.; Mansuri, S.; Galla, M. S.; **Shankaraiah, N**. *Eur. J. Org. Chem.,* **2024**, *27,* e202400690
24. Microwave-assisted one-pot synthesis of tetrahydro-β-carbolines by Fe(II)-catalyst: utilizing methanol as methylene synthon; Khan, M. A.; Reddyrajula, R.; Sakla, A. P.; Sathish, M.; **Shankaraiah, N**. *Asian J. Org. Chem*., **2024**, *13,* e202400404
25. Design, development of pyrazole-linked spirocyclopropyloxindole-carboxamides as potential cytotoxic agents and selective Type III allosteric VEGFR-2 inhibitors; Valapil, D. G.; Devabattula, G.; Sakla, A. P.; Godugu, C.; **Shankaraiah, N**. *ChemMedChem*., **2024**, *19,* e202400422
26. Development of β-Carboline-Coumarin Based Hybrids as Potential Cytotoxic and Topoisomerase IIα Inhibitors; Khan, M. A.; Sharma, A.; Bora, D.; Sindhuja, R. H.; Phanindranath, R.; Nagesh, N.; **Shankaraiah, N**. *ChemistrySelect* **2024**, *9,* e202401682
27. Pyrrolo[2,3-*d*]pyrimidines as potential kinase inhibitors in cancer drug discovery: a critical review; Madhurya, M. S.; Thakur, V.; Dastari, S.; **Shankaraiah, N**. *Bioorg. Chem*., **2024**, *153,* 107867
28. Development of chromone-thiazolidine-2,4-dione Knoevenagel conjugates as apoptosis inducing agents; Galla, M. S.; Kale, N.; Sharma, A.; Hajre, A.; Godugu, C.; **Shankaraiah, N**. *Bioorg. Med. Chem. Lett.,* **2024**, *109,* 129853
29. Microwave-assisted Ru(II)-catalyzed regioselective methyl acylation of 2-arylbenzoazoles: Synthesis of benzofuran conjugates *via* C−H activation/annulation; Dastari, S.; Murugappan, S.; John, S. E.; **Shankaraiah, N**. *J. Org. Chem*., **2024**, *89,* 7027-7035
30. Development of benzimidazole-substituted spirocyclopropyl oxindole derivatives as cytotoxic agents: tubulin polymerization inhibition and apoptosis inducing studies; Sakla, A. P.; Bazaz, M. R.; Mahale, A.; Sharma, P.; Valapil, D. G.; Kulkarni, O. P.; Dandekar, M. P.; **Shankaraiah, N**. *ChemMedChem*., **2024**, *19,* e202400052
31. Recent insights of PROTAC developments in inflammation-mediated and autoimmune diseases: A critical review; Mishra, P.; Sharma, N.; Galla, M. S.; **Shankaraiah, N**. *RSC Med. Chem*., **2024**, *15,* 2585–2600
32. Rh(III)-catalysed C–H annulation of *cis*-stilbene acids with 2-diazo-1,3-diketones: facile access to 6,7-dihydrobenzofuran-4(5*H*)-one and α-pyrone scaffolds; Galla, M. S.; Kale, N. B.; Kumawat, A.; Bora, D.; **Shankaraiah, N**. *Org. Biomol. Chem*. **2024**, *22,* 3933–3939
33. Hydrazide-hydrazone/hydrazone as enabling linkers in anti-cancer drug discovery: A comprehensive review; Murugappan, S.; Jungare, K.; Dastari, S.; Barve, N. M.; **Shankaraiah, N**. *J. Mol. Str.,* **2024**, *1307*, 138012
34. Spirooxindole derivatives as kinase based anti-cancer agents; Valapil, D. G.; **Shankaraiah, N**. Spirooxindole: Chemistry, Synthesis, Characterization and Biological Significance, Elsevier, **2024**, 1st Edition, ISBN: 978-0-443-22324-2 or ebook ISBN: 9780443223259 (Book Chapter)

2023

35. Benzimidazole derivatives as tubulin polymerization inhibitors: Design, synthesis and *in vitro* cytotoxicity studies; Laxmikeshav, K.; Rahman, Z.; Mahale, Valapil, D. G.; A.; Sharma, P.; George, J.; Phanindranath, R.; Dandekar, M. P.; Kulkarni, O.; Nagesh, N.; **Shankaraiah, N**. *Bioorg. Med. Chem. Lett.,* **2023**, *96,* 129494
36. Ru(II)-catalyzed synthesis of indolo[2,3-*c*]isoquinolines *via* [3+3] annulation of *N,N'*-cyclic azomethine ylides and 3-diazoindolin-2-imines; Valapil, D. G.; Mishra, P.; Jungare, K.; **Shankaraiah, N**. *New. J. Chem.*, **2023**, *47,* 17586-17591
37. A validated high-performance liquid chromatography method for determination of brassinin, an indoleamine 2,3-dioxygenase inhibitor in rat plasma; Dhurjad, P.; Gupta, K.; Sakla, A. P.; Shankaraiah, N.; Sonti, R. *Separation Science Plus* **2023**, *6,* 2300073
38. Sustainable photocatalytic C−H annulation of heteroarenes with sulfoxonium ylides: Synthesis and photophysical properties of fused imidazo[1,2-*a*]pyridine based molecules; Sana, S.; Dannarm, S. R.; Tokala, R.; Dastari, S.; Sathish, M.; Kumar, R.; Sonti, R.; **Shankaraiah, N**. *Org. Chem. Front*., **2023**, *10,* 4800-4808
39. Visible-light-mediated photocatalytic sequential *N*-arylation: An eco-friendly synthetic route to unsymmetrical di-arylamines and imatinib drug; Sana, S.; Dastari, S.; Reddy, D. S.; Tokala, R.; Sathish, M.; Sonti, R.; **Shankaraiah, N**. *Org. Chem. Front*., **2023**, *10,* 4573-4580
40. Reminiscing the Microwave-assisted Chemistry of 5- and 6-membered Benzene-fused *N*-Heterocycles; Soni, J. P.; Valapil, D. G.; Joshi, S. V.; **Shankaraiah, N**. *Arkivoc* **2023**, *(vi)* 202311928
41. Design, synthesis and *in vitro* cytotoxic evaluation of β-carboline tethered quinoline-4-carboxamide conjugates as DNA-interactive Topo II inhibitors; Soni, J. P.; Devi, P.; Chemitikanti, S.; Sharma, A.; Swamy, C. V. D.; Phanindranath, R.; Sathish, M.; Nagesh, N.; Godugu, C.; Shankaraiah, N. *J. Mol. Str.,* **2023**, *1291,* 136001
42. Regioselective synthesis and *in vitro* cytotoxicity evaluation of 3-thiooxindole derivatives: Tubulin polymerization inhibition and apoptosis inducing studies; Sakla, A. P.; Panda, B.; Mahale, A.; Sharma, P.; Laxmikeshav, K.; Khan, M. A.; Kulkarni, O. P.; Godugu, C.; **Shankaraiah, N**. *Bioorg. Med. Chem.,* **2023**, *90,* 117297

43. Niclosamide Inhibits Epithelial-Mesenchymal Transition with Apoptosis Induction in BRAF/ NRAS Mutated Metastatic Melanoma Cells; Thatikonda, S.; Tokala, R.; Pooladanda, V.; **Shankaraiah, N**.; Godugu, C. *Toxicology in Vitro* **2023**, *89,* 105579

44. Trimethylsilyl azide-promoted acid-amine coupling: A facile one-pot route to amides from carboxylic acids and amines; Tangella, Y.; Soni, J. P.; **Shankaraiah, N**.; Abril, D.; Sathish, M. *Arkivoc* **2023**, (*vi*), 202211914

45. Design, synthesis and *in vitro* cytotoxicity evaluation of indolo-pyrazoles grafted with thiazolidinone as tubulin polymerization inhibitors; Soni, J. P.; Chilvery, S.; Sharma, A.; Reddy, G. N.; Godugu, C.; **Shankaraiah, N.** *RSC Med. Chem.,* **2023**, *14,* 549–562

46. Exploration of cytotoxic potential and tubulin polymerization inhibition activity of *cis*-stilbene-1,2,3-triazole congeners; Bora, D.; Samir, K. M.; Sharma, A.; Chilvery, S.; Bansod, S.; John, S. E.; Godugu, C.; **Shankaraiah, N**. *RSC Med. Chem.,* **2023**, *14,* 482–490

47. Synthesis of *cis*-stilbene based 1,2,4-triazole/1,3,4-oxadiazole conjugates as potential cytotoxic and tubulin polymerization inhibitors; John, S. E.; Sharma, A.; Gulati, S.; Bora, D.; **Shankaraiah, N**. *New. J. Chem.,* **2023**, *47,* 4687-4697

48. 1,2,3-Triazolo-2-aryl-linked benzimidazole derivatives as tubulin polymerization inhibitors and DNA intercalators: Design, synthesis, biological evaluation and docking studies; Laxmikeshav, K.; Sayali, M.; Devabattula, G.; Sharma, P.; Mahale, A.; George, J.; Phanindranath, R.; Godugu, C.; Kulkarni, O. P.; Nagesh, N.; **Shankaraiah, N**. *Archiv der Pharmazie* **2023**, *356,* 2200449

49. Synthesis and cytotoxicity evaluation of DNA-interactive β-carboline indolyl-3-glyoxamide derivatives: Topo-II inhibition and *in silico* modelling studies; Soni, J. P.; Reddy, G. N.; Rahman, Z.; Sharma, A.; Spandana, A.; Phanindranath, R.; Dandekar, M. P.; Nagesh, N.; **Shankaraiah, N**. *Bioorg. Chem*., **2023**, *131,* 106313

50. Development of hydrazide hydrazone-tethered combretastatin-oxindole derivatives as antimitotic agents; Bora, D.; Sharma, A.; John, S. E.; **Shankaraiah, N**. *J. Mol. Str.,* **2023**, *1275,* 134675

51. Benzimidazole based bis-carboxamide derivatives as promising cytotoxic agents: Design, synthesis, *in silico* and tubulin polymerization inhibition; Laxmikeshav, K.; Sharma, P.; Palepu, M.; Sharma, P.; Mahale, A.; George, J.; Phanindranath, R.; Dandekar, M. P.; Kulkarni, O. P.; Nagesh, N.; **Shankaraiah, N**. *J. Mol. Str.,* **2023**, *1271*, 134078

2022

52. Rh(III)-catalysed site-selective alkylation of β-carbolines/isoquinolines and tandem C–H/C–N functionalization to construct indolizine-indole frameworks; Bora, D.; John, S. E.; Galla, M. S.; Sathish, M.; **Shankaraiah, N**. *Mol. Cat.,* **2022**, *533,* 112783

53. Synthesis of alpha-pyrones and chromen-2-ones by transition-metal catalyzed annulations of sulfoxonium and iodonium ylides with *cis*-stilbene acids; John, S. E.; Bora, D.; Dastari, S.; Valapil, D. G.; **Shankaraiah, N**. *New J. Chem*., **2022**, *46,* 19722–19730

54. Catalyst-Free Site-Selective Diverse Functionalization of Inherent C–H Bonds in 1-Aryl-β-carbolines, Norharmane and Harmine; Soni, J. P.; Kumawat, A.; Sathish, M.; Yadav, S.; Jadhav, N. A.; **Shankaraiah, N**. *ChemistrySelect* **2022**, *7,* e202202299

55. Ru(II)-Catalyzed regioselective carbene insertion into β-carbolines and isoquinolines; John, S. E.; Bora, D.; **Shankaraiah, N**. *Org. Biomol. Chem*. **2022**, *20,* 5852-5860

56. Design, synthesis of DNA-interactive 4-thiazolidinone-based indolo-/pyrroloazepinone conjugates as potential cytotoxic and topoisomerase I inhibitors; Kadagathur, M.; Patra, S.; Panda, B.; George, J.; Phanindranath, R.; Shaikh, A. S.; Sigalapalli, D. K.; Godugu, C.; Nagesh, N.; Tangellamudi, N. D.; **Shankaraiah, N**. *Eur. J. Med. Chem*., **2022**, *238,* 114465

57. Brown seaweed-derived alginic acid: An efficient and reusable catalyst for Pictet-Spengler reaction to access tetrahydro-β-carboline and tetrahydroisoquinoline frameworks; Soni, J. P.; Sathish, M.; Nachtigall, F. M.; Santos, L. S.; **Shankaraiah, N**. *Asian J. Org. Chem.,* **2022**, *11,* e202200129

58. The Expedition of Azido-reductive Cyclization Approaches towards Various Heterocycles; Soni, J. P.; Jadhav, N.; **Shankaraiah, N.** *Curr. Org. Chem.,* **2022**, *26,* 382-398

59. The syntheses and medicinal attributes of phenanthrenes as anticancer agents: a quinquennial update; Jhingran, S.; Laxmikeshav, K.; Sayali, M.; Rao, K. V.; **Shankaraiah, N**. *Curr. Med. Chem*., **2022**, *29,* 3530–3556

60. Contribution of Knoevenagel Condensation Products toward the Development of Anticancer Agents: An Updated Review; Tokala, R.; Bora, D.; **Shankaraiah, N**. *ChemMedChem*., **2022**, *17,* e202100736

61. Exploration of Mercaptoacetamide-linked Pyrimidine-1,3,4-Oxadiazole Derivatives as DNA Intercalative Topo II inhibitors: Cytotoxicity and Apoptosis Induction; Shaikh, A. S.; Kiranmai, G.; Devi, G. P.; Makhal, P. N.; Sigalapalli, D. K.; Tokala, R.; Kaki, V. R.; **Shankaraiah, N**.; Nagesh, N.; Babu, B. N.; Tangellamudi, N. D. *Bioorg. Med. Chem. Lett.,* **2022**, *65,* 128697

62. Synthesis of indolo/pyrroloazepinone-oxindoles as potential cytotoxic, DNA-intercalating and Topo I inhibitors; Kadagathur, M.; Shaikh, A. S.; Panda, B.; George, J.; Phanindranath, R.; Sigalapalli, D. K.; Godugu, C.; Nagesh, N.; **Shankaraiah, N**.; Tangellamudi, N. D. *Bioorg. Chem*. **2022**, *122,* 105706

63. One-pot, microwave-assisted copper(I)-catalysed dithiocarbamation: facile introduction of dithiocarbamate on imidazopyridines; Laxmikeshav, K.; Sakla, A. P.; Stephy, E. J.; **Shankaraiah, N**. *Green Chem.,* **2022**, *24,* 1259–1269

64. Role of Histone demethylases and histone methyltransferases in triple-negative breast cancer: epigenetic mnemonics; Mandumpala, J. J.; Baby, S.; Tom, A. A.; Godugu, C.; **Shankaraiah, N.** *Life Sciences* **2022**, *292,* 120321

65. Ru(II)-Catalyzed Regioselective C−N Bond Formation on Benzothiazoles Employing Acyl Azide as an Amidating Agent; John, S. E.; Bora, D.; Dhimam, V.; Tokala, R.; Gananadhamu, S.; **Shankaraiah, N**. *ACS Omega* **2022**, *7,* 1299−1310

66. Exploration of benzimidazoles as potential microtubule modulators: An insight in the synthetic and therapeutic evolution; Laxmikeshav, K.; Ambati, H.; **Shankaraiah, N**. *J. Mol. Str*., **2022**, *1253,* 132251

67. Expedition of sulfur-containing heterocyclic derivatives as cytotoxic agents in medicinal chemistry: A decade update; Laxmikeshav, K.; Kumari, P.; **Shankaraiah, N**. *Med. Res. Rev.,* **2022**, *42,* 513-575

2021

68. Dithiocarbamation of spiro-aziridine oxindoles: a facile access to C3-functionalised 3-thiooxindoles as apoptosis inducing agents; Sakla, A. P.; Panda, B.; Laxmikeshav, K.; Soni, J. P.; Bhandari, S.; Godugu, C.; **Shankaraiah, N**. *Org. Biomol. Chem.,* **2021**, *19,* 10622–10634

69. Recent updates on azido-reductive cyclization approaches: syntheses of *aza*-heterocyclic frameworks; Soni, J. P.; Kadagathur, M.; **Shankaraiah, N**. *Asian J. Org. Chem.,* **2021**, *10,* 3186-3200

70. Regioselective *ortho*-sulphonamidation of β-carbolines: intrinsic directing property of β-carbolines and their photophysical studies; Bora, D.; Dannarm, S. R.; John, S. E.; Sana, S.; Sonti, R.; **Shankaraiah, N**. *Asian J. Org. Chem.,* **2021**, *10,* 3384-3389

71. β-Carboline tethered cinnamoyl 2-aminobenzamides as class I selective HDAC inhibitors: Design, synthesis, antiproliferative activity and modelling studies; Namballa, H. K.; Anchi, P.; Manasa, K. L.; Soni, J. P.; Godugu, C.; **Shankaraiah, N**.; Kamal, A. *Bioorg. Chem*. **2021**, *117*, 105461

72. Targeting Tubulin Polymerization and DNA Binding of 4-Thiazolidinone-umbelliferone Hybrids: Synthesis and Cytotoxicity Evaluation; Sigalapalli, D. K.; Kiranmai, G.; Tokala, R.; Tripura, C.; Ambatwar, R.; Nunewar, S. N.; Kadagathur, M.; **Shankaraiah, N**.; Nagesh, N.; Babu, B. N.; Tangellamudi, N. D. *New J. Chem.,* **2021**, *45,* 18908-18923

73. Stereoselective Aldol and Conjugate Addition Reactions Mediated by Proline-Based Catalysts and Its Analogues: A Concise Review; G. V. Durgesh.; Kadagathur, M.; **Shankaraiah, N**. *Eur. J. Org. Chem*., **2021**, *37,* 5288-5311

74. An update on the progress of cycloaddition reactions of 3-methyleneindolinones in the past decade: versatile approaches to spirooxindoles; Saeed, R.; Sakla, A. P.; **Shankaraiah, N**. *Org. Biomol. Chem.,* **2021**, *19,* 7768–7791

75. Unraveling KDM4 histone demethylase inhibitors for cancer therapy; Baby, S.; Durgesh, G. V.; **Shankaraiah, N**. *Drug Discovery Today* **2021**, *26,* 1841-1856

76. Expedition to Phenanthrene Nucleus: A Two-decade Research on Bench; John, S. E.; Tokala, R.; Kaki, V. R.; **Shankaraiah, N**. *Asian J. Org. Chem.,* **2021**, *10,* 2105-2136

77. Exploration of C-H activation strategies in construction of functionalized 2-aryl benzoazoles: a decisive review; Sunny, S.; John, S. E.; **Shankaraiah, N**. *Asian J. Org. Chem.,* **2021**, *10,* 1986-2009

78. Recent Advances in Multi-component Reactions and their Mechanistic Insights: A Triennium Review; John, S.; Gulati, S.; **Shankaraiah, N**. *Org. Chem. Front*., **2021**, *8,* 4237–4287

79. The Role of Sulphonamides and N-Sulphonyl Ketimines/Aldimines as Directing Groups in the Field of C-H Activation; Bora, D.; Galla, M. S.; **Shankaraiah, N**. *Chem. Asian J.* **2021**, *16,* 1661–1684

80. Synthesis and biological evaluation of novel imidazo[1,2-*a*]pyridine-oxadiazole hybrids as anti-proliferative agents: Study of microtubule polymerization inhibition and DNA binding; Sigalapalli, D. K.; Kiranmai, G.; Devi, G. P.; Tokala, R.; Sana, S.; Tripura, C.; Jadhav, G. S.; Kadagathur, M.; **Shankaraiah, N**.; Nagesh, N.; Babu, B. N.; Tangellamudi, N. D. *Bioorg. Med. Chem*., **2021**, *43,* 116277

81. β-Carboline Based Molecular Hybrids as Anticancer Agents: A Brief Sketch; Soni, J. P.; Yeole. Y.; **Shankaraiah. N**. *RSC Med. Chem*. **2021**, *12,* 730–750

82. Application of transition metal-catalyzed C-H activation strategies in the synthesis and functionalization of β-carbolines; Riyazahmed, K. S.; Bora, D.; **Shankaraiah, N**. *Asian J. Org. Chem.,* **2021**, *10,* 1050–1066

83. TCCA-mediated oxidative rearrangement of tetrahydro-β-carbolines: facile access to spirooxindoles and the total synthesis of (±)-coerulescine and (±)-horsfiline; Sathish, M.; Sakla, A. P.; Nachtigall, F. M.; Santos, L. S.; **Shankaraiah, N**. *RSC Adv.,* **2021**, *11*, 16537

84. Microwave-assisted multicomponent reactions in heterocyclic chemistry and mechanistic aspects; Gulati, S.; John, S. E.; **Shankaraiah, N.** *Beilstein J. Org. Chem*., **2021**, *17*, 819–865

85. Cyclodesulfurization: An Enabling Protocol for Synthesis of Various Heterocycles; Kadagathur, M.; Shaikh, A. S.; Jadhav, G.; Sigalapalli, D. K.; **Shankaraiah, N**.; Tangellamudi, N.D. *ChemistrySelect* **2021**, *6,* 2621-2640

86. Synthesis and *in vitro* Cytotoxicity Evaluation of Phenanthrene Linked 2, 4-Thiazolidinediones as Potential Anticancer Agents; Yadav, U.; Vanjari, Y.; Laxmikeshav, K.; Tokala, R.; Niggula, P. K.; Kumar, M.; Talla, V.; Kamal, A.; **Shankaraiah, N**. *Anti-cancer Agents in Med. Chem.,* **2021**, *21*, 1127–1140

87. The Riveting Chemistry of Poly-Aza-Heterocycles Employing Microwave Technique: A Decade Review; Soni, J. P.; Joshi, S. V.; Chemitikanti, K. S.; **Shankaraiah, N**. *Eur. J. Org. Chem*., **2021**, 1476-1490

88. Structural Insights of Oxindole based Kinase Inhibitors as Anticancer Agents: Recent Advances; Dhokne, P.; Sakla, A. P.; **Shankaraiah. N**. *Eur. J. Med. Chem*. **2021**, *216,* 113334

89. Microwave-assisted oxidation reactions; Tokala, R.; **Shankaraiah, N**. Green Sustainable Process for Chemical and Environmental Engineering and Science, Elsevier, **2021**, 285-313 (Book Chapter)

90. Cinnamide Derived Pyrimidine-Benzimidazole Hybrids as Tubulin Inhibitors: Synthesis, *In silico* and Cell Growth Inhibition Studies; Sana, S.; Reddy, V. G.; Reddy, T. S.; Tokala, R.; Bhargava, S. K.; **Shankaraiah, N**. *Bioorg. Chem*. **2021**, *110,* 104765

91. Anticancer potential of spirocompounds in medicinal chemistry: A pentennial expedition; Bora, D.; Kushal, A. **Shankaraiah, N**. *Eur. J. Med. Chem*. **2021**, *215,* 113263

92. Synthesis and medicinal chemistry of azepinoindolones: A look back to leap forward; Kadagathur, M.; Patra, S.; Sigalapalli, D. K.; **Shankaraiah, N**.; Tangellamudi, N. D. *Org. Biomol. Chem.,* **2021**, *19,* 738–764

93. Syntheses and applications of spirocyclopropyl oxindoles: A decade review; Sakla, A. P.; Kansal, P.; **Shankaraiah, N.** *Eur. J. Org. Chem.,* **2021**, 757-772

94. Development of β-Carboline-Benzothiazole Congeners *via* Carboxamide Formation as Cytotoxic Agents: Intercalative Topoisomerase IIα Inhibition and Apoptosis Induction; Tokala, R.; Mahajan, S.; Kiranmai, G.; Sigalapalli, D. K.; Sana, S.; John, S. E.; Nagesh, N.; **Shankaraiah, N**.; *Bioorg. Chem*. **2021**, *106,* 104481

2020

95. Microwave-assisted syntheses and applications of non-fused single-nitrogen-containing heterocycles; Soni, J. P.; Chemitikanti, K. S.; Joshi, V. S.; **Shankaraiah, N**. *Org. Biomol. Chem.,* **2020**, *18,* 9737–9761

96. Base-mediated 1,3-dipolar cycloaddition of pyridinium bromides with bromoallyl sulfones: a facile access to indolizine scaffolds; Jadala, C.; Reddy, V. G.; Krishna, N. H.; **Shankaraiah, N.;** Kamal, A. *Org. Biomol. Chem.,* **2020**, *18,* 8694-8701

97. Syntheses and reactivity of spiro-epoxy/aziridine oxindole cores: developments in the past decade; Sakla, A. P.; Kansal, P.; **Shankaraiah, N.** *Org. Biomol. Chem.,* **2020**, *18,* 8572–8596

98. Design and synthesis of thiadiazolo-carboxamide bridged β-carboline-indole hybrids: DNA intercalative topo-IIα inhibition with promising antiproliferative activity; Tokala, R.; Sana, S.; Lakshmia, U. J.; Sankarana, P.; Sigalapalli, D. K.; Gadewal, N.; Kode, J.; **Shankaraiah, N.** *Bioorg. Chem*. **2020**, *105*, 104357

99. An Insight into Medicinal Attributes of Dithiocarbamates: Bird's Eye View; Shinde, S. D.; Sakla, A. P. **Shankaraiah, N.** *Bioorg. Chem*. **2020**, *105,* 104346

100. Synthesis and biological evaluation of substituted N-(2-(1*H*-benzo[d]imidazol-2-yl)phenyl)cinnamides as tubulin polymerization inhibitors; Donthiboina, K.; Anchi, P.; Gurram, S.; Mani, G. S.; Uppu, J. L.; Godugu, C.; **Shankaraiah, N.;** Kamal, A. *Bioorg. Chem*. **2020**, *103,* 104191

101. Microwave-Assisted Oxidation Reactions; Green Sustainable Process for Chemical and Environmental Engineering and Science; Tokala, R.; **Shankaraiah, N.** Book Chapter (Elsevier), **2020**, 285-313

102. Synthesis of (*Z*)-3-(arylamino)-1-(3-phenylimidazo[1,5-*a*]pyridin-1-yl)prop-2-en-1-ones as potential cytotoxic agents; Mani, G. S.; Anchi, P.; Sunkari, S.; Donthiboina, K.; Godugu, C.; **Shankaraiah, N**.; Kamal, A. *Bioorg. Med. Chem. Lett.,* **2020**, *30,* 127432

103. Microwave-assisted Regioselective Friedel-Crafts Arylation by $BF_3.OEt_2$: A Facile Synthetic access to 3-Substituted-3-Propargyl Oxindole Scaffolds; Laxmikeshav, K.; Sakla, A. P. Rasane, S.; John, S. E.; **Shankaraiah, N**. *ChemistrySelect* **2020**, *5,* 7004–7012

104. Exploration of Carbamide Derived Pyrimidine-Thioindole Conjugates as Potential VEGFR-2 Inhibitors with Anti-Angiogenesis Effect; Sana, S.; Reddy, V. G.; Bhandari, S.; Reddy, T. S.; Tokala, R.; Sakla, A. P.; Bhargava, S. K.; **Shankaraiah, N.** *Eur. J. Med. Chem*. **2020**, *200*, 112457

105. Lewis acid-catalyzed dehydrative [3+2] cycloaddition reaction: A facile synthetic approach to spiro-benzoindoline oxindoles; Bhandari, S.; Kulkarni, N.; Sakla, A. P.; **Shankaraiah, N**. *Tetrahedron Lett*., **2020**, *61, 152007*

106. Ring-Opening Cyclization of Activated Spiro-aziridine Oxindoles with Heteroarenes: A Facile Synthetic Approach to Spiro-oxindole Fused Pyrroloindolines; Bhandari, S.; Sana, S.; **Shankaraiah, N**. *RSC Advances* **2020**, *10,* 16101–16109

107. Reliability of Click Chemistry on Drug Discovery: A Personal Account; **Shankaraiah, N**.; Sakla, A. P.; Laxmikeshav, K.; Tokala, R. *Chem. Record* **2020**, *20,* 253-272

108. β-Carboline directed regioselective hydroxylation by employing $Cu(OAc)_2$ and mechanistic investigation by ESI-MS; Bora, D.; Tokala, R.; John, S. E.; Prasanth, B**.; Shankaraiah, N.** *Org. Biomol. Chem.,* **2020**, *18,* 2307–2311

109. Design and Synthesis of 5-Morpholino-Thiophene-Indole/Oxindole Hybrids as Cytotoxic Agents; Yadav, U.; Sakla, A. P.; Tokala, R.; Nyalam, S. T.; Khurana, A.; Digwal, C. S.; Talla, V.; Godugu, C.; **Shankaraiah, N**.; Kamal, A. *ChemistrySelect* **2020**, *5,* 4356–4363

110. Iodine-mediated oxidative annulation by C═C cleavage: A domino synthetic approach to quinazolinones and benzimidazo[1,2-*c*]quinazolines; Donthiboina, K.; Mani, G. S.; **Shankaraiah, N**.; Kamal, A. *ChemistrySelect* **2020**, *5,* 3923 –3928

111. $FeCl_3$-Catalyzed Domino Reaction: A Mild Synthetic Approach to Spirooxindolo-2-iminothiazolidine Scaffolds; Bhandari, S.; Sakla, A. P.; **Shankaraiah, N**. *ChemistrySelect* **2020**, *5*, 2886–2891.

2019

112. Synthesis of combretastatin-A4 carboxamides mimicking with sulfonyl piperazines by a molecular hybridization approach: *In vitro* cytotoxicity evaluation and tubulin polymerization inhibition; Jadala, C.; Satish, M.; Anchi, P.; Tokala, R.; Lakshmi, U. J.; Reddy, V. G.; **Shankaraiah, N**.; Godugu, C.; Kamal, A. *ChemMedChem* **2019**, *14,* 2052–2060

113. Iodine-promoted one-pot synthesis of 1,3,4-oxadiazole scaffolds *via* sp^3 C-H functionalization of azaarenes; Mani, G. S.; Donthiboina, K.; **Shankaraiah, N**.; Kamal, A. *New J. Chem.* **2019**, *43,* 15999–16006

114. Diverse targeted approaches to battle multidrug resistance in cancer; **Shankaraiah, N**.; Nekkanti, S.; Ommi, O.; Soukya P. S. L. *Curr. Med. Chem.* **2019**, *26,* 7059–7080

115. Design and Synthesis of Substituted Dihydropyrimidinone Derivatives as Cytotoxic and Tubulin Polymerization Inhibitors; Sana, S.; Tokala, R.; Bajaj, D. M.; Bokara, K. K.; Kiranmai, G.; Lakshmi, U. J.; Vadlamani, S.; Nagesh, N.; Talla, V.; **Shankaraiah, N**. *Bioorg. Chem.* **2019**, *93,* 103317

116. Transition metal free one-pot synthesis of substituted pyrroles by employing aza-Wittig reaction; Jadala, C.; Prasad, B.; Prashanti, A.V. G.; **Shankaraiah, N**.; Kamal. A. *RSC Advances* **2019**, *9,* 30659–30665

117. Iodine-mediated C-N and N-N bond formation: A facile one-pot synthetic approach to 1,2,3-triazoles under metal-free and azide-free conditions; Mani, G. S.; Kavitha, D.; Shaik, S. P.; **Shankaraiah, N**.; Kamal, A. *RSC Advances* **2019**, *9,* 27021–27031

118. Synthesis and *in vitro* cytotoxicity evaluation of β-carboline-combretastatin carboxamides as apoptosis inducing agents: DNA intercalation and topoisomerase-II inhibition; Jadala, C.; Satish, M.; Reddy, T. S.; Reddy, V. G.; Tokala, R.; Bhargava, S. K.; **Shankaraiah, N**.; Nagesh, N.; Kamal, A. *Bioorg. Med. Chem*. **2019**, *27*, 3285–3298

119. Ru(II)-catalyzed regioselective hydroxymethylation of β-carbolines and isoquinolines *via* C-H functionalization: Probing the mechanism by online ESI-MS/MS screening; Tokala, R.; Bora, D.; Sana, S.; Nachtigall, F. M.; Santos, L. S.; **Shankaraiah, N.** *J. Org. Chem.* **2019**, *84,* 5504−5513

120. Microwave-Assisted One-Pot [3+2] Cycloaddition of Azomethine Ylides and 3-Alkenyl Oxindoles: A Facile Approach to Pyrrolidine-Fused Bis-Spirooxindoles; Bhandari, S.; Sana, S.; Sridhar, B.; **Shankaraiah, N**. *ChemistrySelect* **2019**, *4*, 1727–1730

121. Synthesis of New 1,2,3-Triazolo-naphthalimide/phthalimide Conjugates *via* 'Click' Reaction: DNA Intercalation and Cytotoxic Studies; **Shankaraiah, N**.; Kumar, N. P.; Tokala, R.; Gayatri, B. S.; Talla, V.; Santos, L. S. *J. Braz. Chem. Soc*., **2019**, *3,* 454–461

122. Design and synthesis of DNA-intercalative naphthalimide-benzothiazole/cinnamide derivatives: Cytotoxicity evaluation and topoisomerase IIα inhibition; Rao, N. S.; Nagesh, N.; Nayak, V. L.; Sunkari, S.; Tokala, R.; **Shankaraiah, N**.; Kamal, A. *MedChemComm* **2019**, *10*, 72–79

123. Synthesis of substituted biphenyl methylene indolinones as apoptosis inducers and tubulin polymerization inhibitors; Donthiboina, K.; Pratibha, A.; Ramya, P. V. S.; Karri, S.; Srinivasulu, G.; Godugu, C.; **Shankaraiah, N**.; Kamal, A. *Bioorg. Chem*. **2019**, *86*, 210–223

2018

124. Synthesis of enamino-2-oxindoles *via* conjugate addition between α-azido ketones and 3-alkenyl oxindoles: Cytotoxicity evaluation and apoptosis inducing studies; Kumar, N. P.; Sharma, P.; Vanjari, Y.; Sridhar, B.; Kamal, A.; **Shankaraiah, N**. *Bioorg. Med. Chem. Lett.,* **2018**, *28*, 3564–3573

125. Synthesis and *in vitro* cytotoxicity evaluation of β-carboline-linked 2,4-thiazolidinedione hybrids: Potential DNA intercalation and apoptosis inducing studies; Tokala, R.; Thatikonda, S.; Sana, S.; Godugu, C.; **Shankaraiah, N**. *New J. Chem.* **2018**, *42,* 16226–16236

126. Molecular iodine-catalyzed oxidative C(Sp^2)-C(alkyl) bond cleavage of aryl/heteroaryl alkyl ketones: An efficient strategy to access fused polyheterocycles; Mani, G. S.; Rao, A. V. S.; Tangella, Y.; Sunkari, S.; Sultana, F.; Namballa, H. K.; **Shankaraiah, N**.; Kamal, A. *New J. Chem.* **2018**, *42,* 15820–15829

127. Design, synthesis and cytotoxicity evaluation of β-carboline-linked oxindole hybrids: DNA intercalation and apoptosis inducing studies; Tokala, R.; Thatikonda, S.; Vanteddu, U. S.; Godugu, C.; **Shankaraiah, N**. *ChemMedChem* **2018**, *13,* 1909–1922

128. Synthesis of DNA interactive C3-*trans*-cinnamide linked β-carboline conjugates as potential cytotoxic and DNA topoisomerase I inhibitors; Sathish, M.; Dushantrao, S. C.; Nekkanti, S.; Tokala, R.; Thatikonda, S.; Tangella, Y.; Srinivas, G.; Cherukommu, S.; Krishna, N. H.; **Shankaraiah, N**.; Nagesh, N.; Kamal; A. *Bioorg. Med. Chem*. **2018**, *26*, 4916–4929

129. H_2O-Mediated epoxide ring-opening with concomitant C–S bond formation: A one-pot method to 3-hydroxy-oxindolino-dithiocarbamates as cytotoxic agents; Bhandari, S.; Katore, A. R.; Bajaj, D. M.; Sharma, P.; Talla, V.; **Shankaraiah, N**. *ChemistrySelect* **2018**, *3,* 6766–6774

130. Thiazolidinedione-vinyl benzimidazole derivatives as anticancer agents; **Shankaraiah, N**.; Sharma, P.; Reddy, T. S.; Kumar, N. P.; Senwar, K. R.; Bhargava, S. K. **Indian Patent (2018)**, Appl. No. 201641035739A

131. Synthesis of 1,2,4-triazolo-linked urea/thiourea conjugates as cytotoxic and apoptosis inducing agents; Tokala, R.; Bale, S.; Janrao, I. P.; Vennela, A.; Kumar, N. P.; Senwar, K. R.; Godugu, C.; **Shankaraiah, N**. *Bioorg. Med. Chem. Lett.,* **2018**, *28,* 1919–1924

132. Microwave-assisted one-pot synthesis of new phenanthrene fused-tetrahydrodibenzo-acridinones as potential cytotoxic and apoptosis inducing agents; Kumar, N. P.; Sharma, P.; Reddy, T. S.; **Shankaraiah, N**.; Bhargava, S. K.; Kamal, A. *Eur. J. Med. Chem*. **2018**, *151*, 173–185

133. Sulfamic acid promoted one-pot synthesis of phenanthrene fuseddihydrodibenzo-quinolinones: Anticancer activity, tubulin polymerization inhibition and apoptosis inducing studies; Kumar, N. P.; Kumari, S. S.; Lakshmi, U. J.; Tokala, R.; **Shankaraiah, N**.; Kamal, A. *Bioorg. Med. Chem*. **2018**, *26*, 1996–2008

134. Iodine promoted dual oxidative C (SP^3)–H amination of 2-methyl-3-aryl quinazolin-4(3*H*)-ones: A facile route to 1,4-diarylimidazo [1,5-*a*]quinazoline-5(4*H*)-ones; Donthiboina, K.; Krishna, N. H.; Shaik, S. P.; Nanubolu, J. B.; **Shankaraiah, N**.; Kamal, A. *Org. Biomol. Chem.,* **2018**, *16*, 1720–1727

135. Synthesis of podophyllotoxin linked β-carboline congeners as potential anticancer agents and DNA topoisomerase II inhibitors; Sathish, M.; Kavitha, B.; Nayak, V. L.; Tangella, Y.; Ajitha, A.; Nekkanti, S.; Alarifi, A.; **Shankaraiah, N**.; Nagesh, N.; Kamal, A. *Eur. J. Med. Chem*. **2018**, *144*, 557–571

2017

136. Polymer-supported (–)-8-phenylmenthyl auxiliary as an effective solid-phase chiral inductor in the addition of nucleophiles to *N*-acyliminium ions; Forero-Doriaa, O.; Santos, L. S.; Nachtigall, F. M.; **Shankaraiah, N**. *Comb. Chem. & High Throughput Screening*, **2017**, *20*, 696–702

137. Targeting DNA minor groove by hybrid molecules as anticancer agents; Nekkanti, S.; Tokala, R.; **Shankaraiah, N**. *Curr. Med. Chem.* **2017**, *24,* 2887–2907 (**Review Article**)

138. Synthesis of substituted phenanthrene-9-benzimidazole conjugates: Cytotoxicity evaluation and apoptosis inducing studies; Kumar, N. P.; Sharma, P.; Kumari, S. S.; Brahma, U.; Nekkanti, S.; **Shankaraiah, N**.; Kamal, A. *Eur. J. Med. Chem*. **2017**, *140,* 128–140

139. Synthesis of 1,2,3-triazolo-fused-tetrahydro-β-carboline derivatives *via* 1,3-dipolar cycloaddition reaction: Cytotoxicity evaluation and DNA-binding studies; Nekkanti, S.; Pooladanda, V.; Veldandi, M.; Tokala, R.; Godugu, C.; **Shankaraiah, N**. *Chemistry Select* **2017**, *2,* 7210–7221

140. Synthesis of different heterocycles-linked chalcone conjugates as cytotoxic agents and tubulin polymerization inhibitors; **Shankaraiah, N**.; Nekkanti, S.; Brahma, U. R.; Kumar, N. P.; Deshpande, N.; Prasanna, D.; Senwar, K. R.; Lakshmi, U. J. *Bioorg. Med. Chem*. **2017**, *25*, 4805–4816

141. Conventional and microwave-assisted synthesis of new 1*H*-benzimidazole-thiazolidinedione derivatives: A potential anticancer scaffold; Sharma, P.; Reddy, T. S.; Senwar, K. R.; Kumar, N. P.; Bhargava, S. K.; **Shankaraiah, N**. *Eur. J. Med. Chem*. **2017**, *138*, 234–245

142. Design and synthesis of 1,2,3-triazolo-phenanthrene hybrids as cytotoxic agents; Kumar, N. P.; Nekkanti, S.; Kumari, S. S.; Sharma, P.; **Shankaraiah, N**.; *Bioorg. Med. Chem. Lett.* **2017**, *27*, 2369–2376

143. Future of Drug Discovery; Ahmed Kamal, Shalini Nekkanti, **Nagula Shankaraiah**, Satish Manda. Drug Resistance in Bacteria, Fungi, Malaria, and Cancer; *Springer International Publishing*, **2017**, 609–629 (Book Chapter)

144. Benzylideneindolinones Useful as Anticancer Agents and Process of Preparing the Same; **Shankaraiah, N**; Senwar, K. R.; Sharma, P.; Thummuri, D.; Naidu, V.G.M. **Indian Patent (2017)**, Appl. No. 7129/CHE/2015A

145. Synthesis of *N*-((1-pheny1-9*H*-pyrido[3,4-*b*]indo1-3-y1)methy1)cinnamamides as potential anticancer agents; Kamal, A.; Sathish, M.; Nagesh, N.; **Shankaraiah, N**.; Dushantrao, S. C.; Krishna, N. H. **Indian Patent (2017)**, Appl. No. PCT/IN2017/050031 (WO2017/125952)

146. Effect of Sulfamic Acid on 1,3-Dipolar Cycloaddition Reaction: Mechanistic Studies and Synthesis of 4-Aryl-*NH*-1,2,3-triazoles from Nitroolefins; Sharma, P.; Kumar, N. P.; Senwar, K. R.; Forero-Doria, O.; Nachtigall, F. M.; Santos, L. S.; **Shankaraiah, N**. *J. Braz. Chem. Soc*., **2017**, *28,* 589–597

147. Synthesis of 2,3,6,7-tetramethoxyphenanthren-9-amine: An efficient precursor to access new 4-aza-2,3-dihydropyridophenanthrenes as apoptosis inducing agents; Kumar, N. P.; Sharma, P.; Reddy, T. S.; Nekkanti, S.; **Shankaraiah, N**.; Lalita, G.; Sujanakumari, S.; Bhargava, S. K.; Naidu, V. G. M.; Kamal, A. *Eur. J. Med. Chem*. **2017**, *127,* 305–317

2016

148. A Recyclable and Water Soluble Copper(I)-Catalyst: One-pot Synthesis of 1,4-Disubstituted 1,2,3-Triazoles and their Biological Evaluation; Nekkanti, S.; Veeramani, K.; Kumari, S. S.; Shankaraiah, N. *RSC Adv.* **2016**, *6,* 103556–103566

149. Anticancer Agent and Process for the Preparation Thereof; Kamal, A.; Reddy, T. S.; Srinivasulu, V.; Subbarao, A. V.; **Shankaraiah, N**.; Vishnuvardhan, M. V. P. S. *US Patent* **2016**, US 9,522,907 B2

150. Silver(I)-catalysed domino alkyne-annulation/Diels–Alder reaction: a mild synthetic approach to tetrahydrospiro[carbazole-4,3'-indoline] scaffolds; Sharma, P.; Kumar, N. P.; Krishna, N. H.; Prasanna, D.; **Shankaraiah, N**. *Org. Chem. Front.,* **2016**, *3,* 1503–1508

151. Synthesis and biological evaluation of new benzimidazole-thiazolidinedione hybrids as potential cytotoxic and apoptosis inducing agents; Sharma, P.; Reddy, T. S.; Thummuri, D.; Senwar, K. R.; Naidu, V. G. M.; Bhargava, S. K.; **Shankaraiah, N**. *Eur. J. Med. Chem*. **2016**, *124,* 608–621

152. Design and synthesis of substituted 4'-*O*-alkylamino-tethered-benzylideneindolin-2-ones as potent anticancer and apoptosis inducing agents; Senwar, K. R.; Reddy, T. S.; Sharma, P.; Thummuri, D.; Bhargava, S. K.; Naidu, V.G.M.; **Shankaraiah, N**. *Bioorg. Med. Chem. Lett*. **2016**, *26*, 4061–4069

153. New (*E*)-1-alkyl-1*H*-benzo[*d*]imidazol-2-yl)methylene)indolin-2-ones: Synthesis, *in vitro* cytotoxicity evaluation and apoptosis inducing studies; Sharma, P.; Thummuri, D.; Reddy, T. S.; Senwar, K. R.; Naidu, V. G. M.; Srinivasulu, G.; Bhargava, S. K.; **Shankaraiah, N**. *Eur. J. Med. Chem*. **2016**, *122*, 584–600

154. Microwave-assisted direct oxidative synthesis of α-ketoamides from aryl methyl ketones and amines by a water soluble Cu(I)-complex; Nekkanti, S.; Veeramani, K.; Kumar, N. P.; **Shankaraiah, N**. *Green Chem.,* **2016**, *18*, 3439–3447

155. Design, synthesis and apoptosis inducing novel (*Z*)-3-(3'-methoxy-4'-(2-amino-2-oxoethoxy)-benzylidene)indolin-2-ones as potential cytotoxic agents; Senwar, K. R.; Sharma, P.; Reddy, T. S.; Thummuri, D.; Naidu, V.G.M.; **Shankaraiah, N**. *Eur. J. Med. Chem*. **2016**, *118*, 34–46

156. Synthesis of Novel C3-Linked β-Carboline-Pyridine Derivatives Employing Khronke Reaction: DNA-binding Ability and Molecular Modeling Studies; **Shankaraiah, N**.; Sharma, P.; Pedapati, S.; Nekkanti, S.; Srinivasulu, V.; Kumar, N. P.; Kamal, A. *Lett. in Drug Design & Discovery* **2016**, *13*, 335–342

157. Silver-Catalyzed Domino Aza-Annulation/Diels-Alder Cyclization of 2-ene-yne Anilines: A Facile One-Pot Access to Carbazole, Dihydrocarbazole and Tetrahydrocarbazole Frameworks; Krishna, N. H.; Saraswati, A. P.; Sathish, M.; **Shankaraiah, N**.; Kamal, A. *Chem. Comm.* **2016**, *52,* 4581–4584

158. Iron-Mediated Concise One-Pot Synthesis of 3,5-Diarylpyridines from β-Nitrostyrenes; Sathish, M.; Chetna, J.; Krishna, N. H.; **Shankaraiah, N**.; Alarifi, A.; Kamal, A. *J. Org. Chem*. **2016**, *81*, 2159–2165

159. TBAI/TBHP-Catalyzed [3+2]cycloaddition/oxidation/aromatization cascade and online ESI-MS mechanistic studies: Synthesis of pyrrolo[2,1-*a*]isoquinolines and indolizino[8,7-*b*]indoles; Nekkanti, S.; Kumar, N. P.; Sharma, P.; Kamal, A.; Nachtigall, F. M.; Forero-Doria, O.; Santos, L. S.; **Shankaraiah, N**. *RSC Adv.* **2016**, *6*, 2671–2677

160. Design and synthesis of C3-tethered 1,2,3-triazolo-β-carboline derivatives: Anticancer activity, DNA-binding ability, viscosity and molecular modeling studies; **Shankaraiah, N**.; Jadala, C.; Nekkanti, S.; Senwar, K. R.; Nagesh, N.; Shrivastava, S.; Naidu, V. G. M.; Sathish, M.; Kamal, A. *Bioorg. Chem*. **2016**, *64*, 42–50

2015

161. An efficient one-pot oxidative decarboxylation tandem aromatization of tetrahydro-β-carbolines by using N-chlorosuccinimide: Total synthesis of norharmane, harmane and eudistomins; Kamal, A.; Sathish, M.; Prasanthi, A. V. G.; Chetna, J.; Tangella, Y.; Srinivasulu, V.; **Shankaraiah, N**.; Alarifi, A. *RSC Adv.* **2015**, *5*, 90121–90126

162. H_2O-Mediated isatin *spiro*-epoxide ring opening with NaCN: Synthesis of novel 3-tetrazolylmethyl-3-hydroxy-oxindole hybrids and their anticancer evaluation; Sharma, P.; Senwar, K. R.; Jeengar, M. K.; Reddy, T. S.; Naidu, V. G. M.; Kamal, A.; **Shankaraiah, N**. *Eur. J. Med. Chem*. **2015**, *104*, 11–24

163. Novel podophyllotoxin-thiourea congeners as DNA topoisomerase-II inhibition and apoptosis inducing agents: Synthesis, anticancer activity and molecular modeling studies; **Shankaraiah, N**.; Kumar, N. P.; Amula, S. B.; Nekkanti, S.; Jeengar, M. K.; Naidu, V. G. M.; Reddy, T. S.; Kamal, A. *Bioorg. Med. Chem*. *Lett*. **2015**, *25*, 4239–4244

164. Design and synthesis of dithiocarbamate linked β-carboline derivatives: DNA topoisomerase II inhibition with DNA binding and apoptosis inducing ability; Kamal, A.; Sathish, M.; Nayak, V. L.; Srinivasulu, V.; Kavitha, B.; Tangella, Y.; Thummuri, D.; Bagul, C.; **Shankaraiah, N**.; Nagesh, N. *Bioorg. Med. Chem*. **2015**, *23*, 5511–5526

165. Spirooxindole-derived morpholine-fused-1,2,3-triazoles: Design, synthesis, cytotoxicity and apoptosis inducing studies; Senwar, K. R.; Sharma, P.; Reddy, T. S.; Jeengar, M. K.; Nayak, V. L.; Naidu, V. G. M.; Kamal, A. **Shankaraiah, N**. *Eur. J. Med. Chem*. **2015**, *102*, 413–424

166. Synthesis of 2-aryl-1,2,4-oxadiazolo-benzimidazoles: Tubulin polymerization inhibitors and apoptosis inducing agents; Kamal, A.; Reddy, T. S.; Vishnuvardhan, M. V. P. S.; Nimbarte, V. K.; Rao, A. V. S.; Srinivasulu, V.; **Shankaraiah, N**. *Bioorg. Med. Chem*. **2015**, *23*, 4608–4623

167. A one-pot 'click' reaction from spiro-epoxides catalyzed by Cu(I)-pyrrolidinyl-oxazole-carboxamide; Senwar, K. R.; Sharma, P.; Nekkanti, S.; Sathish, M.; Kamal, A.; Sridhar, B.; **Shankaraiah, N**. *New. J. Chem.* **2015**, *39*, 3973–3981

168. DNA-binding affinity and anticancer activity of β-carboline–chalcone conjugates as potential DNA intercalators: Molecular modelling and synthesis; **Shankaraiah, N**.; Siraj, K. P.; Nekkanti, S.; Srinivasulu, V.; Satish, M.; Sharma, P.; Senwar, K. R.; Vishnuvardhan, M. V. P. S.; Ramakrishna, S.; Kamal, A. *Bioorg. Chem.* **2015**, *59*, 130–139

169. Dithiocarbamate/Piperazine Bridged Pyrrolobenzodiazepines as DNA-minor Groove Binders: Synthesis, DNA-Binding Affinity and Cytotoxic Activity; Kamal, A.; Sreekanth, K.; **Shankaraiah, N**.; Sathish, M.; Nekkanti, S.; Srinivasulu, V. *Bioorg. Chem.* **2015**, *59*, 23–30

2014

170. Design, Synthesis and Anticancer Evaluation of Tetrahydro-β-Carboline-hydantoin Hybrids; **Shankaraiah, N**.; Nekkanti, S.; Chudasama, K. J.; Senwar, K. R.; Sharma, P.; Jeengar, M. K.; Naidu, V. G. M.; Srinivasulu, V.; Kamal, A. *Bioorg. Med. Chem. Lett*. **2014**, *24*, 5413–5417

171. Asymmetric Michael addition of ketones to nitroolefines by employing pyrrolidinyl-oxazole-carboxamides as new efficient organocatalysts; Kamal, A.; Satish, M.; Srinivasulu, V.; Nekkanti, S.; Chetna, J.; Shekar, K. C.; Tangella, Y.; **Shankaraiah, N**. *Org. Biomol. Chem.***2014**, *12*, 8008–8018

172. Synthesis and biological evaluation of podophyllotoxin congeners as tubulin polymerization inhibitors; Kamal, A.; Reddy, T. S.; Polepalli, S.; Shalini, N.; Reddy, V. G.; Rao, A. V. S.; Jain, N.; **Shankaraiah, N**. *Bioorg. Med. Chem.* **2014**, *22*, 5466–5475

173. Design and synthesis of C3-pyrazole/chalcone linked *β*-carboline hybrids: Antitopoisomerase I, DNA interactive and apoptosis inducing anticancer agents; Kamal, A.; Srinivasulu, V.; Nayak, V. L.; Sathish, M.; **Shankaraiah, N**.; Bagul, C.; Reddy, N. V. S.; Rangaraj, N.; Nagesh, N. *ChemMedChem.* **2014**, *9*, 2084–2098

174. Synthesis and biological evaluation of 4-aza-2,3-dihydropyridophenanthrolines as tubulin polymerization inhibitors; Kamal, A.; Reddy, T. S.; Polepalli, S.; Paidakula, S.; Srinivasulu, V.; Reddy, V. G.; Jain, N.; **Shankaraiah, N**. *Bioorg. Med. Chem. Lett*. **2014**, *24*, 3356–3360

175. Recent Horizons in Drug Discovery and Development; Kamal, A.; **Shankaraiah, N**.; Nekkanti, S. *Curr. Trends Pharm. Sci.* **2014**, *1*, 5-10 (***Review***)

176. Pd-Catalyzed Aryl C-H Activation and Tandem *ortho*-Hydroxylation/Alkoxylation of 2-aryl benzimidazoles: Cytotoxicity and DNA-Binding Studies; Kamal, A.; Srinivasulu, V.; Sathish, M.; Tangella, Y.; Nayak, V. L.; Rao M. P. N.; **Shankaraiah, N**.; Nagesh, N. *Asian J. Org. Chem*. **2014**, *3*, 68–76

2013

177. Isolation, Synthesis and Biological Evaluation of Phenylpropanoids from the Rhizomes of *Alpania galangal*; Chourasiya, S. S.; Sreedhar, E.; Babu, K. S.; **Shankaraiah, N**.; V. Nayak, L. Ramakrishna, S.; Sravani, S.; Rao, M. V. B. *Nat. Prod. Comm*. **2013**, *8*, 1741–1746

178. Copper Oxide Nanoparticles Supported on Graphene Oxide-Catalyzed S-Arylation: An Efficient and Ligand-Free Synthesis of Aryl Sulfides; Kamal, A.; Srinivasulu, V.; Murty, J. N. S. R. C.; **Shankaraiah, N.**; Nagesh, N.; Reddy, T. S.; Rao. A. V. S. *Adv. Syn. Cat*. **2013**, 355, 2297–2307

179. 4*β*-[4′-(1-(Aryl)ureido)benzamide]podophyllotoxins as DNA topoisomerase I and IIα inhibitors and apoptosis inducing agents; Kamal, A.; Suresh, P.; Ramaiah, M. J.; P.; Reddy, T. S.; Kapavarapu, R. K.; Imthiajali, S.; Reddy, T. L. N.; Pushpavalli, S. N. C. V. L.; **Shankaraiah, N.** Bhadra, M.-P. *Bioorg. Med. Chem.* **2013**, *21*, 5198–5208

180. $AlCl_3$-NaI Assisted cleavage of polymer-bound esters with concomitant amine coupling and azido-reductive cyclization: Synthesis of pyrrolobenzodiazepine derivatives; Kamal, A.; Prabhakar, S.; **Shankaraiah, N**.; Markandeya, N.; Srinivasulu, V.; Sathish, M. *Tetrahedron Lett*. **2013**, *54*, 4435–4441

2012

181. Water Mediated Heck and Ullmann Couplings by Supported Palladium Nanoparticles: Importance of Surface Polarity of the Carbon Spheres; Kamal, A.; Srinivasulu, V.; Seshadri, B. N.; Markandeya, N.; Alarifi, A.; **Shankaraiah. N**. *Green Chem.,* **2012***, 14,* 2513–2522

182. Enantioselective Total Synthesis of (*S*)-(+)-Lennoxamine Through Asymmetric Hydrogenation Mediated by L-Proline-tetrazole Ruthenium Catalyst; Mirabal-Gallardo, Y.; Piérola, J.; **Shankaraiah, N**.; Santos, L. S. *Tetrahedron Lett*. **2012**, *53*, 3672–3675

2011

183. A One-pot Azido Reductive Tandem Mono-*N*-Alkylation Employing Dialkylboron Triflates: Online ESI-MS Mechanistic Investigation; **Shankaraiah, N**.; Markandeya, N.; Srinivasulu, V.; Sreekanth, K.; Reddy, Ch. S.; Santos, L. S.; Kamal, A. *J. Org. Chem.* **2011**, *76*, 7017–7026

184. Synthesis and anticancer activity of new chalcone-pyrrolobenzodiazepine conjugates linked via 1,2,3-triazole ring side-armed alkane spacers; Kamal, A.; Prabhakar, S.; Ramaiah, M. J.; Reddy, P. V.; Reddy, Ch. R.; Mallareddy, A.; **Shankaraiah, N**.; Reddy, T. L. N.; Pushpavalli, S. N. C. V. L.; Bhadra, M.-P. *Eur. J. Med. Chem.* **2011**, *46*, 3820–3831

185. An efficient one-pot synthesis of benzothiazolo-4β-anilino-podophyllotoxin congeners: DNA topoisomerase-II inhibition and anticancer activity: Kamal, A.; Kumar, B. A.; Suresh, P.; **Shankaraiah, N**.; Kumar, M. S. *Bioorg. Med. Chem. Lett*. **2011**, *21*, 350–353

186. Total syntheses of rutaecarpine and analogues by tandem azido reductive cyclization assisted by microwave irradiation: Kamal, A.; Reddy, M. K.; Reddy, T. S.; Santos, L. S.; **Shankaraiah, N**. *Synlett* **2011**, 61–64

187. Short Total Synthesis of (–)-Lupinine and (–)-Epiquinamide by Double Mit-sunobu reactions: Santos, L. S.; Gallardo, Y.-M.; **Shankaraiah, N**.; Simirgiotis, M. J. *Synthesis* **2011**, 51–56

2010

188. Enantioselective synthesis of asymmetric β-carboline intermediates; Santos, L. S.; **Shankaraiah, N**.; Espinoza Moraga, M; PCT Int. Appl. **2010**, 38pp. CODEN: PIXXD2 WO 2010060228 A1 20100603 (***US_Patent***)

189. Asymmetric syntheses of piperidino-benzodiazepines through 'cation-pool' host/guest supramolecular approach and their DNA-binding studies: Markandeya, N.; **Shankaraiah, N**.; Reddy, Ch. S.; Santos, L. S.; Kamal, A. *Tetrahedron*: Asymmetry **2010**, *21*, 2625–2630

190. Synthesis of bis-1,2,3-triazolo-bridged unsymmetrical pyrrolobenzodiazepine trimers via 'click' chemistry and their DNA-binding studies: Kamal, A.; **Shankaraiah, N**.; Reddy, Ch. R.; Prabhakar, S.; Markandeya, N.; Srivastava, H. K.; Sastry, G. N. *Tetrahedron*, **2010**, *66,* 5498–5506

191. Synthesis and potential cytotoxic activity of new phenanthrylphenol-pyrrolobenzodiazepines; Kamal, A.; Sreekanth, K.; Kumar, P. P.; **Shankaraiah, N**.; Balakishan, G.; Ramaiah, M. J.; Pushpavalli, S.N.C.V.L.; Ray, P.; Bhadra, M. P. *Eur. J. Med. Chem.* **2010**, *45,* 2173–2181

192. Short synthesis of noscapine, bicuculline, egenine, capnoidine, and corytensine alkaloids through the addition of 1-siloxy-isobenzofurans to imines: Soriano, M. D. P. C.; **Shankaraiah, N**.; Santos, L. S. *Tetrahedron Lett*. **2010**, *51*, 1770–1773

2009

193. Enantioselective total synthesis of pyrroloquinolone as a potent PDE5 inhibitor; **Shankaraiah, N**.; Santos, L. S. *Tetrahedron Lett*. **2009**, *50*, 2700 (*Corrigendum*)
194. Novel Supramolecular Palladium Catalyst for the Asymmetric Reduction of Imines in Aqueous Media: Silva, W. A.; Rodrigues, M. T.; **Shankaraiah, N**.; Ferreira, R. B.; Andrade, C. K. Z.; Pilli, R. A.; Santos, L. S. *Org. Lett*. **2009**, 11, 3238–3241
195. Chemoselective Aromatic Azido Reduction with Concomitant Aliphatic Azide using Al/Gd Triflates-NaI and ESI-MS Mechanistic Studies: Kamal, A.; Markandeya, N.; **Shankaraiah, N**.; Reddy, Ch. R.; Prabhaker, S.; Reddy, Ch. S. Eberlin, N. M.; Santos, L. S. *Chem. Eur. J.* **2009**, *15*, 7214–7224
196. Studies towards the Construction of Quaternary Indolizidines by [2,3]-Sigmatropic Rearrangement Co-catalyzed by Ionic Liquid: Duran-Lara, E. F.; **Shankaraiah, N**.; Geraldo, D.; Santos, L. S. *J. Braz. Chem. Soc*., **2009**, *20*, 813–819
197. One-Pot Microwave-Assisted Selective Azido Reduction/Tandem Cyclization in Condensed and Solid-Phase with Nickel Boride: **Shankaraiah, N**.; Markandeya, N.; Moraga, M.-E.; Kamal, A.; Santos, L. S. *Synthesis* **2009**, 2163–2170
198. Enantioselective total synthesis of pyrroloquinolone as a potent PDE5 inhibitor: **Shankaraiah, N**.; Santos, L. S. *Tetrahedron Lett*. **2009**, *50*, 520–523

2008

199. Enantioselective total synthesis of ropivacaine and its analogues: **Shankaraiah, N**.; Pilli, R. A.; Santos, L. S. *Tetrahedron Lett*. **2008**, *49*, 5098–5100
200. Enantioselective total synthesis of (*S*)-(–)-quinolactacin B: **Shankaraiah, N**.; Silva, W. A.; Andrade, C. K. Z.; Santos, L. S. *Tetrahedron Lett*. **2008**, *49*, 4289–4291
201. An efficient selective reduction of aromatic azides to amines employing $BF_3.OEt_2$/NaI: Synthesis of pyrrolobenzodiazepines: Kamal, A.; **Shankaraiah, N**.; Markandeya, N.; Reddy, Ch. S. *Synlett* **2008**, 1297–1300
202. Synthesis of triazolo C8–C8/C2–C8-linked pyrrolobenzodiazepine dimers by employing "click" chemistry and their DNA-binding affinity: Kamal, A.; Prabhakar, S.; **Shankaraiah, N**.; Reddy, Ch. R.; Reddy, P. V. *Tetrahedron Lett*. **2008**, *49*, 3620–3624
203. Solid-phase synthesis of new pyrrolobenzodiazepine-chalcone conjugates: DNA-binding affinity and anticancer activity: Kamal, A.; **Shankaraiah, N**.; Prabhakar, S.; Reddy, Ch. R.; Markandeya, N.; Reddy, K. L.; Devaiah, V. *Bioorg. Med. Chem. Lett*. **2008**, *18*, 2434–2439
204. A facile intramolecular azido/amido reductive cyclization approach: synthesis of pyrrolobenzodiazepines and their dimmers: Kamal, A.; **Shankaraiah, N**.; Markandeya, N.; Reddy, K. L.; Reddy, Ch. S. *Tetrahedron Lett*. **2008**, *49*, 1465–1468
205. Synthesis of 1,2,3-triazole-linked pyrrolobenzodiazepine conjugates employing 'click' chemistry: DNA-binding affinity and anticancer activity: Kamal, A.; **Shankaraiah, N**.; Devaiah, V.; Reddy, K. L.; Juvekar, A.; Sen, S.; Kurian, N.; Zingde. S. *Bioorg. Med. Chem. Lett*. **2008**, *18*, 1468–1473

2007

206. Design, synthesis and biological activity of A-C8/C-C2-Linked 6-chloropurine-pyrrolobenzodiazepine hybrids as anticancer agents: Kamal, A.; **Shankaraiah, N**.; Reddy, K. L.; Devaiah, V.; Juvekar, A.; Sen, S. *Lett. in Drug. Design & Discovery* **2007**, *4*, 596–604
207. Efficient solid-phase synthesis of a library of imidazo[1,2-*a*]pyridine-8-carboxamides: Kamal, A.; Devaiah, V.; Reddy, K. L.; Rajendar, Shetti, R. V. C. R. N. C.; **Shankaraiah**, **N.** *J. Comb. Chem*. **2007**, *9*, 267–274
208. Solid-phase synthesis of a library of pyrrolo[2,1-*c*][1,4]benzodiazepine-5,11-diones with potential antitubercular activity: Kamal, A.; Reddy, K. L.; Devaiah, V.; **Shankaraiah, N**.; Reddy, G. S. K.; Raghavan, S. *J. Comb. Chem*. **2007**, *9*, 29–42

2006

209. Recent advances in the solid-phase combinatorial synthetic strategies for the quinoxaline, quinazoline and benzimidazole based privileged structures: Kamal, A.; Reddy, K. L.; Devaiah, V.; **Shankaraiah, N**.; Reddy, D. R. S. *Mini-Rev. Med. Chem*. **2006**, *6*, 53–68 (***Review***)
210. Recent advances in the solid-phase combinatorial synthetic strategies for the benzodiazepine based privileged structures: Kamal, A.; Reddy, K. L.; Devaiah, V.; **Shankaraiah, N**.; Rao, M. V. *Mini-Rev. Med. Chem*. **2006**, *6,* 69–87 (***Review***)
211. Solid-phase synthesis of fused [2,1-*b*]quinazolinone alkaloids: Kamal, A.; **Shankaraiah, N**.; Devaiah, V.; Reddy, K. L. *Tetrahedron Lett*. **2006**, *47*, 9025–9028
212. A polymer-assisted solution-phase strategy for the synthesis of fused [2,1-*b*]quinazolinones and the preparation of optically active vasicinone: Kamal, A.; Devaiah, V.; **Shankaraiah, N**.; Reddy, K. L. *Synlett* **2006**, 2609–2612
213. An efficient solid-phase synthesis of biologically important DNA-interactive pyrrolo[2,1-*c*][1,4]benzodiazepine dimers (DSB-120) and their C2-fluorinated analogues: Kamal, A.; **Shankaraiah, N**.; Devaiah, V.; Reddy, K. L. *Tetrahedron Lett*. **2006**, *47*, 6553–6556
214. Selective reduction of aromatic azides in solution/solid-phase and resin cleavage by employing $BF_3.OEt_2$/EtSH. Preparation of DC-81: Kamal, A.; **Shankaraiah, N**.; Reddy, K. L.; Devaiah, V. *Tetrahedron Lett*. **2006**, *47*, 4253–4257
215. Conversion of amines to imines employing polymer-supported sulfoxide (PSS) and polymer-supported perruthenate (PSP): Synthesis of pyrrolo[2,1-*c*][1,4]benzodiazepines: Kamal, A.; Devaiah, V.; Reddy, K. L.; **Shankaraiah, N**. *Adv. Syn. Cat*. **2006**, *348*, 249–254

2005

216. Synthesis and biological activity of C-8 fluoroaryl substituted pyrimidine linked-pyrrolobenzodiazepine conjugates: Kamal, A.; Reddy, K. L.; Devaiah, V.; **Shankaraiah, N**.; Kumar, M. S.; Reddy, G. S. K. *Lett. in Drug Design & Discovery* **2005**, *2*, 55–61

2004

217. A new approach for the solid-phase synthesis of pyrrolo[2,1-*c*][1,4]benzodiazepines involving reductive cleavage: Kamal, A.; Reddy, K. L.; Devaiah, V.; **Shankaraiah, N**.; Reddy, Y. N. *Tetrahedron Lett*. **2004**, *45*, 7667–7669

218. Synthesis of DNA-Interactive pyrrolo[2,1-*c*][1,4]benzodiazepines by employing polymer-supported reagents: Preparation of DC-81: Kamal, A.; Reddy, K. L.; Devaiah, V.; **Shankaraiah, N**. *Synlett* **2004**, 2533–2536

219. Facile and efficient solid-phase synthesis of DNA-interactive pyrrolo[2,1-*c*][1,4]benzodiazepines: Kamal, A.; Reddy, K. L.; Devaiah, V.; **Shankaraiah, N**. *Synlett* **2004**, 1841–18430.