Authored/Coauthored Publications

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1. Palakkeezhillam, V. N. V.; Haribabu, J.; Manakkadan, V.; Rasin, P.; Varughese, R. E.; Gayathri, D.; **Bhuvanesh**, N.; Echeverria, C.; Sreekanth, A., Synthesis, spectroscopic characterizations, single crystal X-ray analysis, DFT calculations, in vitro biological evaluation and in silico evaluation studies of thiosemicarbazones based 1,3,4-thiadiazoles. *Journal of Molecular Structure* **2023,** *1273*, 134309.

2. Zarcone, S. R.; Verardi, P. J.; **Bhuvanesh**, N.; Gladysz, J. A., A surprise landing on the terra incognita of macrocyclic dibridgehead diorganoarsines: syntheses, structures, and reactivities. *Chemical Communications (Cambridge, United Kingdom)* **2022,** *58* (62), 8694-8697.

3. Wegener, A. R.; Ghosh, S. K.; **Bhuvanesh**, N.; Reibenspies, J.; Gladysz, J. A., Rhodium(III) Werner Complexes with 1,2-Diphenylethylenediamine Ligands: Syntheses, Structures, and Applications as Chiral Hydrogen Bond Donor Catalysts and Agents for Enantiomer Purity Determinations. *European Journal of Inorganic Chemistry* **2022,** *2022* (13), e202200066.

4. Vidlak, J. F.; Cosio, M. N.; Sriramaneni, N. K.; **Bhuvanesh**, N.; Ozerov, O. V.; Johnson, M. W., Synthesis of pyrrole-based PSiP pincer ligands and their palladium, rhodium, and platinum complexes. *Dalton Transactions* **2022,** *51* (20), 7797-7803.

5. Verma, A.; **Bhuvanesh**, N.; Reibenspies, J.; Saha, S.; Sunkari, S. S., Confocal Raman microscopic evidence for cyclic water Pentamer, at high temperatures in a supramolecular host of [Cu(cyclam)(N3)2]·4H2O. *Spectrochimica Acta, Part A: Molecular and Biomolecular Spectroscopy* **2022,** *274*, 121121.

6. Vanjak, J. C.; Wilkins, B. O.; Vieru, V.; **Bhuvanesh**, N. S.; Reibenspies, J. H.; Martin, C. D.; Chibotaru, L. F.; Nippe, M., A High-Performance Single-Molecule Magnet Utilizing Dianionic Aminoborolide Ligands. *Journal of the American Chemical Society* **2022,** *144* (39), 17743-17747.

7. Swaminathan, S.; Haribabu, J.; Mohamed Subarkhan, M. K.; Manonmani, G.; Senthilkumar, K.; Balakrishnan, N.; **Bhuvanesh**, N.; Echeverria, C.; Karvembu, R., Coordination Behavior of Acylthiourea Ligands in Their Ru(II)-Benzene Complexes-Structures and Anticancer Activity. *Organometallics* **2022,** *41* (13), 1621-1630.

8. Sudhakaran, G.; Rajesh, R.; Guru, A.; Haridevamuthu, B.; Murugan, R.; **Bhuvanesh**, N.; Wadaan, M. A.; Mahboob, S.; Juliet, A.; Gopinath, P.; Arockiaraj, J., Deacetylated nimbin analog N2 fortifies alloxan-induced pancreatic β-cell damage in insulin-resistant zebrafish larvae by upregulating phosphoenolpyruvate carboxykinase (PEPCK) and insulin levels. *Toxicology and Applied Pharmacology* **2022,** *454*, 116229.

9. Shapterhasmi, T.; Palani, N.; Velusamy, M.; **Bhuvanesh**, N. S. P.; Sundaravel, K.; Easwaramoorthi, S., Iron(III) complexes of pyrrolidine and piperidine appended tridentate 3N donor ligands as models for catechol dioxygenase enzymes. *Inorganica Chimica Acta* **2022,** *537*, 120924.

10. Shalini, C.; Dharmaraj, N.; **Bhuvanesh**, N. S. P.; Kaveri, M. V., Suzuki Miyaura cross-coupling of 2-chloropyrazine with arylboronic acids catalyzed by novel palladium(II) ONO pincer complexes. *Inorganica Chimica Acta* **2022,** *540*, 121028.

11. Ravindran N E, A.; Sindhuja, D.; **Bhuvanesh**, N.; Karvembu, R., Synthesis of 1,2-Disubstituted Benzimidazoles via Acceptorless Dehydrogenative Coupling Using Ru(II)-Arene Catalysts Containing Ferrocene Thiosemicarbazone. *European Journal of Inorganic Chemistry* **2022,** *2022* (18), e202200181.

12. Rajput, D.; Kumar, A.; Jandial, T.; Karuppasamy, M.; **Bhuvanesh**, N.; Kumar, R. S.; Almansour, A. I.; Sridharan, V., Microwave-Assisted Copper(II)-Catalyzed Cascade Cyclization of 2-Propargylamino/Oxy-Arylaldehydes and O-Phenylenediamines: Access to Densely Functionalized Benzo[f]Imidazo[1,2-d][1,4]Oxazepines and Benzo[f]Imidazo[1,2-d][1,4]Diazepines. *Journal of Organic Chemistry* **2022,** *87* (14), 8956-8969.

13. Rajasekaran, H.; Jerome, P.; Eliseenkov, E. V.; Boyarskiy, V. P.; **Bhuvanesh**, N.; Karvembu, R., Half-sandwich Ru(II)-thioamide complexes as catalysts for one pot synthesis of aromatic 1,5-diketones. *Journal of Organometallic Chemistry* **2022,** *965-966*, 122322.

14. Rain Talosig, A.; Cosio, M. N.; Morse, B.; Nguyen, V. T.; Kosanovich, A. J.; Pell, C. J.; Li, C.; **Bhuvanesh**, N.; Zhou, J.; Larsen, A. S.; Ozerov, O. V., Distinct modes of Si-H binding to Rh in complexes of a phosphine-diarylamido-silane (SiNP) pincer ligand. *Dalton Transactions* **2022,** *51* (37), 14150-14155.

15. Mohanbabu, M.; Sathishkumar, P. N.; **Bhuvanesh**, N. S. P.; Karvembu, R.; Saravanan, K.; Vinoth, E.; Aravindhan, S., Synthesis, characterization, crystal structure, hirshfeld surface analysis and DFT calculations of N-(pyridin-2-ylmethyl)furan-2-carboxamide and its molecular docking. *Journal of Materials Science: Materials in Electronics* **2022,** *33* (12), 9616-9628.

16. Meena, N.; Kumar, S.; Shinde, V. N.; Reddy, S. R.; Himanshi; **Bhuvanesh**, N.; Kumar, A.; Joshi, H., Bulky Selenium Ligand Stabilized Trans-Palladium Dichloride Complexes as Catalyst for Silver-Free Decarboxylative Coupling of Coumarin-3-Carboxylic Acids. *Chemistry - An Asian Journal* **2022,** *17* (3), e202101199.

17. Martin, L.; Sheng, J.; **Bhuvanesh**, N.; Jalali-Mousavi, M.; Xu, W., Development of photoluminescent ZnO nanoparticles for biological tracking. *MRS Advances* **2022,** *7* (16-17), 333-336.

18. Kowsalya, P.; Neelakantan, M. A.; **Bhuvanesh**, N. S. P., Tetranuclear Cu(II) complex with [2+4] Cu4O4 cubane based core framework derived from 2-[{2-(1-hydroxy-ethyl)-phenylimino}-methyl]-6-methoxy-phenol: Quantifying conventional and unconventional interactions and QTAIM analysis. *Journal of Molecular Structure* **2022,** *1254*, 132396.

19. Kalaiyarasi, A.; **Bhuvanesh**, N. S. P.; Karvembu, R.; Biju, V. M., Electrochemical sensing of doxepin using acylthiourea-modified glassy carbon electrode. *Phosphorus, Sulfur and Silicon and the Related Elements* **2022,** *197* (7), 697-704.

20. Harshini, D.; Angela, V. M.; Devibala, P.; Imran, P. M.; **Bhuvanesh**, N. S. P.; Nagarajan, S., Improved resistive switching WORM memory behavior in D-π-A architectures by modifying the terminal donor units. *ACS Applied Electronic Materials* **2022,** *4* (9), 4383-4395.

21. Haribabu, J.; Garisetti, V.; Malekshah, R. E.; Srividya, S.; Gayathri, D.; **Bhuvanesh**, N.; Mangalaraja, R. V.; Echeverria, C.; Karvembu, R., Design and synthesis of heterocyclic azole based bioactive compounds: Molecular structures, quantum simulation, and mechanistic studies through docking as multi-target inhibitors of SARS-CoV-2 and cytotoxicity. *Journal of Molecular Structure* **2022,** *1250* (Part_2), 131782.

22. Handy, J. V.; Andrews, J. L.; Zhang, B.; Kim, D.; **Bhuvanesh**, N.; Tu, Q.; Qian, X.; Banerjee, S., Topochemical stabilization and single-crystal transformations of a metastable 2D γ′-V2O5 intercalation cathode. *Cell Reports Physical Science* **2022,** *3* (1), 100712.

23. Handy, J. V.; Andrews, J. L.; Perez-Beltran, S.; Powell, D. R.; Albers, R.; Whittaker-Brooks, L.; **Bhuvanesh**, N.; Banerjee, S., A "Li-Eye" View of Diffusion Pathways in a 2D Intercalation Material from Topochemical Single-Crystal Transformation. *ACS Energy Letters* **2022,** *7* (6), 1960-1962.

24. Gunther, S. O.; Lee, C.-I.; Song, E.; **Bhuvanesh**, N.; Ozerov, O. V., Isolable fluorinated triphenylmethyl cation salts of [HCB11Cl11]-: demonstration of remarkable hydride affinity. *Chemical Science* **2022,** *13* (17), 4972-4976.

25. Eswaran, J.; Mariappan, A.; Arumugham, N.; Murugan, T.; **Bhuvanesh**, N. s.; Anathakrishnan, N. M.; Daniel, S.; Kanthapazham, R., Ruthenium(III) and (II) complexes containing pyridine moiety: Synthesis, crystal structure and in vitro biological evaluation. *Journal of Molecular Structure* **2022,** *1270*, 133929.

26. Estrada, A. L.; Wang, L.; **Bhuvanesh**, N.; Hampel, F.; Gladysz, J. A., Syntheses, Structures, Reactivities, and Dynamic Properties of Gyroscope-like Complexes Consisting of Rh(CO)(X) or Rh(CO)2(I) Rotators and Cage-like Trans Aliphatic Dibridgehead Diphosphine Stators. *Organometallics* **2022,** *41* (6), 733-749.

27. Cao, Y.; Shih, W.-C.; **Bhuvanesh**, N.; Zhou, J.; Ozerov, O. V., Correction: Cooperative C-H activation of pyridine by PBP complexes of Rh and Ir can lead to bridging 2-pyridyls with different connectivity to the B-M unit. *Chemical Science* **2022,** *13* (27), 8203.

28. Bhatt, S.; Meena, N.; Kumar, M.; **Bhuvanesh**, N.; Kumar, A.; Sharma, A. K.; Joshi, H., Design and Syntheses of Ruthenium ENE (E = S, Se) Pincer Complexes: A Versatile System for Catalytic and Biological Applications. *Chemistry - An Asian Journal* **2022,** *17* (21), e202200736.

29. Balakrishnan, N.; Haribabu, J.; Eshaghi Malekshah, R.; Swaminathan, S.; Balachandran, C.; **Bhuvanesh**, N.; Aoki, S.; Karvembu, R., Effect of N-benzyl group in indole scaffold of thiosemicarbazones on the biological activity of their Pd(II) complexes: DFT, biomolecular interactions, in silico docking, ADME and cytotoxicity studies. *Inorganica Chimica Acta* **2022,** *534*, 120805.

30. Asha, R. N.; Sankarganesh, M.; **Bhuvanesh**, N.; Nayagam, B. R. D., Synthesis, structural, spectral, antidiabetic, DNA interactions and molecular docking investigations of a piperidine derivative. *Journal of Molecular Structure* **2022,** *1250* (Part_1), 131692.

31. Asha, R. N.; Daisy, C.; **Bhuvanesh**, N.; Nayagam, B. R. D., 2,4-bis(bromomethyl)-1,3,5-trimethylbenzene with 2-mercaptopyridine based derivative: Synthesis, crystal structure, in vitro anticancer activity, DFT, Hirshfeld surface analysis, antioxidant, DNA binding and molecular docking studies. *Journal of Molecular Structure* **2022,** *1251*, 131981.

32. Arras, J.; Ugarte Trejo, O.; **Bhuvanesh**, N.; Stollenz, M., Non-conventional hydrogen bonding and dispersion forces that support embedding mesitylgold into a tailored bis(amidine) framework. *Chemical Communications (Cambridge, United Kingdom)* **2022,** *58* (9), 1418-1421.

33. Arras, J.; Ugarte Trejo, O.; **Bhuvanesh**, N.; McMillen, C. D.; Stollenz, M., Hydrogen bonds and dispersion forces serving as molecular locks for tailored Group 11 bis(amidine) complexes. *Inorganic Chemistry Frontiers* **2022,** *9* (13), 3267-3281.

34. Anjali, A.; Lenka, S. K.; Imran, P. M.; **Bhuvanesh**, N. S. P.; Nagarajan, S., Functionalized D/A-A-D quinolines for application in solution-processable p-channel organic field-effect transistors. *New Journal of Chemistry* **2022,** *46* (28), 13608-13614.

35. Anjali, A.; Imran, P. M.; **Bhuvanesh**, N. S. P.; Nagarajan, S., Influence of π-Endcaps on the Performance of Functionalized Quinolines for p-Channel OFETs. *Macromolecular Rapid Communications* **2022,** *43* (3), 2100472.

36. Zhu, Y.; Ehnbom, A.; Fiedler, T.; Shu, Y.; **Bhuvanesh**, N.; Hall, M. B.; Gladysz, J. A., Platinum(II) alkyl complexes of chelating dibridgehead diphosphines P((CH2)n)3P (n = 14, 18, 22); facile cis/trans isomerizations interconverting gyroscope and parachute like adducts. *Dalton Transactions* **2021,** *50* (36), 12457-12477.

37. Zarcone, S. R.; Chu, G. M.; Ehnbom, A.; Cardenal, A.; Fiedler, T.; **Bhuvanesh**, N.; Hall, M. B.; Gladysz, J. A., Toward Frameworks with Multiple Aligned and Interactive Fe(CO)3 Rotators: Syntheses and Structures of Diiron Complexes Linked by Two trans-Diaxial α,ω-Diphosphine Ligands Ar2P(CH2)nPAr2. *Inorganic Chemistry* **2021,** *60* (5), 3314-3330.

38. Yang, X.; DeLaney, C. R.; Burns, K. T.; Elrod, L. C.; Mo, W.; Naumann, H.; **Bhuvanesh**, N.; Hall, M. B.; Darensbourg, M. Y., Self-Assembled Nickel-4 Supramolecular Squares and Assays for HER Electrocatalysts Derived Therefrom. *Inorganic Chemistry* **2021,** *60* (10), 7051-7061.

39. Van Trieste, G. P., III; Reid, K. A.; Hicks, M. H.; Das, A.; Figgins, M. T.; **Bhuvanesh**, N.; Ozarowski, A.; Telser, J.; Powers, D. C., Nitrene Photochemistry of Manganese N-Haloamides. *Angewandte Chemie, International Edition* **2021,** *60* (51), 26647-26655.

40. Van Trieste, G. P., III; Hicks, M. H.; Das, A.; **Bhuvanesh**, N.; Ozarowski, A.; Telser, J.; Powers, D. C., Nitrene photochemistry of manganese N-haloamides. *ChemRxiv* **2021**, 1-20.

41. Swaminathan, S.; Haribabu, J.; Mohamed Subarkhan, M. K.; Gayathri, D.; Balakrishnan, N.; **Bhuvanesh**, N.; Echeverria, C.; Karvembu, R., Impact of aliphatic acyl and aromatic thioamide substituents on the anticancer

activity of Ru(II)-p-cymene complexes with acylthiourea ligands-in vitro and in vivo studies. *Dalton Transactions* **2021,** *50* (44), 16311-16325.

42. Swaminathan, S.; Haribabu, J.; Kalagatur, N. K.; Nikhil, M.; Balakrishnan, N.; **Bhuvanesh**, N. S. P.; Kadirvelu, K.; Kolandaivel, P.; Karvembu, R., Tunable Anticancer Activity of Furoylthiourea-Based RuII-Arene Complexes and Their Mechanism of Action. *Chemistry - A European Journal* **2021,** *27* (26), 7418-7433.

43. Sudharsan, M.; Nethaji, M.; **Bhuvanesh**, N. S.; Suresh, D., Heteroleptic Palladium(II) Complexes of Thiazolinyl-picolinamide Derived N∩N∩N Pincer Ligand: An Efficient Catalyst for Acylative Suzuki Coupling Reactions. *Asian Journal of Organic Chemistry* **2021,** *10* (11), 2982-2992.

44. Sindhuja, D.; Gopiraman, M.; Vasanthakumar, P.; **Bhuvanesh**, N.; Karvembu, R., Ruthenium-p-cymene complexes with acylthiourea, and its heterogenized form on graphene oxide act as catalysts for the synthesis of quinoxaline derivatives. *Journal of Organometallic Chemistry* **2021,** *949*, 121933.

45. Ramirez-Contreras, R.; Cosio, M. N.; Park, S.; **Bhuvanesh**, N.; Ozerov, O. V., Arene Coordination Induces Migration of a Hydride to a Ru-Bound Carbene of a Pincer Ligand. *Journal of Organometallic Chemistry* **2021,** *938*, 121747.

46. Neethu, K. S.; Sivaselvam, S.; Theetharappan, M.; Ranjitha, J.; **Bhuvanesh**, N. S. P.; Ponpandian, N.; Neelakantan, M. A.; Kaveri, M. V., In vitro evaluations of biomolecular interactions, antioxidant and anticancer activities of Nickel(II) and Copper(II) complexes with 1:2 coordination of anthracenyl hydrazone ligands. *Inorganica Chimica Acta* **2021,** *524*, 120419.

47. Nandini Asha, R.; Ravindran Durai Nayagam, B.; **Bhuvanesh**, N., Synthesis, molecular docking, and in silico ADMET studies of 4-benzyl-1-(2,4,6-trimethyl-benzyl)-piperidine: Potential Inhibitor of SARS-CoV2. *Bioorganic Chemistry* **2021,** *112*, 104967.

48. Mishra, A.; Dheepika, R.; Parvathy, P. A.; Imran, P. M.; **Bhuvanesh**, N. S. P.; Nagarajan, S., Fluorescence quenching based detection of nitroaromatics using luminescent triphenylamine carboxylic acids. *Scientific Reports* **2021,** *11* (1), 19324.

49. Matheswari, P. P.; Asha, R. N.; **Bhuvanesh**, N.; Nayagam, B. R. D., Synthesis, structure, Hirshfeld surface, DFT, and molecular docking studies of a new organic cocrystal: creatinine:2,3-pyridinedicarboxylic acid. *Journal of Physical Organic Chemistry* **2021,** *34* (9), e4247.

50. Loganathan, P.; Pillai, R. S.; Jeevananthan, V.; David, E.; Palanisami, N.; **Bhuvanesh**, N. S. P.; Shanmugan, S., Assembly of discrete and oligomeric structures of organotin double-decker silsesquioxanes: inherent stability studies. *New Journal of Chemistry* **2021,** *45* (43), 20144-20154.

51. Lai, Q.; **Bhuvanesh**, N.; Zhou, J.; Ozerov, O. V., Formation of an Ag→Al dative bond is avoided in reactions of an alane/tris(phosphine) ligand with monovalent silver. *Dalton Transactions* **2021,** *50* (17), 5776-5778.

52. Kumaresan, S.; Asha, R. N.; Libiyal, J. M.; Selvam, V. A.; **Bhuvanesh**, N.; Nayagam, B. R. D., Growth, structural, Hirshfeld surface analysis, DFT validation on the crystal structure of 1, 10-Phenanthrolin-1-ium-5,6-dione perchlorate monohydrate. *Chemical Data Collections* **2021,** *33*, 100706.

53. Hung, M.-U.; Press, L. P.; **Bhuvanesh**, N.; Ozerov, O. V., Examination of a Series of Ir and Rh PXL Pincer Complexes as (Pre)catalysts for Aromatic C-H Borylation. *Organometallics* **2021,** *40* (7), 1004-1013.

54. Haribabu, J.; Balakrishnan, N.; Swaminathan, S.; Peter, J.; Gayathri, D.; Echeverria, C.; **Bhuvanesh**, N.; Karvembu, R., Synthesis, cytotoxicity and docking studies (with SARS-CoV-2) of water-soluble binuclear Ru-p-cymene complex holding indole thiosemicarbazone ligand. *Inorganic Chemistry Communications* **2021,** *134*, 109029.

55. Haribabu, J.; Alajrawy, O. I.; Jeyalakshmi, K.; Balachandran, C.; Krishnan, D. A.; **Bhuvanesh**, N.; Aoki, S.; Natarajan, K.; Karvembu, R., N-substitution in isatin thiosemicarbazones decides nuclearity of Cu(II) complexes - Spectroscopic, molecular docking and cytotoxic studies. *Spectrochimica Acta, Part A: Molecular and Biomolecular Spectroscopy* **2021,** *246*, 118963.

56. Gunther, S. O.; Lai, Q.; Senecal, T.; Huacuja, R.; Bremer, S.; Pearson, D. M.; DeMott, J. C.; **Bhuvanesh**, N.; Ozerov, O. V.; Klosin, J., Highly Efficient Carborane-Based Activators for Molecular Olefin Polymerization Catalysts. *ACS Catalysis* **2021,** *11* (6), 3335-3342.

57. Gunther, S. O.; Kosanovich, A. J.; Cao, Y.; **Bhuvanesh**, N.; Ozerov, O. V., Nucleopincers? Rhodium Complexes of Pyrimidine-centered PNP Pincer Ligands Derived from Nitrogenous Nucleobases Uracil and Thymine. *Zeitschrift fuer Anorganische und Allgemeine Chemie* **2021,** *647* (14), 1421-1428.

58. Dorairaj, D. P.; Haribabu, J.; Chithravel, V.; Vennila, K. N.; **Bhuvanesh**, N.; Echeverria, C.; Hsu, S. C. N.; Karvembu, R., Spectroscopic, anticancer and antioxidant studies of fluxional trans-[PdCl2(S-acylthiourea)2] complexes. *Results in Chemistry* **2021,** *3*, 100157.

59. Devibala, P.; Balambiga, B.; Mohamed Imran, P.; **Bhuvanesh**, N. S. P.; Nagarajan, S., Butterfly-Like Triarylamines with High Hole Mobility and On/Off Ratio in Bottom-Gated OFETs. *Chemistry - A European Journal* **2021,** *27* (62), 15375-15381.

60. DeLaney, C.; Sheng, Y.; Pectol, D. C.; Vantansever, E.; Zhang, H.; **Bhuvanesh**, N.; Salas, I.; Liu, W. R.; Fierke, C. F.; Darensbourg, M. Y., Zinc thiotropolone combinations as inhibitors of the SARS-CoV-2 main protease. *Dalton Transactions* **2021,** *50* (35), 12226-12233.

61. Collins, B. K.; Clough Mastry, M.; Ehnbom, A.; **Bhuvanesh**, N.; Hall, M. B.; Gladysz, J. A., Macrocyclic Complexes Derived from Four cis-L2Pt Corners and Four Butadiynediyl Linkers; Syntheses, Electronic Structures, and Square versus Skew Rhombus Geometries. *Chemistry - A European Journal* **2021,** *27* (39), 10021-10039.

62. Cao, Y.; Shih, W.-C.; **Bhuvanesh**, N.; Zhou, J.; Ozerov, O. V., Cooperative C-H activation of pyridine by PBP complexes of Rh and Ir can lead to bridging 2-pyridyls with different connectivity to the B-M unit. *Chemical Science* **2021,** *12* (42), 14167-14173.

63. Asha, R. N.; Jeyamalar, J. I.; Durai Nayagam, B. R.; **Bhuvanesh**, N., Investigation on experimental and theoretical studies of NLO active organic single crystal: 3-methyl-1-[(2,3,5,6-tetramethylphenyl)methyl]piperidin-1-ium bromide. *Optik (Munich, Germany)* **2021,** *245*, 167652.

64. Arp, F. F.; Ashirov, R.; **Bhuvanesh**, N.; Blumel, J., Di(hydroperoxy)adamantane adducts: synthesis, characterization and application as oxidizers for the direct esterification of aldehydes. *Dalton Transactions* **2021,** *50* (42), 15296-15309.

65. Amini, H.; Weisbach, N.; Gauthier, S.; Kuhn, H.; **Bhuvanesh**, N.; Hampel, F.; Reibenspies, J. H.; Gladysz, J. A., Trapping of Terminal Platinapolyynes by Copper(I) Catalyzed Click Cycloadditions; Probes of Labile Intermediates in Syntheses of Complexes with Extended sp Carbon Chains, and Crystallographic Studies. *Chemistry - A European Journal* **2021,** *27* (49), 12619-12634.

66. Yu, C.-H.; Zhu, C.; Ji, X.; Hu, W.; Xie, H.; **Bhuvanesh**, N.; Fang, L.; Ozerov, O. V., Palladium bis-pincer complexes with controlled rigidity and inter-metal distance. *Inorganic Chemistry Frontiers* **2020,** *7* (22), 4357-4366.

67. Yu, C.-H.; Yang, X.; Ji, X.; Wang, C.-H.; Lai, Q.; **Bhuvanesh**, N.; Ozerov, O. V., Redox Communication between Two Diarylamido/Bis(phosphine) (PNP)M Moieties Bridged by Ynediyl Linkers (M = Ni, Pd, Pt). *Inorganic Chemistry* **2020,** *59* (14), 10153-10162.

68. Yadhukrishnan, V. O.; Muralisankar, M.; Dheepika, R.; Konakanchi, R.; **Bhuvanesh**, N. S. P.; Nagarajan, S., Structurally different domains embedded half-sandwich arene Ru(II) complex: DNA/HSA binding and cytotoxic studies. *Journal of Coordination Chemistry* **2020,** *73* (10), 1591-1604.

69. Vachan, B. S.; Karuppasamy, M.; Jan, G.; **Bhuvanesh**, N.; Maheswari, C. U.; Sridharan, V., Direct Access to Bridged Tetrahydroquinolines and Chromanes via an InCl3-Catalyzed Sequential Three-Component Cascade. *Journal of Organic Chemistry* **2020,** *85* (12), 8062-8073.

70. Suyambulingam, J. K.; Karvembu, R.; **Bhuvanesh**, N. S. P.; Enoch, I. V. M. V.; Selvakumar, P. M.; Premnath, D.; Subramanian, C.; Mayakrishnan, P.; Kim, S.-H.; Chung, I.-M., Synthesis, structure, biological/chemosensor evaluation and molecular docking studies of aminobenzothiazole Schiff bases. *Journal of Adhesion Science and Technology* **2020**, Ahead of Print.

71. Sonalin, S.; Mishra, A.; Sahu, A. K.; Mishra, A. K.; Imran, P. M.; **Bhuvanesh**, N. S. P.; Nagarajan, S., Aggregation Behavior and High Charge-Carrier OFET-Mobility of Functionalized Phenanthro[9,10-d]imidazoles. *Journal of Physical Chemistry C* **2020,** *124* (24), 13053-13062.

72. Shinde, V. N.; **Bhuvanesh**, N.; Kumar, A.; Joshi, H., Design and Syntheses of Palladium Complexes of NNN/CNN Pincer Ligands: Catalyst for Cross Dehydrogenative Coupling Reaction of Heteroarenes. *Organometallics* **2020,** *39* (2), 324-333.

73. Sathishkumar, P. N.; Prabha, P. S.; **Bhuvanesh**, N. S. P.; Karvembu, R., Tuning acylthiourea ligands in Ru(II) catalysts for altering the reactivity and chemoselectivity of transfer hydrogenation reactions, and synthesis of 3-isopropoxy-1H-indole through a new synthetic approach. *Journal of Organometallic Chemistry* **2020,** *908*, 121087.

74. Risica, G. M.; Vieru, V.; Wilkins, B. O.; Latendresse, T. P.; Reibenspies, J. H.; **Bhuvanesh**, N. S.; Wylie, G. P.; Chibotaru, L. F.; Nippe, M., Axial Elongation of Mononuclear Lanthanide Metallocenophanes: Magnetic Properties of Dysprosium- and Terbium-[1]Ruthenocenophane Complexes. *Angewandte Chemie, International Edition* **2020,** *59* (32), 13335-13340.

75. Ramachandran, E.; Gandin, V.; Bertani, R.; Sgarbossa, P.; Natarajan, K.; **Bhuvanesh**, N. S. P.; Venzo, A.; Zoleo, A.; Mozzon, M.; Dolmella, A.; Albinati, A.; Castellano, C.; Conceicao, N. R.; Da Silva, M. F. C. G.; Marzano, C., Synthesis, characterization and biological activity of novel Cu(II) complexes of 6-methyl-2-oxo-1,2-dihydroquinoline-3-carbaldehy de-4n-substituted thiosemicarbazones. *Molecules* **2020,** *25* (8), 1868.

76. Ramachandran, E.; Bertani, R.; Sgarbossa, P.; Mozzon, M.; Ramachandran, E.; Gandin, V.; Dolmella, A.; Marzano, C.; Natarajan, K.; **Bhuvanesh** Nattamai, S. P.; Venzo, A.; Zoleo, A.; Albinati, A.; Castellano, C.; Reis Conceicao, N.; Fatima, C. G. d. S. M., Synthesis, Characterization and Biological Activity of Novel Cu(II) Complexes of 6-Methyl-2-Oxo-1,2-Dihydroquinoline-3-Carbaldehyde-4n-Substituted Thiosemicarbazones. *Molecules* **2020,** *25* (8).

77. Prasanth, P. A.; Nantheeswaran, P.; Anbazhagan, V.; Senthilnathan, R.; Jothi, A.; **Bhuvanesh**, N. S. P.; Sannegowda, L. K.; Mariappan, M., The metal center in salen-acridine dyad N2O2 ligand-metal complexes modulates DNA binding and photocleavage efficiency. *New Journal of Chemistry* **2020,** *44* (23), 9888-9895.

78. Mukherjee, T.; Ghosh, S. K.; Wititsuwannakul, T.; **Bhuvanesh**, N.; Gladysz, J. A., Chiral-at-Metal Ruthenium Complexes with Guanidinobenzimidazole and Pentaphenylcyclopentadienyl Ligands: Synthesis, Resolution, and Preliminary Screening as Enantioselective Second Coordination Sphere Hydrogen Bond Donor Catalysts. *Organometallics* **2020,** *39* (8), 1163-1175.

79. Meena, N.; Sharma, S.; Bhatt, R.; Shinde, V. N.; Sunda, A. P.; **Bhuvanesh**, N.; Kumar, A.; Joshi, H., A selenium-coordinated palladium(II) trans-dichloride molecular rotor as a catalyst for site-selective annulation of 2-arylimidazo[1,2-a]pyridines. *Chemical Communications (Cambridge, United Kingdom)* **2020,** *56* (70), 10223-10226.

80. Latendresse, T. P.; Vieru, V.; Upadhyay, A.; **Bhuvanesh**, N. S.; Chibotaru, L. F.; Nippe, M., Trends in trigonal prismatic Ln-[1]ferrocenophane complexes and discovery of a Ho3+ single-molecule magnet. *Chemical Science* **2020,** *11* (15), 3936-3951.

81. Lai, Q.; **Bhuvanesh**, N.; Ozerov, O. V., Unexpected B/Al Transelementation within a Rh Pincer Complex. *Journal of the American Chemical Society* **2020,** *142* (50), 20920-20923.

82. Karuppasamy, M.; Vachan, B. S.; Jandial, T.; Babiola Annes, S.; **Bhuvanesh**, N.; Uma Maheswari, C.; Sridharan, V., Palladium(II)-Catalyzed Direct Access to Indeno[1,2-c]isochromen-5(11H)-Ones via Intramolecular Oxypalladation-Initiated Cascade Process. *Advanced Synthesis & Catalysis* **2020,** *362* (13), 2716-2724.

83. Kariyawasam Pathirana, K. D.; Ghosh, P.; Hsieh, C.-H.; Elrod, L. C.; **Bhuvanesh**, N.; Darensbourg, D. J.; Darensbourg, M. Y., Synthetic Metallodithiolato Ligands as Pendant Bases in [FeIFeI], [FeI[Fe(NO)]II], and [(μ-H)FeIIFeII] Complexes. *Inorganic Chemistry* **2020,** *59* (6), 3753-3763.

84. Kabes, C. Q.; Maximuck, W. J.; Ghosh, S. K.; Kumar, A.; **Bhuvanesh**, N.; Gladysz, J. A., Chiral Tricationic Tris(1,2-diphenylethylenediamine) Cobalt(III) Hydrogen Bond Donor Catalysts with Defined Carbon/Metal Configurations; Matched/Mismatched Effects upon Enantioselectivities with Enantiomeric Chiral Counter Anions. *ACS Catalysis* **2020,** *10* (5), 3249-3263.

85. Jerome, P.; Haribabu, J.; **Bhuvanesh**, N. S. P.; Karvembu, R., Pd(II)-NNN Pincer Complexes for Catalyzing Transfer Hydrogenation of Ketones. *ChemistrySelect* **2020,** *5* (43), 13591-13597.

86. Jayanthi, E.; Anusuya, M.; Anusuya, R.; Thenmozhi, K.; Nagaveni, A.; **Bhuvanesh**, N. S. P., Synthesis, structure and antioxidant activity of mixed ruthenium(iii) benzoyl pyridine complex. *Asian Journal of Chemistry* **2020,** *32* (3), 641-645.

87. Hyun, S.-M.; Upadhyay, A.; Das, A.; Burns, C. P.; Sung, S.; Beaty, J. D.; **Bhuvanesh**, N.; Nippe, M.; Powers, D. C., Kinetic versus thermodynamic metalation enables synthesis of isostructural homo- and heterometallic trinuclear clusters. *Chemical Communications (Cambridge, United Kingdom)* **2020,** *56* (44), 5893-5896.

88. Haribabu, J.; Srividya, S.; Umapathi, R.; Gayathri, D.; Venkatesu, P.; **Bhuvanesh**, N.; Karvembu, R., Enhanced anticancer activity of half-sandwich Ru(II)-p-cymene complex bearing heterocyclic hydrazone ligand. *Inorganic Chemistry Communications* **2020,** *119*, 108054.

89. Haribabu, J.; Srividya, S.; Mahendiran, D.; Gayathri, D.; Venkatramu, V.; **Bhuvanesh**, N.; Karvembu, R., Synthesis of palladium(II) complexes via Michael addition: Antiproliferative effects through ROS-mediated mitochondrial apoptosis and docking with SARS-CoV-2. *Inorganic Chemistry* **2020,** *59* (23), 17109-17122.

90. Haribabu, J.; Priyarega, S.; **Bhuvanesh**, N. S. P.; Karvembu, R., Synthesis and Molecular Structure of the Zinc(II) Complex Bearing an N, S Donor Ligand. *Journal of Structural Chemistry* **2020,** *61* (1), 66-72.

91. Haribabu, J.; Balachandran, C.; Tamizh, M. M.; Arun, Y.; **Bhuvanesh**, N. S. P.; Aoki, S.; Karvembu, R., Unprecedented formation of palladium(II)-pyrazole based thiourea from chromone thiosemicarbazone and [PdCl2(PPh3)2]: Interaction with biomolecules and apoptosis through mitochondrial signaling pathway. *Journal of Inorganic Biochemistry* **2020,** *205*, 110988.

92. Handy, J. V.; Luo, Y.; Andrews, J. L.; **Bhuvanesh**, N.; Banerjee, S., An Atomic View of Cation Diffusion Pathways from Single-Crystal Topochemical Transformations. *Angewandte Chemie, International Edition* **2020,** *59* (38), 16385-16392.

93. Handy Joseph, V.; Luo, Y.; Andrews Justin, L.; **Bhuvanesh**, N.; Banerjee, S.; Handy Joseph, V.; Luo, Y.; Andrews Justin, L.; Banerjee, S., An Atomic View of Cation Diffusion Pathways from Single-Crystal Topochemical Transformations. *Angewandte Chemie (International ed. in English)* **2020**.

94. Gopalakrishnan, M.; Viswanathan, T.; David, E.; Thirumoorthy, K.; **Bhuvanesh**, N. S. P.; Palanisami, N., Correction: Second-order nonlinear optical properties of eight-membered centrosymmetric cyclic borasiloxanes. *New Journal of Chemistry* **2020,** *44* (26), 11384.

95. Gopalakrishnan, D.; Sumithaa, C.; Kumar, A. M.; **Bhuvanesh**, N. S. P.; Ghorai, S.; Das, P.; Ganeshpandian, M., Encapsulation of a Ru(η6-p-cymene) complex of the antibacterial drug trimethoprim into a polydiacetylene-phospholipid assembly to enhance its in vitro anticancer and antibacterial activities. *New Journal of Chemistry* **2020,** *44* (46), 20047-20059.

96. Gao, W.-Y.; Sur, A.; Wang, C.-H.; Lorzing, G. R.; Antonio, A. M.; Taggart, G. A.; Ezazi, A. A.; **Bhuvanesh**, N.; Bloch, E. D.; Powers, D. C., Atomically Precise Crystalline Materials Based on Kinetically Inert Metal Ions via Reticular Mechanopolymerization. *Angewandte Chemie, International Edition* **2020,** *59* (27), 10878-10883.

97. Gao, W.-Y.; Sur, A.; Wang, C.-H.; Lorzing, G. R.; Antonio, A. M.; Ezazi, A. A.; **Bhuvanesh**, N.; Bloch, E. D.; Powers, D. C., Atomically precise crystalline materials based on kinetically inert metal ions via reticular mechanopolymerization. *ChemRxiv* **2020**, 1-10.

98. Foley, B. J.; Palit, C. M.; **Bhuvanesh**, N.; Zhou, J.; Ozerov, O. V., Concerted aryl-sulfur reductive elimination from PNP pincer-supported Co(III) and subsequent Co(I)/Co(III) comproportionation. *Chemical Science* **2020,** *11* (23), 6075-6084.

99. Foley, B. J.; **Bhuvanesh**, N.; Zhou, J.; Ozerov, O. V., Combined Experimental and Computational Studies of the Mechanism of Dehydrogenative Borylation of Terminal Alkynes Catalyzed by PNP Complexes of Iridium. *ACS Catalysis* **2020,** *10* (17), 9824-9836.

100. Cao, Y.; Shih, W.-C.; **Bhuvanesh**, N.; Ozerov, O. V., Reversible addition of ethylene to a pincer-based boryl-iridium unit with the formation of a bridging ethylidene. *Chemical Science* **2020,** *11* (40), 10998-11002.

101. Calderon-Diaz, A.; Arras, J.; Miller, E. T.; **Bhuvanesh**, N.; McMillen, C. D.; Stollenz, M., Ethylene-Bridged Tetradentate Bis(amidines): Supramolecular Assemblies through Hydrogen Bonding and Photoluminescence upon Deprotonation. *European Journal of Organic Chemistry* **2020,** *2020* (22), 3243-3250.

102. Bhatt, R.; Sharma, A. K.; Himanshi; **Bhuvanesh**, N.; Joshi, H., Palladium complexes of chalcogenoethanamine (S/Se) bidentate ligands: Applications in catalytic arylation of C-H and O-H bonds. *Polyhedron* **2020,** *185*, 114597.

103. Bhatt, R.; **Bhuvanesh**, N.; Sharma, K. N.; Joshi, H., Palladium Complexes of Thio/Seleno-Ether Containing N-Heterocyclic Carbenes: Efficient and Reusable Catalyst for Regioselective C-H Bond Arylation. *European Journal of Inorganic Chemistry* **2020,** *2020* (6), 532-540.

104. Balakrishnan, N.; Haribabu, J.; Dhanabalan, A. K.; Swaminathan, S.; Sun, S.; Dibwe, D. F.; **Bhuvanesh**, N.; Awale, S.; Karvembu, R., Thiosemicarbazone(s)-anchored water soluble mono- and bimetallic Cu(II) complexes: enzyme-like activities, biomolecular interactions, anticancer property and real-time live cytotoxicity. *Dalton Transactions* **2020,** *49* (27), 9411-9424.

105. Arp, F. F.; **Bhuvanesh**, N.; Blumel, J., Di(hydroperoxy)cycloalkane Adducts of Triarylphosphine Oxides: A Comprehensive Study Including Solid-State Structures and Association in Solution. *Inorganic Chemistry* **2020**, Ahead of Print.

106. Anjali, A.; Dheepika, R.; Imran, P. M.; **Bhuvanesh**, N. S. P.; Nagarajan, S., Ester-Flanked π-Extended Quinolines for Solution-Processable Ambipolar Organic Field-Effect Transistors. *ACS Applied Electronic Materials* **2020,** *2* (8), 2651-2661.

107. Vivekanand, T.; Vachan, B. S.; Karuppasamy, M.; Muthukrishnan, I.; Maheswari, C. U.; Nagarajan, S.; **Bhuvanesh**, N.; Sridharan, V., Diastereoselective ABB' Three-Component Synthesis of Highly Functionalized Spirooxindoles Bearing Five Consecutive Asymmetric Carbons. *Journal of Organic Chemistry* **2019,** *84* (7), 4009-4016.

108. Vinoth, P.; Karuppasamy, M.; Vachan, B. S.; Muthukrishnan, I.; Maheswari, C. U.; Nagarajan, S.; Pace, V.; Roller, A.; **Bhuvanesh**, N.; Sridharan, V., Palladium-Catalyzed Regioselective Syn-Chloropalladation-Olefin Insertion-Oxidative Chlorination Cascade: Synthesis of Dichlorinated Tetrahydroquinolines. *Organic Letters* **2019,** *21* (9), 3465-3469.

109. Swaminathan, S.; Haribabu, J.; Kalagatur, N. K.; Konakanchi, R.; Balakrishnan, N.; **Bhuvanesh**, N.; Karvembu, R., Synthesis and Anticancer Activity of [RuCl2(η6-arene)(aroylthiourea)] Complexes-High Activity against the Human Neuroblastoma (IMR-32) Cancer Cell Line. *ACS Omega* **2019,** *4* (4), 6245-6256.

110. Sung, S.; Li, X.; Wolf, L. M.; Meeder, J. R.; **Bhuvanesh**, N. S.; Grice, K. A.; Panetier, J. A.; Nippe, M., Synergistic Effects of Imidazolium-Functionalization on fac-Mn(CO)3 Bipyridine Catalyst Platforms for Electrocatalytic Carbon Dioxide Reduction. *Journal of the American Chemical Society* **2019,** *141* (16), 6569-6582.

111. Stollenz, M.; Joshi, H.; Ehnbom, A.; Fiedler, T.; Kharel, S.; Reibenspies, J. H.; **Bhuvanesh**, N.; Hall, M. B.; Gladysz, J. A., Platinum complexes containing or derived from olefinic phosphines P(X)((CH2)6CH=CH2)2 (X = OH, Ph, (CH2)6CH=CH2); ring closing metathesis, structures, and trans/cis isomerizations. *Polyhedron* **2019,** *158*, 325-333.

112. Sindhuja, D.; Vasanthakumar, P.; **Bhuvanesh**, N.; Karvembu, R., Catalytic Assessment of Copper(I) Complexes and a Polymer Analog towards the One-Pot Synthesis of Imines and Quinoxalines. *European Journal of Inorganic Chemistry* **2019,** *2019* (35), 3940-3941.

113. Sheeba, M. M.; Tamizh, M. M.; **Bhuvanesh**, N. S. P.; Karvembu, R., Water soluble Ru (II)-p-cymene complexes of chiral aroylthiourea ligands derived from unprotected D/L-alanine as proficient catalysts for asymmetric transfer hydrogenation of ketones. *Applied Organometallic Chemistry* **2019,** *33* (2), n/a.

114. O'Dea, C.; Ugarte Trejo, O.; Arras, J.; Ehnbom, A.; **Bhuvanesh**, N.; Stollenz, M., Ethylene-Bridged Hexadentate Bis(amidines) and Bis(amidinates) with Variable Binding Sites. *Journal of Organic Chemistry* **2019,** *84* (21), 14217-14226.

115. Neethu, K. S.; Eswaran, J.; Theetharappan, M.; **Bhuvanesh**, N. S. P.; Neelakantan, M. A.; Velusamy, K. M., Organoruthenium (II) complexes featuring pyrazole-linked Schiff base ligands: Crystal structure, DNA/BSA interactions, cytotoxicity and molecular docking. *Applied Organometallic Chemistry* **2019,** *33* (3), n/a.

116. Muralisankar, M.; Dheepika, R.; Haribabu, J.; Balachandran, C.; Aoki, S.; **Bhuvanesh**, N. S. P.; Nagarajan, S., Design, Synthesis, DNA/HSA Binding, and Cytotoxic Activity of Half-Sandwich Ru(II)-Arene Complexes Containing Triarylamine-Thiosemicarbazone Hybrids. *ACS Omega* **2019,** *4* (7), 11712-11723.

117. Mohanbabu, M.; Sathishkumar, P. N.; **Bhuvanesh**, N. S. P.; Karvembu, R.; Aravindhan, S., N-[(Pyridin-2-yl)methyl]thiophene-2-carboxamide. *IUCrData* **2019,** *4* (7), x190980.

118. Mariappan, A.; Rajaguru, K.; Muthusubramanian, S.; **Bhuvanesh**, N., A facile one pot synthesis of thiazolo[3,2-a]benzimidazole and pyran fused polyheterocyclic scaffolds. *Organic & Biomolecular Chemistry* **2019,** *17* (17), 4196-4199.

119. Mane, P. A.; Dey, S.; Pathak, A. K.; Kumar, M.; **Bhuvanesh**, N., Xantphos-Capped Pd(II) and Pt(II) Macrocycles of Aryldithiolates: Structural Variation and Catalysis in C-C Coupling Reaction. *Inorganic Chemistry* **2019,** *58* (5), 2965-2978.

120. Kumar, S. V.; Rani, G. U.; Divyalakshmi, M.; **Bhuvanesh**, N.; Muthusubramanian, S.; Perumal, S., Synthesis of benzosuberone-tethered spirooxindoles: 1,3-dipolar cycloaddition of azomethine ylide and arylidene benzosuberones. *Molecular Diversity* **2019,** *23* (3), 669-680.

121. Kharel, S.; Cluff, K. J.; **Bhuvanesh**, N.; Gladysz, J. A.; Bluemel, J., Structures and Dynamics of Secondary and Tertiary Alkylphosphine Oxides Adsorbed on Silica. *Chemistry - An Asian Journal* **2019,** *14* (15), 2704-2711.

122. Kharel, S.; **Bhuvanesh**, N.; Gladysz, J. A.; Blumel, J., New hydrogen bonding motifs of phosphine oxides with a silanediol, a phenol, and chloroform. *Inorganica Chimica Acta* **2019,** *490*, 215-219.

123. Kalaiyarasi, A.; Haribabu, J.; Gayathri, D.; Gomathi, K.; **Bhuvanesh**, N. S. P.; Karvembu, R.; Biju, V. M., Chemosensing, molecular docking and antioxidant studies of 8-aminoquinoline appended acylthiourea derivatives. *Journal of Molecular Structure* **2019,** *1185*, 450-460.

124. Jeyalakshmi, K.; Haribabu, J.; Balachandran, C.; Swaminathan, S.; **Bhuvanesh**, N. S. P.; Karvembu, R., Coordination Behavior of N,N',N''-Trisubstituted Guanidine Ligands in Their Ru-Arene Complexes: Synthetic, DNA/Protein Binding, and Cytotoxic Studies. *Organometallics* **2019,** *38* (4), 753-770.

125. Jeyalakshmi, K.; Haribabu, J.; Balachandran, C.; Narmatha, E.; **Bhuvanesh**, N. S. P.; Aoki, S.; Awale, S.; Karvembu, R., Highly active copper(I) complexes of aroylthiourea ligands against cancer cells - synthetic and biological studies. *New Journal of Chemistry* **2019,** *43* (7), 3188-3198.

126. Jerome, P.; Arafath, S. Y.; Haribabu, J.; **Bhuvanesh**, N. S. P.; Karvembu, R., Effect of 2-Bromopyridine Ancillary Ligand in the Catalysis of Pd(II)-NNN Pincer Complexes towards Suzuki-Miyaura Cross-Coupling Reaction. *ChemistrySelect* **2019,** *4* (7), 2237-2241.

127. Jebastin Andrews, S. G.; Benita Jeba Silviya, S.; **Bhuvanesh**, N. S. P.; Janet Sylvia Jaba Rose, J.; Winfred Jebaraj, J.; Balakrishnan, C., Crystal structure and evaluating C-H···π (aryl/chelate) interactions in bis(2-{[(2-hydroxyethyl)imino]-methyl}-4,6-diiodophenolato)-palladium(II) Schiff base complex derived from (E)-2-(((2-hydroxyethyl)imino)methyl)-4,6-diiodophenol. *Inorganica Chimica Acta* **2019,** *498*, 119118.

128. Harisha, M. B.; Dhanalakshmi, P.; Suresh, R.; Kumar, R. R.; Muthusubramanian, S.; **Bhuvanesh**, N., TMSOTf-Catalysed Synthesis of 2,4,5-Trisubstituted Imidazoles from Vinyl Azides and Nitriles. *ChemistrySelect* **2019,** *4* (10), 2954-2958.

129. Gopalakrishnan, M.; Viswanathan, T.; David, E.; Thirumoorthy, K.; **Bhuvanesh**, N. S. P.; Palanisami, N., Second-order nonlinear optical properties of eight-membered centrosymmetric cyclic borasiloxanes. *New Journal of Chemistry* **2019,** *43* (27), 10948-10958.

130. Gopalakrishnan, D.; Srinath, S.; Baskar, B.; **Bhuvanesh**, N. S. P.; Ganeshpandian, M., Biological and catalytic evaluation of Ru(II)-p-cymene complexes of Schiff base ligands: Impact of ligand appended moiety on photo-induced DNA and protein cleavage, cytotoxicity and C-H activation. *Applied Organometallic Chemistry* **2019,** *33* (3), n/a.

131. Gandhaveeti, R.; Konakanchi, R.; Jyothi, P.; **Bhuvanesh**, N. S. P.; Anandaram, S., Unusual coordination mode of aroyl/acyl thiourea ligands and their π-arene ruthenium (II) piano-stool complexes: Synthesis, molecular geometry, theoretical studies and biological applications. *Applied Organometallic Chemistry* **2019,** *33* (5), n/a.

132. Eswaran, J.; Sankar, N. K.; **Bhuvanesh**, N. S. P.; Velusamy, K. M., Ruthenium hydrazone complexes with 1:1 and 1:2 metal-ligand stoichiometry: a comparison of biomolecular interactions and in vitro cytotoxicities. *Transition Metal Chemistry (Dordrecht, Netherlands)* **2019,** *44* (4), 369-382.

133. Dhivya, R.; Kathiresan, S.; Vigneshwar, M.; Ranjani, J.; Rajendhran, J.; **Bhuvanesh**, N. S. P.; Annaraj, J., Bioactive mono/bis (carboxyamide) based Co (II), Ni (II) and Cu (II) complexes: Synthesis, Characterization, DNA binding and Anticancer Potentials. *Applied Organometallic Chemistry* **2019,** *33* (1), n/a.

134. Dheepika, R.; Mohamed Imran, P.; **Bhuvanesh**, N. S. P.; Nagarajan, S., Solution-processable unsymmetrical triarylamines: Towards high mobility and ON/OFF ratio in bottom-gated OFETs. *Chemistry - A European Journal* **2019,** *25* (66), 15155-15163.

135. Dasgupta, A.; Dey, D.; Ghosh, D.; Lai, T. K.; **Bhuvanesh**, N.; Dolui, S.; Velayutham, R.; Acharya, K., Astrakurkurone, a Sesquiterpenoid from Wild Edible Mushroom, Targets Liver Cancer Cells by Modulating Bcl-2 Family Proteins. *IUBMB Life* **2019,** *71* (7), 992-1002.

136. Cao, Y.; Shih, W.-C.; **Bhuvanesh**, N.; Ozerov, O. V., Silver halide complexes of a borane/bis(phosphine) ligand. *Dalton Transactions* **2019,** *48* (27), 9959-9961.

137. Basheer, S. M.; **Bhuvanesh**, N. S. P.; Sreekanth, A., Analytical and computational investigation on host-guest interaction of cyclohexyl based thiosemicarbazones: Construction of molecular logic gates using multi-ion detection. *Materials Science & Engineering, C: Materials for Biological Applications* **2019,** *105*, 110127.

138. Barlog, M.; Kulai, I.; Ji, X.; **Bhuvanesh**, N.; Dey, S.; Sliwinski, E. P.; Bazzi, H. S.; Fang, L.; Al-Hashimi, M., Synthesis, characterization and crystal structures of novel fluorinated di(thiazolyl)benzene derivatives. *Organic Chemistry Frontiers* **2019,** *6* (6), 780-790.

139. Balamurugan, G.; Balaji, S.; Ramesh, R.; **Bhuvanesh**, N. S. P., Synthesis and Structures of Arene Ruthenium (II)-NHC Complexes: Efficient Catalytic α-alkylation of ketones via Hydrogen Auto Transfer Reaction. *Applied Organometallic Chemistry* **2019,** *33* (1), n/a.

140. Balakrishnan, N.; Haribabu, J.; Anantha Krishnan, D.; Swaminathan, S.; Mahendiran, D.; **Bhuvanesh**, N. S. P.; Karvembu, R., Zinc(II) complexes of indole thiosemicarbazones: DNA/protein binding, molecular docking and in vitro cytotoxicity studies. *Polyhedron* **2019,** *170*, 188-201.

141. Arp, F. F.; **Bhuvanesh**, N.; Blumel, J., Hydrogen peroxide adducts of triarylphosphine oxides. *Dalton Transactions* **2019,** *48* (38), 14312-14325.

142. Arp, F. F.; Ahn, S. H.; **Bhuvanesh**, N.; Blumel, J., Selective synthesis and stabilization of peroxides via phosphine oxides. *New Journal of Chemistry* **2019,** *43* (44), 17174-17181.

143. Arnet, N. A.; **Bhuvanesh**, N.; Darensbourg, M. Y., Proton affinity studies of nickel N2S2 complexes and control of aggregation. *JBIC, Journal of Biological Inorganic Chemistry* **2019,** *24* (6), 909-917.

144. Aneesrahman, K. N.; Ramaiah, K.; Rohini, G.; Stefy, G. P.; **Bhuvanesh**, N. S. P.; Sreekanth, A., Synthesis and characterisations of copper(II) complexes of 5-methoxyisatin thiosemicarbazones: Effect of N-terminal substitution on DNA/protein binding and biological activities. *Inorganica Chimica Acta* **2019,** *492*, 131-141.

145. Amini, H.; Baranova, Z.; Weisbach, N.; Gauthier, S.; **Bhuvanesh**, N.; Reibenspies, J. H.; Gladysz, J. A., Syntheses, Structures, and Spectroscopic Properties of 1,10-Phenanthroline-Based Macrocycles Threaded by PtC8Pt, PtC12Pt, and PtC16Pt Axles: Metal-Capped Rotaxanes as Insulated Molecular Wires. *Chemistry - A European Journal* **2019,** *25* (69), 15896-15914.

146. Zhang, J.; Foley, B. J.; **Bhuvanesh**, N.; Zhou, J.; Janzen, D. E.; Whited, M. T.; Ozerov, O. V., Synthesis and Reactivity of Pincer-Type Cobalt Silyl and Silylene Complexes. *Organometallics* **2018,** *37* (21), 3956-3962.

147. Sindhuja, D.; Vasanthakumar, P.; **Bhuvanesh**, N. S. P.; Karvembu, R., An Acylthiourea Ligated Fe(II) Complex on Silica Nanoparticles for Transfer Hydrogenation of Carbonyl Compounds. *Industrial & Engineering Chemistry Research* **2018,** *57* (43), 14386-14393.

148. Sil, D.; Martinez, Z.; Ding, S.; **Bhuvanesh**, N.; Darensbourg, D. J.; Hall, M. B.; Darensbourg, M. Y., Cyanide Docking and Linkage Isomerism in Models for the Artificial [FeFe]-Hydrogenase Maturation Process. *Journal of the American Chemical Society* **2018,** *140* (31), 9904-9911.

149. Sheeba, M. M.; **Bhuvanesh**, N. S. P.; Karvembu, R., Piano-stool Ru(II)-benzene complexes bearing D/L-alanine derived chiral aroylthiourea ligands for asymmetric transfer hydrogenation of ketones in water. *Journal of Chemical Sciences (Berlin, Germany)* **2018,** *130* (12), 1-8.

150. Sathishkumar, P. N.; Raveendran, N.; **Bhuvanesh**, N. S. P.; Karvembu, R., Chemoselective transfer hydrogenation of nitroarenes, ketones and aldehydes using acylthiourea based Ru(II)(p-cymene) complexes as precatalysts. *Journal of Organometallic Chemistry* **2018,** *876*, 57-65.

151. Rohini, G.; Ramaiah, K.; Aneesrahman, K. N.; Aryasenan, M. C.; **Bhuvanesh**, N. S. P.; Reddy, K. L.; Sreekanth, A., Biological evaluation, DNA/protein-binding aptitude of novel dibenzosuberene appended palladium (II)-thiourea complexes. *Applied Organometallic Chemistry* **2018,** *32* (12), n/a.

152. Rohini, G.; Haribabu, J.; Sheeba, M. M.; Aneesrahman, K. N.; **Bhuvanesh**, N. S. P.; Balachandran, C.; Karvembu, R.; Sreekanth, A., Ru(II)-η6-benzene Complexes of Dibenzosuberenyl Appended Aroyl/Acylthiourea Ligands: In vitro Biomolecular Interaction Studies and Catalytic Transfer Hydrogenation. *ChemistrySelect* **2018,** *3* (1), 18-28.

153. Rohini, G.; Haribabu, J.; Aneesrahman, K. N.; **Bhuvanesh**, N. S. P.; Ramaiah, K.; Karvembu, R.; Sreekanth, A., Half-sandwich Ru(II)(η6-p-cymene) complexes bearing N-dibenzosuberenyl appended thiourea for catalytic transfer hydrogenation and in vitro anticancer activity. *Polyhedron* **2018,** *152*, 147-154.

154. Ramachandran, E.; Gandin, V.; Bertani, R.; Sgarbossa, P.; Natarajan, K.; **Bhuvanesh**, N. S. P.; Venzo, A.; Zoleo, A.; Glisenti, A.; Dolmella, A.; Albinati, A.; Marzano, C., Synthesis, characterization and cytotoxic activity of novel copper(II) complexes with aroylhydrazone derivatives of 2-Oxo-1,2-dihydrobenzo[h]quinoline-3-carbaldehyde. *Journal of Inorganic Biochemistry* **2018,** *182*, 18-28.

155. Priebe, A.; Hunke, M.; Tonello, R.; Sonawane, Y.; Berta, T.; Natarajan, A.; **Bhuvanesh**, N.; Pattabiraman, M.; Chandra, S., Ferulic acid dimer as a non-opioid therapeutic for acute pain. *Journal of Pain Research* **2018,** *11*, 1075-1085.

156. Mahendiran, D.; Pravin, N.; **Bhuvanesh**, N. S. P.; Kumar, R. S.; Viswanathan, V.; Velmurugan, D.; Rahiman, A. K., Bis(thiosemicarbazone)copper(I) Complexes as Prospective Therapeutic Agents: Interaction with DNA/BSA Molecules, and In Vitro and In Vivo Anti-Proliferative Activities. *ChemistrySelect* **2018,** *3* (25), 7100-7111.

157. Mahendiran, D.; Amuthakala, S.; **Bhuvanesh**, N. S. P.; Kumar, R. S.; Rahiman, A. K., Copper complexes as prospective anticancer agents: in vitro and in vivo evaluation, selective targeting of cancer cells by DNA damage and S phase arrest. *RSC Advances* **2018,** *8* (30), 16973-16990.

158. Luu, Q. H.; Lewis, K. G.; Banerjee, A.; **Bhuvanesh**, N.; Gladysz, J. A., The robust, readily available cobalt(III) trication [Co(NH2CHPhCHPhNH2)3]3+ is a progenitor of broadly applicable chirality and prochirality sensing agents. *Chemical Science* **2018,** *9* (22), 5087-5099.

159. Latendresse, T. P.; Vieru, V.; Wilkins, B. O.; **Bhuvanesh**, N. S.; Chibotaru, L. F.; Nippe, M., Magnetic Properties of a Terbium-[1]Ferrocenophane Complex: Analogies Between Lanthanide-Ferrocenophane and Lanthanide-Bis-phthalocyanine Complexes. *Angewandte Chemie, International Edition* **2018,** *57* (27), 8164-8169.

160. Kowsalya, P.; **Bhuvanesh**, N. S. P.; Neelakantan, M. A., Chemical Reactivity and Quantifying the Intra- and Intermolecular Interactions in Zwitterionic Compounds. *ChemistrySelect* **2018,** *3* (7), 2045-2052.

161. Kosanovich, A. J.; Komatsu, C. H.; **Bhuvanesh**, N.; Perez, L. M.; Ozerov, O. V., Dearomatization of the PCP Pincer Ligand in a ReV Oxo Complex. *Chemistry - A European Journal* **2018,** *24* (52), 13754-13757.

162. Kosanovich, A. J.; Jordan, A. M.; **Bhuvanesh**, N.; Ozerov, O. V., Synthesis and characterization of rhodium, iridium, and palladium complexes of a diarylamido-based PNSb pincer ligand. *Dalton Transactions* **2018,** *47* (33), 11619-11624.

163. Kharel, S.; Joshi, H.; **Bhuvanesh**, N.; Gladysz, J. A., Syntheses, Structures, and Thermal Properties of Gyroscope-like Complexes Consisting of PtCl2 Rotators Encased in Macrocyclic Dibridgehead Diphosphines P((CH2)n)3P with Extended Methylene Chains (n = 20/22/30) and Isomers Thereof. *Organometallics* **2018,** *37* (18), 2991-3000.

164. Kharel, S.; Jia, T.; **Bhuvanesh**, N.; Reibenspies Joseph, H.; Blumel, J.; Gladysz John, A., A Nontemplated Route to Macrocyclic Dibridgehead Diphosphorus Compounds: Crystallographic Characterization of a "Crossed-Chain" Variant of in/out Stereoisomers. *Chemistry, an Asian journal* **2018**.

165. Kharel, S.; Jia, T.; **Bhuvanesh**, N.; Reibenspies, J. H.; Bluemel, J.; Gladysz, J. A., A Nontemplated Route to Macrocyclic Dibridgehead Diphosphorus Compounds: Crystallographic Characterization of a "Crossed-Chain" Variant of in/out Stereoisomers. *Chemistry - An Asian Journal* **2018,** *13* (18), 2632-2640.

166. Kashyap, A.; Bokosike, T. K.; **Bhuvanesh**, N.; Pattabiraman, M., Stereo- and regioselective photocycloaddition of extended alkenes using γ-cyclodextrin. *Organic & Biomolecular Chemistry* **2018,** *16* (38), 6870-6875.

167. Joshi, H.; Kharel, S.; Ehnbom, A.; Skopek, K.; Hess, G. D.; Fiedler, T.; Hampel, F.; **Bhuvanesh**, N.; Gladysz, J. A., Three-Fold Intramolecular Ring Closing Alkene Metatheses of Square Planar Complexes with cis Phosphorus Donor Ligands P(X(CH2)mCH=CH2)3 (X = -, m = 5-10; X = O, m = 3-5): Syntheses, Structures, and Thermal Properties of Macrocyclic Dibridgehead Diphosphorus Complexes. *Journal of the American Chemical Society* **2018,** *140* (27), 8463-8478.

168. Joshi, H.; Kharel, S.; **Bhuvanesh**, N.; Gladysz, J. A., Synthesis, structure, and reactivity of doubly trans-spanning bis(dialkyl selenide) complexes; a new route to diselenamacrocycles via alkene metathesis in metal coordination spheres. *Journal of Organometallic Chemistry* **2018,** *875*, 80-87.

169. Haribabu, J.; Tamizh, M. M.; Balachandran, C.; Arun, Y.; **Bhuvanesh**, N. S. P.; Endo, A.; Karvembu, R., Synthesis, structures and mechanistic pathways of anticancer activity of palladium(II) complexes with indole-3-carbaldehyde thiosemicarbazones. *New Journal of Chemistry* **2018,** *42* (13), 10818-10832.

170. Haribabu, J.; Sabapathi, G.; Tamizh, M. M.; Balachandran, C.; **Bhuvanesh**, N. S. P.; Venuvanalingam, P.; Karvembu, R., Water-Soluble Mono- and Binuclear Ru(η6-p-cymene) Complexes Containing Indole Thiosemicarbazones: Synthesis, DFT Modeling, Biomolecular Interactions, and In Vitro Anticancer Activity through Apoptosis. *Organometallics* **2018,** *37* (8), 1242-1257.

171. Ghosh, P.; Quiroz, M.; Pulukkody, R.; **Bhuvanesh**, N.; Darensbourg, M. Y., Bridging cyanides from cyanoiron metalloligands to redox-active dinitrosyl iron units. *Dalton Transactions* **2018,** *47* (34), 11812-11819.

172. Ghosh, P.; Ding, S.; Quiroz, M.; **Bhuvanesh**, N.; Hsieh, C.-H.; Palacios, P. M.; Pierce, B. S.; Darensbourg, M. Y.; Hall, M. B., Structural and Electronic Responses to the Three Redox Levels of Fe(NO)N2S2-Fe(NO)2. *Chemistry - A European Journal* **2018,** *24* (60), 16003-16008.

173. Dey, S.; Vivekananda, K. V.; **Bhuvanesh**, N., Supramolecular Pt and Pd Complexes of 4,4'-Dipyridylditelluride/Diselenide Ligands through Self-Assembly. *European Journal of Inorganic Chemistry* **2018,** *2018* (31), 3579-3586.

174. Chithiravel, R.; Rajaguru, K.; Muthusubramanian, S.; **Bhuvanesh**, N., Characterization of the major isomers of substituted tetrahydro-2H-pyrans from 1,3,5-triarylpentane-1,5-diols by p-toluenesulfonic acid treatment. *Journal of Molecular Structure* **2018,** *1156*, 684-689.

175. Burns, C. P.; Yang, X.; Wofford, J. D.; **Bhuvanesh**, N. S.; Hall, M. B.; Nippe, M., Structure and Magnetization Dynamics of Dy-Fe and Dy-Ru Bonded Complexes. *Angewandte Chemie, International Edition* **2018,** *57* (27), 8144-8148.

176. Burns, C. P.; Yang, X.; Sung, S.; Wofford, J. D.; **Bhuvanesh**, N. S.; Hall, M. B.; Nippe, M., Towards understanding of lanthanide-transition metal bonding: investigations of the first Ce-Fe bonded complex. *Chemical Communications (Cambridge, United Kingdom)* **2018,** *54* (77), 10893-10896.

177. Balachandran, C.; Haribabu, J.; Jeyalakshmi, K.; **Bhuvanesh**, N. S. P.; Karvembu, R.; Emi, N.; Awale, S., Nickel(II) bis(isatin thiosemicarbazone) complexes induced apoptosis through mitochondrial signaling pathway and G0/G1 cell cycle arrest in IM-9 cells. *Journal of Inorganic Biochemistry* **2018,** *182*, 208-221.

178. Aneesrahman, K. N.; Rohini, G.; **Bhuvanesh**, N. S. P.; Sundararaj, S.; Musthafa, M.; Sreekanth, A., In Vitro Biomolecular Interaction Studies and Cytotoxic Activities of Newly Synthesised Copper(II) Complexes Bearing 2-Hydroxynaphthaldehyde-Based Thiosemicarbazone. *ChemistrySelect* **2018,** *3* (28), 8118-8130.

179. Ahn, S. H.; Lindhardt, D.; **Bhuvanesh**, N.; Blumel, J., Di(hydroperoxy)cycloalkanes Stabilized via Hydrogen Bonding by Phosphine Oxides: Safe and Efficient Baeyer-Villiger Oxidants. *ACS Sustainable Chemistry & Engineering* **2018,** *6* (5), 6829-6840.

180. Zhang, T.; **Bhuvanesh**, N.; Gladysz, J. A., A Quest for Atropisomerism in Cojoined Square-Planar Metal Complexes: Synthesis and Structures of Sterically Congested Diplatinum Ethynediyl Adducts. *European Journal of Inorganic Chemistry* **2017,** *2017* (6), 1017-1025.

181. Vignesh, A.; **Bhuvanesh**, N. S. P.; Dharmaraj, N., Conversion of Arylboronic Acids to Tetrazoles Catalyzed by ONO Pincer-Type Palladium Complex. *Journal of Organic Chemistry* **2017,** *82* (2), 887-892.

182. Senthilkumar, K.; Thirumoorthy, K.; Vinitha, G.; Soni, K.; **Bhuvanesh**, N. S. P.; Palanisami, N., Synthesis and characterization of d10 metal complexes of 3-Me-5-FcPz: Structural, theoretical and third order nonlinear optical properties. *Journal of Molecular Structure* **2017,** *1128*, 36-43.

183. Saranya, S.; Haribabu, J.; Karvembu, R.; **Bhuvanesh** Nattamai, S. P.; Gayathri, D., Crystal structures of the Schiff base derivatives (E)-N'-[(1H-indol-3-yl)methyl-idene]isonicotino-hydrazide ethanol monosolvate and (E)-N-methyl-2-[1-(2-oxo-2H-chromen-3-yl)ethyl-idene]hydrazinecarbo-thio-amide. *Acta crystallographica. Section E, Crystallographic communications* **2017,** *73* (Pt 4), 594-597.

184. Saranya, S.; Haribabu, J.; **Bhuvanesh**, N. S. P.; Karvembu, R.; Gayathri, D., Crystal structures of the Schiff base derivatives (E)-N'-[(1H-indol-3-yl)methylidene]isonicotinohydrazide ethanol monosolvate and (E)-N-methyl-2-[1-(2-oxo-2H-chromen-3-yl)ethylidene]hydrazinecarbothioamide. *Acta Crystallographica, Section E: Crystallographic Communications* **2017,** *73* (4), 594-597.

185. Rajaguru, K.; Mariappan, A.; Muthusubramanian, S.; **Bhuvanesh**, N., Divergent reactivity of α-azidochalcones with metal β-diketonates: tunable synthesis of substituted pyrroles and indoles. *Organic Chemistry Frontiers* **2017,** *4* (1), 124-129.

186. Rahman, K. N. A.; Haribabu, J.; Balachandran, C.; **Bhuvanesh**, N. S. P.; Karvembu, R.; Sreekanth, A., Copper, nickel and zinc complexes of 3-acetylcoumarin thiosemicarbazone: Synthesis, characterization and in vitro evaluation of cytotoxicity and DNA/protein binding properties. *Polyhedron* **2017,** *135*, 26-35.

187. Pulukkody, R.; Chupik, R. B.; Montalvo, S. K.; Khan, S.; **Bhuvanesh**, N.; Lim, S.-M.; Darensbourg, M. Y., Toward biocompatible dinitrosyl iron complexes: sugar-appended thiolates. *Chemical Communications (Cambridge, United Kingdom)* **2017,** *53* (6), 1180-1183.

188. Muralisankar, M.; Sreedharan, R.; Sujith, S.; **Bhuvanesh**, N. S. P.; Sreekanth, A., N(1)-pentyl isatin-N(4)-methyl-N(4)-phenyl thiosemicarbazone (PITSc) as a corrosion inhibitor on mild steel in HCl. *Journal of Alloys and Compounds* **2017,** *695*, 171-182.

189. Muralisankar, M.; Basheer, S. M.; Haribabu, J.; **Bhuvanesh**, N. S. P.; Karvembu, R.; Sreekanth, A., An investigation on the DNA/protein binding, DNA cleavage and in vitro anticancer properties of SNO pincer type palladium(II) complexes with N-substituted isatin thiosemicarbazone ligands. *Inorganica Chimica Acta* **2017,** *466*, 61-70.

190. Mukherjee, T.; Biswas, S.; Ehnbom, A.; Ghosh, S. K.; El-Zoghbi, I.; **Bhuvanesh**, N.; Bazzi, H. S.; Gladysz, J. A., Syntheses, structures, and stabilities of aliphatic and aromatic fluorous iodine(I) and iodine(III) compounds: the role of iodine Lewis basicity. *Beilstein Journal of Organic Chemistry* **2017,** *13*, 2486-2501.

191. Lunsford, A. M.; Goldstein, K. F.; Cohan, M. A.; Denny, J. A.; **Bhuvanesh**, N.; Ding, S.; Hall, M. B.; Darensbourg, M. Y., Comparisons of MN2S2vs. bipyridine as redox-active ligands to manganese and rhenium in (L-L)M'(CO)3Cl complexes. *Dalton Transactions* **2017,** *46* (16), 5175-5182.

192. Loganathan, R.; Ganeshpandian, M.; **Bhuvanesh**, N. S. P.; Palaniandavar, M.; Murugananthan, A.; Ghosh, S. K.; Riyasdeen, A.; Akbarsha, M. A., DNA and protein binding, double-strand DNA cleavage and cytotoxicity of mixed ligand copper(II) complexes of the antibacterial drug nalidixic acid. *Journal of Inorganic Biochemistry* **2017,** *174*, 1-13.

193. Latendresse, T. P.; **Bhuvanesh**, N. S.; Nippe, M., Slow Magnetic Relaxation in a Lanthanide-[1]Metallocenophane Complex. *Journal of the American Chemical Society* **2017,** *139* (24), 8058-8061.

194. Latendresse, T. P.; **Bhuvanesh**, N. S.; Nippe, M., Hard Single-Molecule Magnet Behavior by a Linear Trinuclear Lanthanide-[1]Metallocenophane Complex. *Journal of the American Chemical Society* **2017,** *139* (42), 14877-14880.

195. Kumar, M.; Padmini, V.; **Bhuvanesh**, N., Stereo-selective green protocol for the synthesis of highly substituted 1-phenyl-tetrahydro indeno[1,2-b]pyrroles. *Research on Chemical Intermediates* **2017,** *43* (8), 4517-4530.

196. Kirubavathy, S. J.; Velmurugan, R.; Karvembu, R.; **Bhuvanesh**, N. S. P.; Enoch, I. V. M. V.; Selvakumar, P. M.; Premnath, D.; Chitra, S., Structural and molecular docking studies of biologically active mercaptopyrimidine Schiff bases. *Journal of Molecular Structure* **2017,** *1127*, 345-354.

197. Kharel, S.; Joshi, H.; Bierschenk, S.; Stollenz, M.; Taher, D.; **Bhuvanesh**, N.; Gladysz, J. A., Homeomorphic Isomerization as a Design Element in Container Molecules; Binding, Displacement, and Selective Transport of MCl2 Species (M = Pt, Pd, Ni). *Journal of the American Chemical Society* **2017,** *139* (6), 2172-2175.

198. Kathiresan, S.; Annaraj, J.; **Bhuvanesh**, N. S. P., Cu(II) and Ni(II) Complexes of Anthracene-Affixed Schiff Base: A Conflict between Covalent and Stacking Interactions with DNA Bases. *ChemistrySelect* **2017,** *2* (20), 5475-5484.

199. Jeyalakshmi, K.; Haribabu, J.; Balachandran, C.; **Bhuvanesh**, N. S. P.; Emi, N.; Karvembu, R., Synthesis of Ru(II)-benzene complexes containing aroylthiourea ligands, and their binding with biomolecules and in vitro cytotoxicity through apoptosis. *New Journal of Chemistry* **2017,** *41* (7), 2672-2686.

200. Jerome, P.; Sathishkumar, P. N.; **Bhuvanesh**, N. S. P.; Karvembu, R., Towards phosphine-free Pd(II) pincer complexes for catalyzing Suzuki-Miyaura cross-coupling reaction in aqueous medium. *Journal of Organometallic Chemistry* **2017,** *845*, 115-124.

201. Jayanthi, E.; Venkataramana, M.; Neethu, S.; **Bhuvanesh**, N. S. P.; Dharmaraj, N., Biomolecular interaction and in vitro cytotoxicity of ruthenium complexes containing heterocyclic hydrazone. Is methanol a non-innocent solvent to influence the oxidation state of the metal and ligation of hydrazone? *Polyhedron* **2017,** *132*, 39-52.

202. Haribabu, J.; Ranade, D. S.; **Bhuvanesh**, N. S. P.; Kulkarni, P. P.; Karvembu, R., Ru(II)-p-cymene Thiosemicarbazone Complexes as Inhibitors of Amyloid β (Aβ) Peptide Aggregation and Aβ-Induced Cytotoxicity. *ChemistrySelect* **2017,** *2* (35), 11638-11644.

203. Haribabu, J.; Jeyalakshmi, K.; Arun, Y.; **Bhuvanesh**, N. S. P.; Perumal, P. T.; Karvembu, R., Synthesis of Ni(II) complexes bearing indole-based thiosemicarbazone ligands for interaction with biomolecules and some biological applications. *JBIC, Journal of Biological Inorganic Chemistry* **2017,** *22* (4), 461-480.

204. Gunasekaran, N.; **Bhuvanesh**, N. S. P.; Karvembu, R., Synthesis, characterization and catalytic oxidation property of copper(I) complexes containing monodentate acylthiourea ligands and triphenylphosphine. *Polyhedron* **2017,** *122*, 39-45.

205. Gopalakrishnan, D.; Ganeshpandian, M.; Loganathan, R.; **Bhuvanesh**, N. S. P.; Sabina, X. J.; Karthikeyan, J., Water soluble Ru(II)-arene complexes of the antidiabetic drug metformin: DNA and protein binding, molecular docking, cytotoxicity and apoptosis-inducing activity. *RSC Advances* **2017,** *7* (60), 37706-37719.

206. Ghosh, P.; Quiroz, M.; Wang, N.; **Bhuvanesh**, N.; Darensbourg, M. Y., Complexes of MN2S2·Fe(η5-C5R5)(CO) as platform for exploring cooperative heterobimetallic effects in HER electrocatalysis. *Dalton Transactions* **2017,** *46* (17), 5617-5624.

207. Ghosh, P.; Ding, S.; Chupik, R. B.; Quiroz, M.; Hsieh, C.-H.; **Bhuvanesh**, N.; Hall, M. B.; Darensbourg, M. Y., A matrix of heterobimetallic complexes for interrogation of hydrogen evolution reaction electrocatalysts. *Chemical Science* **2017,** *8* (12), 8291-8300.

208. Gandhimathi, S.; Theetharappan, M.; **Bhuvanesh**, N. S. P.; Neelakantan, M. A., Crystal structure, theoretical and experimental electronic structure and DNA/BSA protein interactions of nickel(II) N2O2 tetradentate Schiff base complexes. *Polyhedron* **2017,** *138*, 88-102.

209. Dickie, C. M.; Laughlin, A. L.; Wofford, J. D.; **Bhuvanesh**, N. S.; Nippe, M., Transition metal redox switches for reversible "on/off" and "slow/fast" single-molecule magnet behaviour in dysprosium and erbium bis-diamidoferrocene complexes. *Chemical Science* **2017,** *8* (12), 8039-8049.

210. Dey, S.; Zhang, T.; **Bhuvanesh**, N.; Gladysz, J. A., Syntheses and structures of square planar diplatinum butadiynediyl complexes with two different monophosphine ligands on each terminus; probing the feasibility of a new type of inorganic atropisomerism. *Journal of Organometallic Chemistry* **2017,** *849-850*, 237-255.

211. Dey, S.; Vivekananda, K. V.; Wadawale, A. P.; Jain, V. K.; **Bhuvanesh**, N., Reactivity of 4-Pyridyltellurolate with Pd(II)/Pt(II) Complexes. *ChemistrySelect* **2017,** *2* (18), 5073-5079.

212. Burns, C. P.; Wilkins, B. O.; Dickie, C. M.; Latendresse, T. P.; Vernier, L.; Vignesh, K. R.; **Bhuvanesh**, N. S.; Nippe, M., A comparative study of magnetization dynamics in dinuclear dysprosium complexes featuring bridging chloride or trifluoromethanesulfonate ligands. *Chemical Communications (Cambridge, United Kingdom)* **2017,** *53* (60), 8419-8422.

213. Basheer, S. M.; Haribabu, J.; **Bhuvanesh**, N. S. P.; Karvembu, R.; Sreekanth, A., Naphthalenyl appended semicarbazone as "turn on" fluorescent chemosensor for selective recognition of fluoride ion. *Journal of Molecular Structure* **2017,** *1145*, 347-355.

214. Baranova, Z.; Amini, H.; Neupane, M.; Garrett, S. C.; Ehnbom, A.; **Bhuvanesh**, N.; Reibenspies, J. H.; Gladysz, J. A., Syntheses, Structural Studies, and Copper Iodide Complexes of Macrocycles Derived from Williamson Ether Syntheses Involving 2,9-Bis(4-hydroxyphenyl)-1,10-phenanthroline, α,ω-Dibromides, and Resorcinol or 2,7-Dihydroxynaphthalene. *Australian Journal of Chemistry* **2017,** *70* (4), 373-386.

215. Baker, J. H.; **Bhuvanesh**, N.; Blumel, J., Tetraphosphines with tetra(biphenyl)silane and -stannane cores as rigid scaffold linkers for immobilized catalysts. *Journal of Organometallic Chemistry* **2017,** *847*, 193-203.

216. Ambethkar, S.; Vellimalai, M.; Padmini, V.; **Bhuvanesh**, N., Iodine-mediated C-N and C-S bond formation: regioselective synthesis of benzo[4,5]imidazo[2,1-b]thiazoles. *New Journal of Chemistry* **2017,** *41* (1), 75-80.

217. Ambethkar, S.; Kalaiselvi, M.; Padmini, V.; **Bhuvanesh**, N., Synthesis of 3-Substituted Quinazolinones via C-N and C-C bond Cleavage of Enaminone. *ChemistrySelect* **2017,** *2* (19), 5329-5332.

218. Ahn, S. H.; **Bhuvanesh**, N.; Bluemel, J., Di(hydroperoxy)alkane Adducts of Phosphine Oxides: Safe, Solid, Stoichiometric, and Soluble Oxidizing Agents. *Chemistry - A European Journal* **2017,** *23* (67), 16919.

219. Tsunoda, M.; Fleischmann, M.; Jones, J. S.; **Bhuvanesh**, N.; Scheer, M.; Gabbai, F. P., Supramolecular aggregation of Ni(salen) with (C6F5)2Hg and [o-C6F4Hg]3. *Dalton Transactions* **2016,** *45* (12), 5045-5051.

220. Taher, D.; Nawara-Hultzsch, A. J.; **Bhuvanesh**, N.; Hampel, F.; Gladysz, J. A., Mono- and disubstitution reactions of gyroscope like complexes derived from Cl-Pt-Cl rotators within cage like dibridgehead diphosphine ligands. *Journal of Organometallic Chemistry* **2016,** *821*, 136-141.

221. Stollenz, M.; Raymond, J. E.; Perez, L. M.; Wiederkehr, J.; **Bhuvanesh**, N., Highly Luminescent Linear Complex Arrays of up to Eight Cuprous Centers. *Chemistry - A European Journal* **2016,** *22* (7), 2396-2405.

222. Shih, W.-C.; Gu, W.; MacInnis, M. C.; Timpa, S. D.; **Bhuvanesh**, N.; Zhou, J.; Ozerov, O. V., Facile Insertion of Rh and Ir into a Boron-Phenyl Bond, Leading to Boryl/Bis(phosphine) PBP Pincer Complexes. *Journal of the American Chemical Society* **2016,** *138* (7), 2086-2089.

223. Sheeba, M. M.; Tamizh, M. M.; Babu, S. G.; **Bhuvanesh**, N. S. P.; Karvembu, R., Ru(II)-p-cymene complexes containing esters of chiral D/L-phenylalanine derived aroylthiourea ligands for enantioselective reduction of pro-chiral ketones. *RSC Advances* **2016,** *6* (72), 68494-68503.

224. Shanmugapriya, J.; Rajaguru, K.; Sivaraman, G.; Muthusubramanian, S.; **Bhuvanesh**, N., Boranil dye based "turn-on" fluorescent probes for detection of hydrogen peroxide and their cell imaging application. *RSC Advances* **2016,** *6* (89), 85838-85843.

225. Shanmugapriya, J.; Rajaguru, K.; Muthusubramanian, S.; **Bhuvanesh**, N., Copper(II)-Catalyzed C-S Cross-Coupling with Thiazolidine-2-thiones and Boronic Acids: Synthesis of Azole Sulfides. *European Journal of Organic Chemistry* **2016,** *2016* (11), 1963-1967.

226. Selvakumaran, N.; Sandhiya, L.; **Bhuvanesh**, N. S. P.; Senthilkumar, K.; Karvembu, R., Structural diversity in aroylthiourea copper complexes - formation and biological evaluation of [Cu(I)(μ-S)SCl]2, cis-Cu(II)S2O2, trans-Cu(II)S2O2 and Cu(I)S3 cores. *New Journal of Chemistry* **2016,** *40* (6), 5401-5413.

227. Rajaguru, K.; Mariappan, A.; Muthusubramanian, S.; **Bhuvanesh**, N., The Annulation of Vinyl Azides with Potassium Ethyl Xanthogenate: A Straightforward Synthesis of Thiazole-2(3H)-thiones. *ChemistrySelect* **2016,** *1* (8), 1636-1640.

228. Rajaguru, K.; Mariappan, A.; Beneto, A. J.; Sivaraman, G.; Muthusubramanian, S.; Siva, A.; **Bhuvanesh**, N., Nickel-Catalyzed Desulfitative C-C Cross Coupling: The Synthesis of 6-Aza-Tetrahydroquinazolines and their Solvatochromism. *ChemistrySelect* **2016,** *1* (8), 1729-1736.

229. Paluru, D. K.; Dey, S.; Wadawale, A. P.; **Bhuvanesh**, N.; Grupp, A.; Kaim, W.; Jain, V. K., Coordination Polymers of Palladium Bridged by Carboxylate and Dimethylaminoalkylselenolate Ligands. *Chemistry - An Asian Journal* **2016,** *11* (3), 401-410.

230. Muralisankar, M.; Sujith, S.; **Bhuvanesh**, N. S. P.; Sreekanth, A., Synthesis and crystal structure of new monometallic and bimetallic copper(II) complexes with N-substituted isatin thiosemicarbazone ligands: Effects of the complexes on DNA/protein-binding property, DNA cleavage study and in vitro anticancer activity. *Polyhedron* **2016,** *118*, 103-117.

231. Muralisankar, M.; Haribabu, J.; **Bhuvanesh**, N. S. P.; Karvembu, R.; Sreekanth, A., Synthesis, X-ray crystal structure, DNA/protein binding, DNA cleavage and cytotoxicity studies of N(4) substituted thiosemicarbazone based copper(II)/nickel(II) complexes. *Inorganica Chimica Acta* **2016,** *449*, 82-95.

232. Muralisankar, M.; **Bhuvanesh**, N. S. P.; Sreekanth, A., Synthesis, X-ray crystal structure, DNA/protein binding and DNA cleavage studies of novel copper(II) complexes of N-substituted isatin thiosemicarbazone ligands. *New Journal of Chemistry* **2016,** *40* (3), 2661-2679.

233. Mariappan, A.; Rajaguru, K.; Santharam Roja, S.; Muthusubramanian, S.; **Bhuvanesh**, N., Hypervalent Iodine Promoted Regioselective Oxidative C-H Functionalization: Synthesis of N-(Pyridin-2-yl)benzo[d]thi-azol-2-amines. *European Journal of Organic Chemistry* **2016,** *2016* (2), 302-307.

234. Mariappan, A.; Rajaguru, K.; Muthusubramanian, S.; **Bhuvanesh**, N., Microwave-assisted catalyst-free synthesis of tetrasubstituted pyrroles using dialkyl acetylenedicarboxylates and monophenacylanilines. *Synthetic Communications* **2016,** *46* (9), 805-812.

235. Mariappan, A.; Rajaguru, K.; Merukan Chola, N.; Muthusubramanian, S.; **Bhuvanesh**, N., Hypervalent Iodine(III) Mediated Synthesis of 3-Substituted 5-Amino-1,2,4-thiadiazoles through Intramolecular Oxidative S-N Bond Formation. *Journal of Organic Chemistry* **2016,** *81* (15), 6573-6579.

236. Lunsford, A. M.; Beto, C. C.; Ding, S.; Erdem, O. F.; Wang, N.; **Bhuvanesh**, N.; Hall, M. B.; Darensbourg, M. Y., Cyanide-bridged iron complexes as biomimetics of tri-iron arrangements in maturases of the H cluster of the di-iron hydrogenase. *Chemical Science* **2016,** *7* (6), 3710-3719.

237. Lang, G. M.; **Bhuvanesh**, N.; Reibenspies, J. H.; Gladysz, J. A., Syntheses, Reactivity, Structures, and Dynamic Properties of Gyroscope-like Iron Carbonyl Complexes Based on Dibridgehead Diarsine Cages. *Organometallics* **2016,** *35* (17), 2873-2889.

238. Kirubavathy, S. J.; Velmurugan, R.; Karvembu, R.; **Bhuvanesh**, N. S. P.; Enoch, I. V. M. V.; Selvakumar, P. M.; Chitra, S., Co(II) complex of 2-amino-6-methylbenzothiazole: synthesis, structure and biological evaluation. *Indian Journal of Chemistry, Section A: Inorganic, Bio-inorganic, Physical, Theoretical & Analytical Chemistry* **2016,** *55A* (11), 1297-1304.

239. Jone Kirubavathy, S.; Velmurugan, R.; Tamilarasan, B.; Karvembu, R.; **Bhuvanesh**, N. S. P.; Chitra, S., Synthesis, Characterization, Single-Crystal XRD, and Biological Evaluation of Nickel(II) Salen Sulfadiazine Complex. *Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry* **2016,** *46* (12), 1751-1758.

240. Jeyalakshmi, K.; Haribabu, J.; **Bhuvanesh**, N. S. P.; Karvembu, R., Half-sandwich RuCl2(η6-p-cymene) core complexes containing sulfur donor aroylthiourea ligands: DNA and protein binding, DNA cleavage and cytotoxic studies. *Dalton Transactions* **2016,** *45* (31), 12518-12531.

241. Jerome, P.; **Bhuvanesh**, N. S. P.; Karvembu, R., Synthesis and crystal structure of a trinuclear nickel(II) ONO pincer complex [Ni(pydc)2]2[Ni(H2O)5]·2H2O·2(C6H15N). *Journal of Structural Chemistry* **2016,** *57* (3), 528-533.

242. Jayanthi, E.; Kalaiselvi, S.; Padma, V. V.; **Bhuvanesh**, N. S. P.; Dharmaraj, N., Solvent assisted formation of ruthenium(III) and ruthenium(II) hydrazone complexes in one-pot with potential in vitro cytotoxicity and enhanced LDH, NO and ROS release. *Dalton Transactions* **2016,** *45* (4), 1693-1707.

243. Harisha, M. B.; Nagaraj, M.; Muthusubramanian, S.; **Bhuvanesh**, N., Base free regioselective synthesis of α-triazolylazine derivatives. *RSC Advances* **2016,** *6* (63), 58118-58124.

244. Gopalakrishnan, M.; Thirumoorthy, K.; **Bhuvanesh**, N. S. P.; Palanisami, N., Eight membered cyclic-borasiloxanes: synthesis, structural, photophysical, steric strain and DFT calculations. *RSC Advances* **2016,** *6* (61), 55698-55709.

245. Ghosh, S. K.; Ganzmann, C.; **Bhuvanesh**, N.; Gladysz, J. A., Werner Complexes with ω-Dimethylaminoalkyl Substituted Ethylenediamine Ligands: Bifunctional Hydrogen-Bond-Donor Catalysts for Highly Enantioselective Michael Additions. *Angewandte Chemie, International Edition* **2016,** *55* (13), 4356-4360.

246. Fiedler, T.; **Bhuvanesh**, N.; Hampel, F.; Reibenspies, J. H.; Gladysz, J. A., Gyroscope like molecules consisting of trigonal or square planar osmium rotators within three-spoked dibridgehead diphosphine stators: syntheses, substitution reactions, structures, and dynamic properties. *Dalton Transactions* **2016,** *45* (16), 7131-7147.

247. Ding, S.; Ghosh, P.; Lunsford, A. M.; Wang, N.; **Bhuvanesh**, N.; Hall, M. B.; Darensbourg, M. Y., Hemilabile Bridging Thiolates as Proton Shuttles in Bioinspired H2 Production Electrocatalysts. *Journal of the American Chemical Society* **2016,** *138* (39), 12920-12927.

248. Dhinakaran, I.; Padmini, V.; **Bhuvanesh**, N., Chemodivergent, One-Pot, Multi-Component Synthesis of Pyrroles and Tetrahydropyridines under Solvent- and Catalyst-Free Conditions Using the Grinding Method. *ACS Combinatorial Science* **2016,** *18* (5), 236-242.

249. Clough, M. C.; Fiedler, T.; **Bhuvanesh**, N.; Gladysz, J. A., A phase based approach to insulated molecular wires: Diplatinum octatetraynediyl complexes bearing fluorous trialkylphosphine ligands. *Journal of Organometallic Chemistry* **2016,** *812*, 34-42.

250. Basheer, S. M.; **Bhuvanesh**, N. S. P.; Sreekanth, A., Experimental and theoretical studies of novel hydroxynaphthalene based chemosensor, and construction of molecular logic gates. *Journal of Fluorine Chemistry* **2016,** *191*, 129-142.

251. Ambethkar, S.; Padmini, V.; **Bhuvanesh**, N., A one-pot sequential five-component domino reaction for the expedient synthesis of polysubstituted pyrroles. *New Journal of Chemistry* **2016,** *40* (5), 4705-4709.

252. Stollenz, M.; Taher, D.; **Bhuvanesh**, N.; Reibenspies, J. H.; Baranova, Z.; Gladysz, J. A., Steric control of the in/out sense of bridgehead substituents in macrobicyclic compounds: isolation of new "crossed chain" variants of in/out isomers. *Chemical Communications (Cambridge, United Kingdom)* **2015,** *51* (89), 16053-16056.

253. Ramirez-Contreras, R.; **Bhuvanesh**, N.; Ozerov, O. V., Cycloaddition and C-H Activation Reactions of a Tantalum Alkylidyne. *Organometallics* **2015,** *34* (7), 1143-1146.

254. Rajaguru, K.; Mariappan, A.; Manjusri, R.; Muthusubramanian, S.; **Bhuvanesh**, N., An efficient desulfitative C-C cross coupling of fused thiazolidine-2-thione with boronic acids and boronic acid pinacol esters: formation of fused thiazoles. *RSC Advances* **2015,** *5* (105), 86832-86839.

255. Paluru, D. K.; Dey, S.; Wadawale, A.; Maity, D. K.; **Bhuvanesh**, N.; Jain, V. K., Structural Variation in [PdX2{RE(CH2)nNMe2}] (E = Se, Te; X = Cl, OAc) Complexes: Experimental Results, Computational Analysis, and Catalytic Activity in Suzuki Coupling Reactions. *European Journal of Inorganic Chemistry* **2015,** *2015* (3), 397-407.

256. Mariappan, A.; Rajaguru, K.; Muthusubramanian, S.; **Bhuvanesh**, N., A new facile pyridine-catalyzed hydroacylation of aldehydes with azodicarboxylates under microwave irradiation. *Tetrahedron Letters* **2015,** *56* (2), 338-341.

257. Loganathan, R.; Ramakrishnan, S.; Ganeshpandian, M.; **Bhuvanesh**, N. S. P.; Palaniandavar, M.; Riyasdeen, A.; Akbarsha, M. A., Mixed ligand copper(II) dicarboxylate complexes: the role of co-ligand hydrophobicity in DNA binding, double-strand DNA cleavage, protein binding and cytotoxicity. *Dalton Transactions* **2015,** *44* (22), 10210-10227.

258. Lincoln, K. M.; Arroyo- Curras, N.; Johnston, H. M.; Hayden, T. D.; Pierce, B. S.; **Bhuvanesh**, N.; Green, K. N., Chemical characteristics of the products of the complexation reaction between copper(II) and a tetra-aza macrocycle in the presence of chloride ions. *Journal of Coordination Chemistry* **2015,** *68* (16), 2810-2826.

259. Lewis, K. G.; Ghosh, S. K.; **Bhuvanesh**, N.; Gladysz, J. A., Cobalt(III) Werner Complexes with 1,2-Diphenylethylenediamine Ligands: Readily Available, Inexpensive, and Modular Chiral Hydrogen Bond Donor Catalysts for Enantioselective Organic Synthesis. *ACS Central Science* **2015,** *1* (1), 50-56.

260. Lee Chun, I.; DeMott Jessica, C.; Pell Christopher, J.; **Bhuvanesh**, N.; Ozerov Oleg, V.; Christopher, A.; Zhou, J., Correction: Ligand survey results in identification of PNP pincer complexes of iridium as long-lived and chemoselective catalysts for dehydrogenative borylation of terminal alkynes. *Chem Sci* **2015,** *6* (11), 6676.

261. Lee, C.-I.; Hirscher, N. A.; Zhou, J.; **Bhuvanesh**, N.; Ozerov, O. V., Adaptability of the SiNN Pincer Ligand in Iridium and Rhodium Complexes Relevant to Borylation Catalysis. *Organometallics* **2015,** *34* (13), 3099-3102.

262. Lee, C.-I.; DeMott, J. C.; Pell, C. J.; Christopher, A.; Zhou, J.; **Bhuvanesh**, N.; Ozerov, O. V., Ligand survey results in identification of PNP pincer complexes of iridium as long-lived and chemoselective catalysts for dehydrogenative borylation of terminal alkynes. *Chemical Science* **2015,** *6* (11), 6572-6582.

263. Lee, C.-I.; DeMott, J. C.; Pell, C. J.; Christopher, A.; Zhou, J.; **Bhuvanesh**, N.; Ozerov, O. V., Ligand survey results in identification of PNP pincer complexes of iridium as long-lived and chemoselective catalysts for dehydrogenative borylation of terminal alkynes [Erratum to document cited in CA163:553879]. *Chemical Science* **2015,** *6* (11), 6676.

264. Kirubavathy, S. J.; Velmurugan, R.; Karvembu, R.; **Bhuvanesh**, N. S. P.; Parameswari, K.; Chitra, S., Synthesis, structure, and pharmacological evaluation of Co(III) complex containing tridentate Schiff base ligand. *Russian Journal of Coordination Chemistry* **2015,** *41* (5), 345-352.

265. Kanchanadevi, A.; Ramesh, R.; **Bhuvanesh**, N., Synthesis and molecular structure of ruthenium(III) benzoylhydrazone complexes: Substituents effect on transfer hydrogenation of ketones. *Journal of Organometallic Chemistry* **2015,** *788*, 49-57.

266. Jeyalakshmi, K.; Arun, Y.; **Bhuvanesh**, N. S. P.; Perumal, P. T.; Sreekanth, A.; Karvembu, R., DNA/protein binding, DNA cleavage, cytotoxicity, superoxide radical scavenging and molecular docking studies of copper(II) complexes containing N-benzyl-N'-aryl-N''-benzoylguanidine ligands. *Inorganic Chemistry Frontiers* **2015,** *2* (8), 780-798.

267. Jayanthi, E.; Anusuya, M.; **Bhuvanesh**, N. S. P.; Khalil, K. A.; Dharmaraj, N., Synthesis and characterization of ruthenium(II) hydrazone complexes as anticancer chemotherapeutic agents: in vitro DNA/BSA protein binding and cytotoxicity assay. *Journal of Coordination Chemistry* **2015,** *68* (20), 3551-3565.

268. Ikotun Adebomi, A.; Coogan Micheal, P.; Owoseni Abimbola, A.; **Bhuvanesh**, N.; Egharevba Gabriel, O., Crystal structure of tricarbon-yltris(pyri-dine-κN)rhenium(I) tetra-fluorido-borate. *Acta crystallographica. Section E, Crystallographic communications* **2015,** *71* (Pt 5), m106-7.

269. Ikotun, A. A.; Coogan, M. P.; Owoseni, A. A.; **Bhuvanesh**, N.; Egharevba, G. O., Crystal structure of tricarbonyltris(pyridine-κN)rhenium(I) tetrafluoridoborate. *Acta Crystallographica, Section E: Crystallographic Communications* **2015,** *71* (5), m106-m107.

270. Haribabu, J.; Jeyalakshmi, K.; Arun, Y.; **Bhuvanesh**, N. S. P.; Perumal, P. T.; Karvembu, R., Synthesis, DNA/protein binding, molecular docking, DNA cleavage and in vitro anticancer activity of nickel(II) bis(thiosemicarbazone) complexes. *RSC Advances* **2015,** *5* (57), 46031-46049.

271. Estrada, A. L.; Jia, T.; **Bhuvanesh**, N.; Bluemel, J.; Gladysz, J. A., Substitution and Catalytic Chemistry of Gyroscope-Like Complexes Derived from Cl-Rh-CO Rotators and Triply trans Spanning Di(trialkylphosphine) Ligands. *European Journal of Inorganic Chemistry* **2015,** *2015* (32), 5318-5321.

272. Dhinakaran, I.; Padmini, V.; **Bhuvanesh**, N., One-pot synthesis of N-aryl 1,4-dihydropyridine derivatives and their biological activities. *Journal of Chemical Sciences (Berlin, Germany)* **2015,** *127* (12), 2201-2209.

273. Davidson, J. J.; DeMott, J. C.; Douvris, C.; Fafard, C. M.; **Bhuvanesh**, N.; Chen, C.-H.; Herbert, D. E.; Lee, C.-I.; McCulloch, B. J.; Foxman, B. M.; Ozerov, O. V., Comparison of the Electronic Properties of Diarylamido-Based PNZ Pincer Ligands: Redox Activity at the Ligand and Donor Ability Toward the Metal. *Inorganic Chemistry* **2015,** *54* (6), 2916-2935.

274. Cluff, K. J.; **Bhuvanesh**, N.; Bluemel, J., Monometallic Ni0 and Heterobimetallic Ni0/AuI Complexes of Tripodal Phosphine Ligands: Characterization in Solution and in the Solid State and Catalysis. *Chemistry - A European Journal* **2015,** *21* (28), 10138-10148.

275. Chithiravel, R.; Rajaguru, K.; Muthusubramanian, S.; **Bhuvanesh**, N., A direct green route towards the synthesis of 2-aroyl-3,5-diarylthiophenes from 1,5-diketones. *RSC Advances* **2015,** *5* (105), 86414-86420.

276. Arumugam, V.; Kaminsky, W.; **Bhuvanesh**, N. S. P.; Nallasamy, D., Palladium(II) complexes containing ONO tridentate hydrazone for Suzuki-Miyaura coupling of aryl chlorides in aqueous-organic media. *RSC Advances* **2015,** *5* (73), 59428-59436.

277. Ambethkar, S.; Padmini, V.; **Bhuvanesh**, N., A green and efficient protocol for the synthesis of dihydropyrano[2,3-c]pyrazole derivatives via a one-pot, four component reaction by grinding method. *Journal of Advanced Research* **2015,** *6* (6), 975-985.

278. Ahn, S. H.; Cluff, K. J.; **Bhuvanesh**, N.; Bluemel, J., Hydrogen Peroxide and Dihydroperoxy Propane Adducts of Phosphine Oxides as Stoichiometric and Soluble Oxidizing Agents. *Angewandte Chemie, International Edition* **2015,** *54* (45), 13341-13345.

279. Vivekananda, K. V.; Dey, S.; Wadawale, A.; **Bhuvanesh**, N.; Jain, V. K., Supramolecular 3-/4-Mercaptobenzoic Acid Complexes of Palladium(II) and Platinum(II) Stabilized by Hydrogen Bonding. *European Journal of Inorganic Chemistry* **2014,** *2014* (12), 2153-2161.

280. Timpa, S. D.; Zhou, J.; **Bhuvanesh**, N.; Ozerov, O. V., Potential Carbon-Fluorine Reductive Elimination from Pincer-Supported Rh(III) and Dominating Side Reactions: Theoretical and Experimental Examination. *Organometallics* **2014,** *33* (21), 6210-6217.

281. Sierra, D.; **Bhuvanesh**, N.; Reibenspies, J. H.; Gladysz, J. A.; Klahn, A. H., Syntheses, structures, and reactions of cyrhetrenylphosphines; applications in palladium catalyzed Suzuki cross-coupling reactions. *Journal of Organometallic Chemistry* **2014,** *749*, 416-420.

282. Selvakumaran, N.; **Bhuvanesh**, N. S. P.; Karvembu, R., Self-assembled Cu(II) and Ni(II) metallomacrocycles formed from 3,3,3',3'-tetrabenzyl-1,1'-aroylbis(thiourea) ligands: DNA and protein binding studies, and cytotoxicity of trinuclear complexes. *Dalton Transactions* **2014,** *43* (43), 16395-16410.

283. Selvakumaran, N.; **Bhuvanesh**, N. S. P.; Endo, A.; Karvembu, R., Synthesis, structure, DNA and protein binding studies, and cytotoxic activity of nickel(II) complexes containing 3,3-dialkyl/aryl-1-(2,4-dichlorobenzoyl)thiourea ligands. *Polyhedron* **2014,** *75*, 95-109.

284. Reibenspies, J. H.; **Bhuvanesh**, N., Selecting a specimen holder for X-ray powder diffraction: specimen mounting affects peak positions and intensities. *Pharmaceutical Technology Europe* **2014,** *26* (6), 38-41.

285. Rajaguru, K.; Suresh, R.; Mariappan, A.; Muthusubramanian, S.; **Bhuvanesh**, N., Erbium Triflate Promoted Multicomponent Synthesis of Highly Substituted Imidazoles. *Organic Letters* **2014,** *16* (3), 744-747.

286. Nawara-Hultzsch, A. J.; Stollenz, M.; Barbasiewicz, M.; Szafert, S.; Lis, T.; Hampel, F.; **Bhuvanesh**, N.; Gladysz, J. A., Gyroscope-Like Molecules Consisting of PdX2/PtX2 Rotators within Three-Spoke Dibridgehead Diphosphine Stators: Syntheses, Substitution Reactions, Structures, and Dynamic Properties. *Chemistry - A European Journal* **2014,** *20* (16), 4617-4637.

287. Nagaraj, M.; Perumal, D.; Boominathan, M.; Muthusubramanian, S.; **Bhuvanesh**, N., Selenium dioxide reaction of substituted diphenacyl sulfides: generation of α -ketoacids. *Journal of Sulfur Chemistry* **2014,** *35* (1), 24-30.

288. Mukherjee, T.; Ganzmann, C.; **Bhuvanesh**, N.; Gladysz, J. A., Syntheses of Enantiopure Bifunctional 2-Guanidinobenzimidazole Cyclopentadienyl Ruthenium Complexes: Highly Enantioselective Organometallic Hydrogen Bond Donor Catalysts for Carbon-Carbon Bond Forming Reactions. *Organometallics* **2014,** *33* (23), 6723-6737.

289. Mizoguchi, H.; **Bhuvanesh**, N. S. P.; Kim, Y.-I.; Ohara, S.; Woodward, P. M., Hydrothermal Crystal Growth and Structure Determination of Double Hydroxides LiSb(OH)6, BaSn(OH)6, and SrSn(OH)6. *Inorganic Chemistry* **2014,** *53* (19), 10570-10577.

290. Kaladevi, S.; Sridhar, J.; Abhilashamole, B.; Muthusubramanian, S.; **Bhuvanesh**, N., Synthesis of substituted 1,3-diaryl-6,7-dihydro-1H-indol-4(5H)-ones from 1-aryl-2-arylaminoethanones. *RSC Advances* **2014,** *4* (65), 34382-34386.

291. Jeyalakshmi, K.; Selvakumaran, N.; **Bhuvanesh**, N. S. P.; Sreekanth, A.; Karvembu, R., DNA/protein binding and cytotoxicity studies of copper(II) complexes containing N,N',N''-trisubstituted guanidine ligands. *RSC Advances* **2014,** *4* (33), 17179-17195.

292. Hilliard, C. R.; Kharel, S.; Cluff, K. J.; **Bhuvanesh**, N.; Gladysz, J. A.; Bluemel, J., Structures and Unexpected Dynamic Properties of Phosphine Oxides Adsorbed on Silica Surfaces. *Chemistry - A European Journal* **2014,** *20* (52), 17292-17295.

293. Gauthier, S.; Caro, B.; Robin-Le Guen, F.; **Bhuvanesh**, N.; Gladysz, J. A.; Wojcik, L.; Le Poul, N.; Planchat, A.; Pellegrin, Y.; Blart, E.; Jacquemin, D.; Odobel, F., Synthesis, photovoltaic performances and TD-DFT modeling of push-pull diacetylide platinum complexes in TiO2 based dye-sensitized solar cells. *Dalton Transactions* **2014,** *43* (29), 11233-11242.

294. Cluff, K. J.; **Bhuvanesh**, N.; Blumel, J., Adsorption of Ruthenium and Iron Metallocenes on Silica: A Solid-State NMR Study. *Organometallics* **2014,** *33* (11), 2671-2680.

295. Boominathan, M.; Nagaraj, M.; Muthusubramanian, S.; **Bhuvanesh**, N., Three component synthesis of 2-oxindoles via sequential Michael addition, intramolecular cyclization and aromatization. *RSC Advances* **2014,** *4* (36), 18549-18557.

296. Boominathan, M.; Nagaraj, M.; Maheshwaran, C.; Muthusubramanian, S.; **Bhuvanesh**, N., One-Pot Green Synthesis of Thiazolo[3,2-a]pyridine Derivatives via Tandem cyclization in Aqueous Media. *Journal of Heterocyclic Chemistry* **2014,** *51* (1), 244-248.

297. Bharathimohan, K.; Ponpandian, T.; Ahamed, A. J.; **Bhuvanesh**, N., Sequential decarboxylative azide-alkyne cycloaddition and dehydrogenative coupling reactions: one-pot synthesis of polycyclic fused triazoles. *Beilstein Journal of Organic Chemistry* **2014,** *10*, 3031-3037, 7 pp.

298. Baranova, Z.; Amini, H.; **Bhuvanesh**, N.; Gladysz, J. A., Rotaxanes Derived from Dimetallic Polyynediyl Complexes: Extended Axles and Expanded Macrocycles. *Organometallics* **2014,** *33* (23), 6746-6749.

299. Alagesan, M.; Sathyadevi, P.; Krishnamoorthy, P.; **Bhuvanesh**, N. S. P.; Dharmaraj, N., DMSO containing ruthenium(II) hydrazone complexes: in vitro evaluation of biomolecular interaction and anticancer activity. *Dalton Transactions* **2014,** *43* (42), 15829-15840.

300. Alagesan, M.; **Bhuvanesh**, N. S. P.; Dharmaraj, N., An investigation on new ruthenium(II) hydrazone complexes as anticancer agents and their interaction with biomolecules. *Dalton Transactions* **2014,** *43* (16), 6087-6099.

301. Alagesan, M.; **Bhuvanesh**, N. S. P.; Dharmaraj, N., Binuclear copper complexes: Synthesis, X-ray structure and interaction study with nucleotide/protein by in vitro biochemical and electrochemical analysis. *European Journal of Medicinal Chemistry* **2014,** *78*, 281-293.

302. Yakovenko, A. A.; Reibenspies, J. H.; **Bhuvanesh**, N.; Zhou, H.-C., Generation and applications of structure envelopes for porous metal-organic frameworks. *Journal of Applied Crystallography* **2013,** *46* (2), 346-353.

303. Senthil Raja, D.; Ramachandran, E.; **Bhuvanesh**, N. S. P.; Natarajan, K., Synthesis, structure and in vitro pharmacological evaluation of a novel 2-oxo-1,2-dihydroquinoline-3-carbaldehyde (2'-methylbenzoyl) hydrazone bridged copper(II) coordination polymer. *European Journal of Medicinal Chemistry* **2013,** *64*, 148-159.

304. Sahnoune, H.; Baranova, Z.; **Bhuvanesh**, N.; Gladysz, J. A.; Halet, J.-F., A Metal-Capped Conjugated Polyyne Threaded through a Phenanthroline-Based Macrocycle. Probing beyond the Mechanical Bond to Interactions in Interlocked Molecular Architectures. *Organometallics* **2013,** *32* (21), 6360-6367.

305. Reibenspies, J.; **Bhuvanesh**, N., Absolute structure of R-(-)-2-methylpiperazine and S-(+)-2-methylpiperazine. *Acta Crystallographica, Section B: Structural Science, Crystal Engineering and Materials* **2013,** *69* (3), 288-293.

306. Ramirez-Contreras, R.; **Bhuvanesh**, N.; Zhou, J.; Ozerov, O. V., Synthesis of a silylium zwitterion. *Angewandte Chemie, International Edition* **2013,** *52* (39), 10313-10315.

307. Ramachandran, E.; Senthil Raja, D.; **Bhuvanesh**, N. S. P.; Natarajan, K., Synthesis, characterization and in vitro pharmacological evaluation of new water soluble Ni(II) complexes of 4N-substituted thiosemicarbazones of 2-oxo-1,2-dihydroquinoline-3-carbaldehyde. *European Journal of Medicinal Chemistry* **2013,** *64*, 179-189.

308. Nagaraj, M.; Sathiyamoorthy, S.; Boominathan, M.; Muthusubramanian, S.; **Bhuvanesh**, N., An efficient synthetic protocol for quinoxalinones, benzoxazinones, and benzothiazinones from 2-oxo-2-aryl-acetyl bromide precursors. *Journal of Heterocyclic Chemistry* **2013,** *50* (5), 1146-1151.

309. Nagaraj, M.; Boominathan, M.; Manikannan, R.; Muthusubramanian, S.; **Bhuvanesh**, N., Synthesis of highly substituted N-hydroxy piperidine via intramolecular reductive cyclization of 1-keto-5-ketoxime. *Synthetic Communications* **2013,** *43* (7), 930-940.

310. Ghosh, S. K.; Ojeda, A. S.; Guerrero-Leal, J.; **Bhuvanesh**, N.; Gladysz, J. A., New Media for Classical Coordination Chemistry: Phase Transfer of Werner and Related Polycations into Highly Nonpolar Fluorous Solvents. *Inorganic Chemistry* **2013,** *52* (16), 9369-9378.

311. DeMott, J. C.; **Bhuvanesh**, N.; Ozerov, O. V., Frustrated Lewis pair-like splitting of aromatic C-H bonds and abstraction of halogen atoms by a cationic [(FPNP)Pt]+ species. *Chemical Science* **2013,** *4* (2), 642-649.

312. Boominathan, M.; Sathish, V.; Nagaraj, M.; **Bhuvanesh**, N.; Muthusubramanian, S.; Rajagopal, S., Aggregation induced emission characteristics of maleimide derivatives. *RSC Advances* **2013,** *3* (44), 22246-22252.

313. Boominathan, M.; Pugazhenthiran, N.; Nagaraj, M.; Muthusubramanian, S.; Murugesan, S.; **Bhuvanesh**, N., Nanoporous Titania-Supported Gold Nanoparticle-Catalyzed Green Synthesis of 1,2,3-Triazoles in Aqueous Medium. *ACS Sustainable Chemistry & Engineering* **2013,** *1* (11), 1405-1411.

314. Alagesan, M.; **Bhuvanesh**, N. S. P.; Dharmaraj, N., Potentially cytotoxic new copper(II) hydrazone complexes: synthesis, crystal structure and biological properties. *Dalton Transactions* **2013,** *42* (19), 7210-7223.

315. Senthil Raja, D.; **Bhuvanesh**, N. S. P.; Natarajan, K., Synthesis, crystal structure and pharmacological evaluation of two new Cu(II) complexes of 2-oxo-1,2-dihydroquinoline-3-carbaldehyde (benzoyl) hydrazone: A comparative investigation. *European Journal of Medicinal Chemistry* **2012,** *47*, 73-85.

316. Sathyadevi, P.; Krishnamoorthy, P.; **Bhuvanesh**, N. S. P.; Kalaiselvi, P.; Vijaya Padma, V.; Dharmaraj, N., Organometallic ruthenium(II) complexes: Synthesis, structure and influence of substitution at azomethine carbon towards DNA/BSA binding, radical scavenging and cytotoxicity. *European Journal of Medicinal Chemistry* **2012,** *55*, 420-431.

317. Ramachandran, E.; Senthil Raja, D.; **Bhuvanesh**, N. S. P.; Natarajan, K., Mixed ligand palladium(II) complexes of 6-methoxy-2-oxo-1,2-dihydroquinoline-3-carbaldehyde 4N-substituted thiosemicarbazones with triphenylphosphine co-ligand: Synthesis, crystal structure and biological properties. *Dalton Transactions* **2012,** *41* (43), 13308-13323.

318. Raja, D. S.; **Bhuvanesh**, N. S. P.; Natarajan, K., Structure-activity relationship study of copper(II) complexes with 2-oxo-1,2-dihydroquinoline-3-carbaldehyde (4'-methylbenzoyl) hydrazone: synthesis, structures, DNA and protein interaction studies, antioxidative and cytotoxic activity. *JBIC, Journal of Biological Inorganic Chemistry* **2012,** *17* (2), 223-237.

319. Raja, D. S.; **Bhuvanesh**, N. S. P.; Natarajan, K., DNA binding, protein interaction, radical scavenging and cytotoxic activity of 2-oxo-1,2-dihydroquinoline-3-carbaldehyde(2'-hydroxybenzoyl)hydrazone and its Cu(II) complexes: A structure activity relationship study. *Inorganica Chimica Acta* **2012,** *385*, 81-93.

320. Raja, D. S.; **Bhuvanesh**, N. S. P.; Natarajan, K., A novel water soluble ligand bridged cobalt(II) coordination polymer of 2-oxo-1,2-dihydroquinoline-3-carbaldehyde (isonicotinic) hydrazone: evaluation of the DNA binding, protein interaction, radical scavenging and anticancer activity. *Dalton Transactions* **2012,** *41* (15), 4365-4377.

321. Paul, N.; Kaladevi, S.; Beneto, A. J.; Muthusubramanian, S.; **Bhuvanesh**, N., Synthesis of oxathiane and morpholine from acyclic precursors: a modified Mitsunobu reaction. *Tetrahedron* **2012,** *68* (34), 6892-6901.

322. Nagaraj, M.; Iniya, M.; Boominathan, M.; Muthusubramanian, S.; **Bhuvanesh**, N., Synthesis of cyclic nitrone and 1,2-oxazine from 1,2,4-triaryl-but-2-ene-1,4-dione and hydroxylamine. *Journal of Chemical Sciences (Bangalore, India)* **2012,** *124* (4), 913-919.

323. Nagaraj, M.; Boominathan, M.; Perumal, D.; Muthusubramanian, S.; **Bhuvanesh**, N., Copper(I)-Catalyzed Cascade Sulfonimidate to Sulfonamide Rearrangement: Synthesis of Imidazo[1,2-a][1,4]diazepin-7(6H)-one. *Journal of Organic Chemistry* **2012,** *77* (14), 6319-6326.

324. Nagaraj, M.; Boominathan, M.; Muthusubramanian, S.; **Bhuvanesh**, N., Microwave-assisted metal-free synthesis of 2,8-diaryl-6-aminoimidazo[1,2-a]pyridine via amine-triggered benzannulation. *Synlett* **2012,** *23* (9), 1353-1357.

325. Lai, T. K.; Biswas, G.; Chatterjee, S.; Dutta, A.; Pal, C.; Banerji, J.; **Bhuvanesh**, N.; Reibenspies, J. H.; Acharya, K., Leishmanicidal and Anticandidal Activity of Constituents of Indian Edible Mushroom Astraeus hygrometricus. *Chemistry & Biodiversity* **2012,** *9* (8), 1517-1524.

326. Krishnamoorthy, P.; Sathyadevi, P.; Butorac, R. R.; Cowley, A. H.; **Bhuvanesh**, N. S. P.; Dharmaraj, N., Copper(I) and nickel(II) complexes with 1 : 1 vs. 1 : 2 coordination of ferrocenyl hydrazone ligands: Do the geometry and composition of complexes affect DNA binding/cleavage, protein binding, antioxidant and cytotoxic activities? *Dalton Transactions* **2012,** *41* (15), 4423-4436.

327. Krishnamoorthy, P.; Sathyadevi, P.; Butorac, R. R.; Cowley, A. H.; **Bhuvanesh**, N. S. P.; Dharmaraj, N., Variation in the biomolecular interactions of nickel(II) hydrazone complexes upon tuning the hydrazide fragment. *Dalton Transactions* **2012,** *41* (22), 6842-6854.

328. Hilliard, C. R.; **Bhuvanesh**, N.; Gladysz, J. A.; Bluemel, J., Synthesis, purification, and characterization of phosphine oxides and their hydrogen peroxide adducts. *Dalton Transactions* **2012,** *41* (6), 1742-1754.

329. Denny, J. A.; Foley, W. S.; Almaraz, E.; Reibenspies, J. H.; **Bhuvanesh**, N.; Darensbourg, M. Y., Comparisons of zinc with cadmium in N2S2 coordination and as S-bonded adducts to tungsten carbonyls. *Dalton Transactions* **2012,** *41* (1), 143-148.

330. Clough, M. C.; Zeits, P. D.; **Bhuvanesh**, N.; Gladysz, J. A., Toward permetalated alkyne/azide 3 + 2 or "click" cycloadducts. *Organometallics* **2012,** *31* (15), 5231-5234.

331. Sukanya, D.; Raja, D. S.; **Bhuvanesh**, N. S. P.; Natarajan, K., Ru(III) complexes containing 3,5-pyrazole dicarboxylic acid and triphenylphosphine/triphenylarsine: Synthesis, characterization and catalytic activity. *Polyhedron* **2011,** *30* (6), 1108-1113.

332. Stollenz, M.; **Bhuvanesh**, N.; Reibenspies, J. H.; Gladysz, J. A., Syntheses and structures of digold complexes of macrobicyclic dibridgehead diphosphines that can turn themselves inside out. *Organometallics* **2011,** *30* (24), 6510-6513.

333. Stollenz, M.; Barbasiewicz, M.; Nawara-Hultzsch, A. J.; Fiedler, T.; Laddusaw, R. M.; **Bhuvanesh**, N.; Gladysz, J. A., Dibridgehead Diphosphines that Turn Themselves Inside Out. *Angewandte Chemie, International Edition* **2011,** *50* (29), 6647-6651, S6647/1-S6647/17.

334. Stollenz, M.; Barbasiewicz, M.; Nawara-Hultzsch Agnieszka, J.; Fiedler, T.; Laddusaw Ryan, M.; **Bhuvanesh**, N.; Gladysz John, A., Dibridgehead diphosphines that turn themselves inside out. *Angewandte Chemie (International ed. in English)* **2011,** *50* (29), 6647-51.

335. Sathyadevi, P.; Krishnamoorthy, P.; Butorac, R. R.; Cowley, A. H.; **Bhuvanesh**, N. S. P.; Dharmaraj, N., Effect of substitution and planarity of the ligand on DNA/BSA interaction, free radical scavenging and cytotoxicity of diamagnetic Ni(II) complexes: A systematic investigation. *Dalton Transactions* **2011,** *40* (38), 9690-9702.

336. Raja, D. S.; Paramaguru, G.; **Bhuvanesh**, N. S. P.; Reibenspies, J. H.; Renganathan, R.; Natarajan, K., Effect of terminal N-substitution in 2-oxo-1,2-dihydroquinoline-3-carbaldehyde thiosemicarbazones on the mode of coordination, structure, interaction with protein, radical scavenging and cytotoxic activity of copper(II) complexes. *Dalton Transactions* **2011,** *40* (17), 4548-4559.

337. Raja, D. S.; **Bhuvanesh**, N. S. P.; Natarajan, K., Biological evaluation of a novel water soluble sulphur bridged binuclear copper(II) thiosemicarbazone complex. *European Journal of Medicinal Chemistry* **2011,** *46* (9), 4584-4594.

338. Raja, D. S.; **Bhuvanesh**, N. S. P.; Natarajan, K., Effect of N(4)-Phenyl Substitution in 2-Oxo-1,2-dihydroquinoline-3-carbaldehyde Semicarbazones on the Structure, DNA/Protein Interaction, and Antioxidative and Cytotoxic Activity of Cu(II) Complexes. *Inorganic Chemistry* **2011,** *50* (24), 12852-12866.

339. Paul, N.; Muthusubramanian, S.; **Bhuvanesh**, N., A green protocol for the synthesis of conformationally rigid sulfur linked bisquinolines by double Friedlander reaction in water. *New Journal of Chemistry* **2011,** *35* (11), 2607-2613.

340. Nagaraj, M.; Boominathan, M.; Muthusubramanian, S.; **Bhuvanesh**, N., Synthesis of novel N-hydroxy heterocycles via intramolecular reductive cyclization of diketoximes by NaBH3CN. *Organic & Biomolecular Chemistry* **2011,** *9* (12), 4642-4652.

341. Mizoguchi, H.; Zakharov, L. N.; **Bhuvanesh**, N. S. P.; Sleight, A. W.; Subramanian, M. A., Synthesis and crystal structure of two new cerium rhodium oxides: Ce2/3-xRh3+2O4 (x~0.12) with Ce mixed valency and Ce4+Rh3+2O5. *Journal of Solid State Chemistry* **2011,** *184* (6), 1381-1386.

342. Hollas, A. M.; Gu, W.; **Bhuvanesh**, N.; Ozerov, O. V., Synthesis and Characterization of Pd Complexes of a Carbazolyl/Bis(Imine) NNN Pincer Ligand. *Inorganic Chemistry* **2011,** *50* (8), 3673-3679.

343. Clearfield, A.; **Bhuvanesh**, N., X-ray powder diffraction. *Encyclopedia of Inorganic and Bioinorganic Chemistry* **2011**, 1-31.

344. Owen, G. R.; Gauthier, S.; Weisbach, N.; Hampel, F.; **Bhuvanesh**, N.; Gladysz, J. A., Towards multistranded molecular wires: Syntheses, structures, and reactivities of tetraplatinum bis(polyynediyl) complexes with Pt-Cx-Pt-(P(CH2)3P)2-Pt-Cx-Pt-(P(CH2)3P)2 cores (x = 4, 6, 8). *Dalton Transactions* **2010,** *39* (22), 5260-5271.

345. Reibenspies, J. H.; **Bhuvanesh**, N., A side-loading hermetic sample holder for X-ray powder diffraction. *Powder Diffraction* **2009,** *24* (1), 56-58.

346. Reibenspies, J. H.; **Bhuvanesh**, N., X-ray powder diffraction characterization of iron oxide microparticles on a Bruker SMART1000 single-crystal x-ray diffractometer. *Powder Diffraction* **2009,** *24* (4), 347-350.

347. Gauthier, S.; Weisbach, N.; **Bhuvanesh**, N.; Gladysz, J. A., "Click" Chemistry in Metal Coordination Spheres: Copper(I)-Catalyzed 3+2 Cycloadditions of Benzyl Azide and Platinum Polyynyl Complexes trans-(C6F5)(p-tol3P)2Pt(C≡C)nH (n = 2-6). *Organometallics* **2009,** *28* (19), 5597-5599.

348. de Paula, Q. A.; Liu, Q.; Almaraz, E.; Denny, J. A.; Mangrum, J. B.; **Bhuvanesh**, N.; Darensbourg, M. Y.; Farrell, N. P., Reactions of palladium and gold complexes with zinc-thiolate chelates using electrospray mass spectrometry and x-ray diffraction: molecular identification of [Pd(bme-dach)], [Au(bme-dach)]+ and [ZnCl(bme-dach)]2Pd. *Dalton Transactions* **2009,** (48), 10896-10903.

349. Almaraz, E.; Denny, J. A.; Foley, W. S.; Reibenspies, J. H.; **Bhuvanesh**, N.; Darensbourg, M. Y., Zinc/Nickel exchange and ligand cannibalism in N2S2O1,2 donor ligand sets. *Dalton Transactions* **2009,** (43), 9496-9502.

350. Singleton, M. L.; **Bhuvanesh**, N.; Reibenspies, J. H.; Darensbourg, M. Y., Synthetic support of de novo design: sterically bulky [FeFe]-hydrogenase models. *Angewandte Chemie, International Edition* **2008,** *47* (49), 9492-9495.

351. Reibenspies, J. H.; **Bhuvanesh**, N., Practical aspects [of X-ray powder diffraction]. *Principles and Applications of Powder Diffraction* **2008**, 123-157.

352. Darensbourg, D. J.; Choi, W.; Karroonnirun, O.; **Bhuvanesh**, N., Ring-Opening Polymerization of Cyclic Monomers by Complexes Derived from Biocompatible Metals. Production of Poly(lactide), Poly(trimethylene carbonate), and Their Copolymers. *Macromolecules (Washington, DC, United States)* **2008,** *41* (10), 3493-3502.

353. Cotton, F. A.; Murillo, C. A.; Poplaukhin, P. V.; **Bhuvanesh**, N.; Tiekink, E. R. T., Tetrakis(1,3,4,6,7,8-hexahydro-2H-pyrimido[1,2-a]pyrimidin-9-ido-κ2N1,N9)niobium(V) hexafluoridophosphate. *Acta Crystallographica, Section E: Structure Reports Online* **2008,** *64* (9), m1197.

354. Mani, R.; **Bhuvanesh**, N. S. P.; Ramanujachary, K. V.; Green, W.; Lofland, S. E.; Gopalakrishnan, J., A novel one-pot metathesis route for the synthesis of double perovskites, Ba3MM'2O9 (M = Mg, Ni, Zn; M' = Nb, Ta) with 1:2 ordering of M and M' atoms. *Journal of Materials Chemistry* **2007,** *17* (16), 1589-1592.

355. Clearfield, A.; **Bhuvanesh**, N., X-ray powder diffraction. *Applications of Physical Methods to Inorganic and Bioinorganic Chemistry* **2007**, 529-559.

356. Reibenspies, J. H.; **Bhuvanesh**, N., Capillaries prepared from thin-walled heat-shrink poly(ethylene terephthalate) (PET) tubing for x-ray powder diffraction analysis. *Powder Diffraction* **2006,** *21* (4), 323-325.

357. Konar, S.; **Bhuvanesh**, N.; Clearfield, A., Oxo-, Hydroxo-, and Peroxo-Bridged Fe(III) Phosphonate Cages. *Journal of the American Chemical Society* **2006,** *128* (30), 9604-9605.

358. Bandichhor, R.; Thivierge, C.; **Bhuvanesh**, N. S. P.; Burgess, K., 4,4-Difluoro-1,3,5,7-tetramethyl-4-bora-3a,4a-diaza-s-indacene. *Acta Crystallographica, Section E: Structure Reports Online* **2006,** *62* (10), o4310-o4311.

359. Subbiah, A.; **Bhuvanesh**, N.; Clearfield, A., A novel inorganic-organic compound: Synthesis and structural characterization of tin(II) phenylbis(phosphonate), Sn2(PO3C6H4PO3). *Journal of Solid State Chemistry* **2005,** *178* (4), 1321-1325.

360. Reibenspies, J. H.; **Bhuvanesh**, N. S. P., Combinatorial screening employing nylon loops and micro-X-ray powder diffraction. *Journal of Pharmaceutical and Biomedical Analysis* **2005,** *37* (3), 611-614.

361. Leonard, B. M.; **Bhuvanesh**, N. S. P.; Schaak, R. E., Low-temperature polyol synthesis of AuCuSn2 and AuNiSn2: Using solution chemistry to access ternary intermetallic compounds as nanocrystals. *Journal of the American Chemical Society* **2005,** *127* (20), 7326-7327.

362. **Bhuvanesh**, N. S. P.; Reibenspies, J. H.; Zhang, Y.; Lee, P. L., A novel strategy for ab initio structure determination using micro-powder x-ray diffraction: structure solution and refinement of 3-bromophenylboronic acid and tris(4-bromophenyl)boroxine. *Journal of Applied Crystallography* **2005,** *38* (4), 632-638.

363. **Bhuvanesh**, N. S. P.; Reibenspies, J. H.; Golden, M. L.; Darensbourg, M. Y.; Zhang, Y.; Lee, P. L., The vapochromic behavior, desulfoxidation and structural characterization of the SO2 adducts of Ni(BME-DACH) from powder data. *Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry* **2005,** *35* (1), 11-17.

364. **Bhuvanesh**, N. S. P.; Reibenspies, J. H., 4-Bromophenylboronic acid ethanol 0.04-solvate. *Acta Crystallographica, Section E: Structure Reports Online* **2005,** *61* (2), o362-o364.

365. Mar Gomez-Alcantara, M.; Cabeza, A.; Martinez-Lara, M.; Aranda, M. A. G.; Suau, R.; **Bhuvanesh**, N.; Clearfield, A., Synthesis and Characterization of a New Bisphosphonic Acid and Several Metal Hybrids Derivatives. *Inorganic Chemistry* **2004,** *43* (17), 5283-5293.

366. Mizoguchi, H.; **Bhuvanesh**, N. S. P.; Woodward, P. M., Optical and electrical properties of the wide gap, n-type semiconductors: ZnBi2O6 and MgBi2O6. *Chemical Communications (Cambridge, United Kingdom)* **2003,** (9), 1084-1085.

367. **Bhuvanesh**, N. S. P.; Reibenspies, J. H., A novel approach to micro-sample x-ray powder diffraction using nylon loops. *Journal of Applied Crystallography* **2003,** *36* (6), 1480-1481.

368. **Bhuvanesh**, N. S. P.; Woodward, P. M., Thermally Induced A'-A Site Exchange in Novel Layered Perovskites Ag2[Ca1.5M3O10] (M = Nb, Ta). *Journal of the American Chemical Society* **2002,** *124* (48), 14294-14295.

369. Porter, Y.; Ok, K. M.; **Bhuvanesh**, N. S. P.; Halasyamani, P. S., Synthesis and Characterization of Te2SeO7: A Powder Second-Harmonic-Generating Study of TeO2, Te2SeO7, Te2O5, and TeSeO4. *Chemistry of Materials* **2001,** *13* (5), 1910-1915.

370. Porter, Y.; **Bhuvanesh**, N. S. P.; Halasyamani, P. S., Synthesis and Characterization of Non-centrosymmetric TeSeO4. *Inorganic Chemistry* **2001,** *40* (6), 1172-1175.

371. Ok, K. M.; **Bhuvanesh**, N. S. P.; Halasyamani, P. S., Bi2TeO5: Synthesis, Structure, and Powder Second Harmonic Generation Properties. *Inorganic Chemistry* **2001,** *40* (8), 1978-1980.

372. Ok, K. M.; **Bhuvanesh**, N. S. P.; Halasyamani, P. S., SbSbxM1-xO4 (M = NbV or TaV): solid solution behavior and second-harmonic generating properties. *Journal of Solid State Chemistry* **2001,** *161* (1), 57-62.

373. **Bhuvanesh**, N. S. P.; Halasyamani, P. S., Synthesis and Characterization of NaGaTe2O6·2.4H2O: A New Open-Framework Tellurite Related to Zemannite. *Inorganic Chemistry* **2001,** *40* (7), 1404-1405.

374. **Bhuvanesh**, N. S. P.; Crosnier-Lopez, M.-P.; Duroy, H.; Fourquet, J.-L., Synthesis, characterization and dehydration study of H2A0.5nBnO3n+1·xH2O (n = 2 and 3, A = Ca, Sr and B = Nb, Ta) compounds obtained by

ion-exchange from the layered Li2A0.5nBnO3n+1 perovskite materials. *Journal of Materials Chemistry* **2000,** *10* (7), 1685-1692.

375. Crosnier-Lopez, M. P.; **Bhuvanesh**, N. S. P.; Duroy, H.; Fourquet, J. L., Irreversible electron-induced structural change during HREM imaging in lithium Ruddlesden-Popper phases in the series Li2Lax(Nb2n-3xTi3x-n)O3n+1 (n = 2,3,4) and Li2Sr1.5(Nb3-xFex)O10-x. *Journal of Solid State Chemistry* **1999,** *145* (1), 136-149.

376. **Bhuvanesh**, N. S. P.; Crosnier-Lopez, M. P.; Duroy, H.; Fourquet, J. L., Synthesis and structure of novel layered perovskite oxides: Li2La1.78Nb0.66Ti2.34O10, a new family, Li2[A0.5nBnO3n+1]. *Journal of Materials Chemistry* **1999,** *9* (12), 3093-3100.

377. **Bhuvanesh**, N. S. P.; Crosnier-Lopez, M. P.; Bohnke, O.; Emery, J.; Fourquet, J. L., Synthesis, Crystal Structure, and Ionic Conductivity of Novel Ruddlesden-Popper Related Phases, Li4Sr3Nb5.77Fe0.23O19.77 and Li4Sr3Nb6O20. *Chemistry of Materials* **1999,** *11* (3), 634-641.

378. **Bhuvanesh**, N. S. P.; Gopalakrishnan, J., Polymerization of aniline in layered HMMoO6·H2O (M = Nb, Ta). *Materials Science & Engineering, B: Solid-State Materials for Advanced Technology* **1998,** *B53* (3), 267-271.

379. **Bhuvanesh**, N. S. P.; Bohnke, O.; Duroy, H.; Crosnier-Lopez, M. P.; Emery, J.; Fourquet, J. L., Topotactic H+/Li+ ion exchange on La2/3-xLi3xTiO3: new metastable perovskite phases La2/3-xTiO3-3x(OH)3x and La2/3-xTiO3-3x/2 obtained by further dehydration. *Materials Research Bulletin* **1998,** *33* (11), 1681-1691.

380. Gopalakrishnan, J.; **Bhuvanesh**, N. S. P.; Vijayaraghavan, R.; Vasanthacharya, N. Y., A new charge density wave oxide, LiVMoO5, and its tungsten analog obtained by topotactic reduction of LiVMO6 (M = Mo, W) brannerites. *Journal of Materials Chemistry* **1997,** *7* (2), 307-310.

381. **Bhuvanesh**, N. S. P.; Gopalakrishnan, J., Solid-state chemistry of early transition-metal oxides containing d0 and d1 cations. *Journal of Materials Chemistry* **1997,** *7* (12), 2297-2306.

382. Gopalakrishnan, J.; **Bhuvanesh**, N. S. P.; Rangan, K. K., Towards rational synthesis of inorganic solids. *Current Opinion in Solid State & Materials Science* **1996,** *1* (2), 285-294.

383. **Bhuvanesh**, N. S. P.; Prasad, B. R.; Subramanian, C. K.; Gopalakrishnan, J., Nonlinear optical response of rutile-related oxides, LiMvMVIO6, and their derivatives obtained by ion-exchange and intercalation. *Chemical Communications (Cambridge)* **1996,** (3), 289-90.

384. **Bhuvanesh**, N. S. P.; Uma, S.; Subbanna, G. N.; Gopalakrishnan, J., Acid leaching of LiMW2O8 (M = Al, Fe) in aqueous HNO3: formation of WO3·H2O and WO3·1/3H2O. *Journal of Materials Chemistry* **1995,** *5* (6), 927-30.

385. **Bhuvanesh**, N. S. P.; Gopalakrishnan, J., Synthesis of Rutile-Related Oxides, LiMMoO6 (M = Nb, Ta), and Their Proton Derivatives. Intercalation Chemistry of Novel Broensted Acids, HMMoO6·H2O. *Inorganic Chemistry* **1995,** *34* (14), 3760-4.

386. Goplalakrishnan, J.; Uma, S.; Rangan, K. K.; **Bhuvanesh**, N. S. P., Soft-chemical routes to synthesis of solid oxide materials. *Proceedings - Indian Academy of Sciences, Chemical Sciences* **1994,** *106* (3), 609-19.

387. Gopalakrishnan, J.; Uma, S.; Rangan, K. K.; **Bhuvanesh**, N. S. P., Synthesis of novel metal oxides by soft-chemistry routes. *Materials Science Forum* **1994,** *152-153* (Soft Chemistry Routes to New Materials), 175-82.

388. Gopalakrishnan, J.; **Bhuvanesh**, N. S. P.; Raju, A. R., Soft Chemical Synthesis of New Layered and Three-Dimensional Oxide Hydrates, HxVxW1-xO3·yH2O, Related to WO3·2H2O and WO3·1/3H2O. *Chemistry of Materials* **1994,** *6* (4), 373-9.