**Publications - 2017 and in press – Carbon Related Papers**

1. Kripal S. Lakhi, Dae-Hwan Park, Khalid Al-Bahily, Wang Soo Cha, Balasubramanian Viswanathan, Jin-Ho Choy and  **A. Vinu\*,** Mesoporous Carbon Nitrides: Synthesis, Functionalization, and Applications, ***Chemical Society Review,*** 2017, 46, 72.
2. Gurudas P. Mane, Siddulu N. Talapaneni, Kripal S. Lakhi, Hamid Ilbeygi, Ugo Ravon, Khalid Al-Bahily, Toshiyuki Mori, Dae-Hwan Park, and **A. Vinu\*,** Highly Ordered Nitrogen-Rich Mesoporous Carbon Nitrides and Their Superior Performance for Sensing and Photocatalytic Hydrogen Generation, ***Angew. Chemie International Edition,*** 2017, 56, 8481-8485. (**Very Important Paper**).
3. Geoffrey Lawrence, Palraj Kalimuthu, Mercy Benzigar, Kinnari J. Shelat, Kripal S. Lakhi, Dae-Hwan Park, Qingmin Ji, Katsuhiko Ariga, Paul V. Bernhardt and **A. Vinu\***, A Nano-porous Cytochrome c Film with Highly Ordered Porous Structure for Selective Sensing of Toxic Vapours, ***Adv. Mater.*** 2017, In press.
4. Kripal S. Lakhi, Dae-Hwan Park\*, Gurwinder Singh, Siddulu Naidu, Ugo Ravon, Khalid Al-Bahily, and **A. Vinu\*,** Energy efficient synthesis of highly ordered mesoporous carbon nitrides with uniform rods and their superior CO2 adsorption capacity, ***Journal of Materials Chemistry A,*** 2017, 5, 16220-16230.
5. Deepak Dubal, Nilesh Chodankar, **A. Vinu,** Do-Heyoung Kim, Pedro Gomez-Romero, Asymmetric supercapacitors based on rGO-PMo12 as a positive and rGO-PW12 as a negative electrode, **ChemSusChem,** 2017, 10, 2742-2750.
6. Siddulu Naidu Talapaneni, Gurudas P. Mane, Dae-Hwan Park, Kripal S. Lakhi, Kavitha Ramadass, Ugo Ravon, Khalid Al-Bahily, and **A. Vinu\*,** Diaminotetrazine Based Well-Ordered and 3D Mesoporous C3N6 with Cubic Structure and their Excellent Photocatalytic Performance on Hydrogen Evolution ***J. Mater. Chem. A.*** 2017, Accepted.
7. Dae-Hwan Park, Kripal S. Lakhi, Kavitha Ramadass, Min-Kyu Kim, Siddulu N. Talapaneni, Stalin Joseph, Ugo Ravon, Khalid Al-Bahily, and **A. Vinu\*,**  Energy efficient synthesis of ordered mesoporous carbon nitrides with a high nitrogen content and enhanced CO2 capture capacity, ***Chem. Eur. J.*** 2017, 23, 10753-10757.
8. Gurwinder Singh, Kripal S. Lakhi, In Young Kim, Sungho Kim, Prashant Srivastava, Ravi Naidu, and **A. Vinu\***, Activated Micro and Mesoporous Biocarbons with Extremely High Surface Area for High Pressure CO2 Adsorption, ***ACS Applied Materials and Interface,* 2017, *In press***.
9. Kripal S. Lakhi, Dae-Hwan Park, Stalin Joseph, Siddulu. N. Talapaneni, Ugo Ravon, Khalid Al-Bahily, and **A. Vinu\*,** Effect of heat treatment on the nitrogen content and its role on the CO2 adsorption capacity of highly ordered mesoporous carbon nitride, ***Chemistry - An Asian Journal,*** 2017, In press.
10. Gurwinder Singh, In Young Kim, Kripal S. Lakhi, Prashant Srivastava, Ravi Naidu and **A. Vinu\*,** Single step synthesis of activated biochar with a high surface area and its excellent CO2 adsorption capacity, 2017, **Carbon,** 116, 448-455,
11. Lellala Kashinath, Keerthiraj Namratha, Shivanna Srikantaswamy, **A. Vinu,** Kullaiah Byrappa, Microwave treated sol–gel synthesis and characterization of hybrid ZnS–RGO composites for efficient photodegradation of dyes, ***New Journal of Chemistry,*** 2017,41, 1723-1735..
12. Pt-Ru Nanoparticles Functionalized Mesoporous Carbon Nitride with Tunable Pore Diameters for DMFC Applications, M. Bello, S. M. Javaid Zaidi, Amir Al-Ahmed, S. Basu, D.-H. Park, K. S. Lakhi, **A. Vinu\*, *Microporous and Mesoporous Materials,*** 2017, 252, 50-58.
13. A. Abdullah, A. M Al-Enizi, A Elzatahry, **A. Vinu,** H. Iwai, S. Al-Deyab, High Electrocatalytic performance of Nitrogen-Doped Carbon Nanofiber - Supported Nickel Oxide Nanocomposite for Methanol Oxidation in Alkaline Medium, ***Applied Surface Science,*** 2017, 401, 306-313.
14. Siddulu Naidu Talapaneni, Keisuke Fugane, **A. Vinu\*,** and Toshiyuki Mori\* Highly Efficient Electrocatalysis of Metal-free, Graphitic and Sustainable Nitrogen Doped Mesoporous Carbon towards Oxygen Reduction Reaction, ***Advanced Porous Materials.*** 2017, 5, 26-35.
15. Stalin Joseph, Yoshihiro Sugi,\* Kavitha Ramadass, Baskaran Rajesh, and **A. Vinu,** Zeolite as Molecular Reactor. The Isopropylation of Biphenyl over H-Mordenite, IJCEA, 2017, accepted.
16. Wang Soo Cha, Stalin Joseph, Kripal Singh Lakhi, Daehwan Park, Siddulu N. Talapaneni, Abdullah M. Al-Enizi, Devaraju M. Kadampaia, **A. Vinu\*,** Excellent Supercapacitance Performance of 3D Mesoporous Carbon with a Large Pores from FDU-12 Prepared by Microwave Method, ***Journal of Materials Chemistry A,* 2017,** Came for revisions.
17. Stalin Joseph, Devaraju M. Kempaiah, Mercy Benzigar, Arun V. Baskar, Siddulu N. Talapaneni, Sung Hwa Jhung, Daehwan Park, and **A. Vinu\*,** Metal organic framework derived mesoporous carbon nitrides with a high specific surface area and Cr2O3 nanoparticles for CO2 and hydrogen adsorption, ***Journal of Materials Chemistry A, 2017, Submitted.***
18. Gurwinder Singh, In Young Kim,\* Kripal S. Lakhi, Stalin Joseph, Prashant Srivastava, Ravi Naidu and **A. Vinu\*,** Heteroatom functionalized activated porous biocarbons and their excellent performance for CO2 capture at high pressure, ***Journal of Materials Chemistry A, 2017, Submitted.***
19. Highly ordered mesoporous carbons with high specific surface area from Coca-Cola® prepared via nanotemplating method and their application in supercapacitors, Stalin Joseph, Devaraju M. Kempaiah, Mercy Benzigar, Hamid Ilbeygi, Gurwinder Singh, Siddulu N. Talapaneni, and **A. Vinu\*, *ACS Applied Materials and Interfaces,*** 2017,.
20. Gurwinder Singh, Kripal S. Lakhi, Hamid Ilbeygi, Dae-Hwan Park, Prashant Srivastava, Ravi Naidu, and **A. Vinu\*,** Facile one pot synthesis of novel nitrogen containing activated biocarbons from biomass and inexpensive urea for CO2 capture, ***Microporous and Mesoporous Materials,*** 2017, Submitted.

**- 2016-**

1. M. Suresh, C. Anand, J.E. Frith, D.S. Dhawale, V.P. Subramaniam, E. Strounina, C.I. Sathish, K. Yamaura, J. Cooper-White, and A. Vinu, Fluorescent and Magnetic Mesoporous Hybrid Material: A Chemical and Biological Nanosensor for Hg2+ Ions, ***Nature Scientific Reports,*** 2016, 6: 218820.
2. Siddulu Naidu Talapaneni, Daehwan Park, Jin-Ho Choy, Kavitha Ramadass, Ahmed S. Al Balawi, Abdullah M. Al-Enizi, Toshiyuki Mori, and **A. Vinu\*,** Facile synthesis of crystalline nanoporous GaN templated by nitrogen enriched mesoporous carbon nitride for Friedel-Crafts reaction, **ChemistrySelect,** 2016, 1 (19), 6062-6068.
3. Kripal S. Lakhi, Wang S. Cha, Jin-Ho Choy, Maryam Al-Ejji, Aboubakr M. Abdullah, and **A. Vinu\*,** Synthesis of Mesoporous Carbons with Controlled Morphology and Pore Diameters from SBA-15 Prepared through the Microwave Assisted Process and their CO2 Adsorption Capacity, ***Microporous and Mesoporous Materials,*** 2016, 233, 44-52.
4. Ulka Suryavanshi, Arun V. Baskar, Veerappan V. Balasubramanian, Salem S. Al-Deyab, Abdullah Al-Enizi, and **A. Vinu\*,** Growth and Physico-Chemical Properties of Interconnected Carbon Nanotubes in FeSBA-15 Mesoporous Molecular Sieves, ***A. Journal of Chemistry,*** 2016, 9, 171-178.
5. Myung Hun Kim, Yong Joo Jun, Ahmed Elzatahry, Zeid A. Alothman, **A. Vinu,** Young Bin Choy, and Jin-Ho Choy Hydrophobic Guest Mediated Micellization and Demicellization of Rationally Designed Amphiphilic Poly(organophosphazene) for Efficient Drug Delivery, **Sci. Adv. Mater.** 2016, 8, 1553–1562.

**- 2015-**

1. Jeonghun Kim, Byeonggwan Kim, Chokkalingam Anand, Ajayan Mano, Javaid SM Zaidi, Katsuhiko Ariga, Jungmok You, Eunkyoung Kim and **A. Vinu\*,** A Single Step Synthesis of Electroactive Mesoporous ProDOT-Silica Structures, ***Angew. Chemie International Edition,***  2015, 127 (29), 8527-8530.
2. Jae-Hun Yang, Wei Zhang, Hyunju Ryu, Ji-Hee Lee, Dae-Hwan Park, J. Yoon Choi, **A. Vinu,** Ahmed A. Elzatahry, and Jin-Ho Choy, Influence of anionic surface modifier on thermal stability and mechanical properties of layered double hydroxide/polypropylene nanocomposites, ***J. Mater. Chem. A. 2015,*** 3, 22730-22738.
3. Lin Zhong, Anand Chokkalingam, Kripal Lakhi, Geoffrey Lawrence, and **A. Vinu\*,** Bifunctional mesoporous carbon nitride: highly efficient enzyme-like catalyst for one-pot deacetalization-Knoevenagel reaction, ***Nature Scientific Reports,*** 2015, 5, 12901.
4. L. Jia, G. Lawrence, V.V. Balasubramanian, Goeun Choi, J.-H Choy, A.M. Abdullah, A. Elzatahry, K. Ariga, **A. Vinu\*,** Highly Ordered Nanoporous Carbon Films with Tunable Pore Diameters and their Excellent Sensing Properties, ***Chemistry A European J.,*** 2015, 21, 697 – 703.
5. Dattatray S. Dhawale, Gurudas P. Mane, Stalin Joseph, Siddulu N. Talapaneni, Chokkalingam Anand, Ajayan Mano, Salem S. Aldeyab, Kripal S. Lakhi and **A. Vinu\*,** Cobalt oxide functionalized nanoporous carbon electrodes and their excellent supercapacitive performance, ***RSC Advances,*** 2015, 5, 13930.
6. G. Choi, Ga-Young Park, A. Elzatahry, A. Vinu, J.-H. Yang, C.H Yo, J.-H. Choy, Intercalative Ion-exchange Route to Amino Acid-Layered Double Hydroxide Nanohybrids and their Sorption Properties, ***European J. Inorganic Chemistry,*** 2015, 925-930 ***(Highlighted as a cover image).***
7. Kripal S. Lakhi, Arun V. Baskar, Javaid S.M. Zaidi, Salem S. Al-Deyab, Mohamed El-Newehy, and Ajayan Vinu\*, Morphological Control of Mesoporous Carbon Nitrides and their Excellent CO2 Adsorption Capacity, ***RSC Advances,*** 2015, 5, 40183 - 40192.
8. Lin Zhong, Anand Chokkalingam, Wang S. Cha, Kripal S. Lakhi, Xiangyang Su, Geoffrey Lawrence, and **A. Vinu\*,** Pd Nanoparticles Embedded in Mesoporous Carbon: Highly Efficient Catalysts for Suzuki-Miyaura Reaction, ***Catalysis Today,*** 2015,243, 193-198.
9. Kripal S. Lakhi, Wang Soo Cha, Stalin Joseph, Barry J. Wood, Salem S. Aldeyab, Geoffrey Lawrence, Jin-Ho Choy, and **A. Vinu\*,** Cage Type Mesoporous Carbon Nitride with Large Mesopores for CO2 Capture, ***Catalysis Today,*** 2015, 4, 209–217.
10. Xiangyang Su, Suzhen Han, Ajayan Vinu, Salem S. Aldeyab, Lin Zhong, Highly uniform Pd nanoparticles supported on g-C3N4 for efficiently catalytic Suzuki-Miyaura reactions, ***Catalysis Letters,*** 2015, 145, 1388–1395.

 **-2014 –**

1. L. Jia, H. Wang, D. Dhawale, C. Anand, M. A. Wahab, Q. Ji, K. Ariga, and **A. Vinu\*,** Highly Ordered Macro-mesoporous Carbon Nitride Film: A Novel Photo Switch Sensor for Selective Detection of Acidic/Basic Molecules, ***Chemical Communications, 2014, 50 (45), 5976 - 5979*** (IF = 6.4).
2. Rajashree Chakravarti, Lakshmi Kantam, Hideo Iwai, Salem S. Aldeyab, Katsuhiko Ariga, Dae-Hwan Park, Jin-Ho Choy, Kripal Singh Lakhi, **A. Vinu\*,** Mesoporous Carbons Functionalized with Aromatic, Aliphatic and Cyclic Amines and their Superior Catalytic Activity, ***ChemCatChem,***2014, 6, 2872-2880.
3. Ulka Suryavanshi, Veerappan V. Balasubramanian, Kripal S. Lakhi, Gurudas P. Mane, Katsuhiko Ariga, Jin-Ho Choy, Dae-Hwan Park, Abdullah M. Al-Enizi and **A. Vinu\*,** Mesoporous BN and BCN nanocages with high surface area and spherical morphology, ***Physical Chemistry and Chemical Physics,*** 2014, 16 (43), 23554 - 23557.
4. C. A. Antonyraj, D. N. Srivastava, G. P. Mane, S. Sankaranarayanan, **A. Vinu,** and K. Srinivasan, Co3O4 microcubes with exceptionally high conductivity using CoAl layered double hydroxide precursor via soft chemically synthesized cobalt carbonate, ***J. Mater. Chemistry A,*** 2014, 2 (18), 6301 - 6304, Accepted (IF = 6.11).
5. Sher Alam, Chokkalingam Anand, Kripal Singh Lakhi, Jin Ho Choy, Wang Soo Cha, Ahmed Elzhatry, S.S. Aldeyab, Yutaka Ohya, and **A. Vinu\*,** Highly magnetic nanoporous carbon/iron oxide hybrid materials, ***ChemPhysChem,***2014, 15 (16), 3440-3443.
6. F. N. Sayed, R. Sasikala, O.D. Jayakumar, R. Rao, C.A. Betty, A. Chokkalingam, R. M. Kadam, Jagnnath, S. R. Bharadwaj, **A. Vinu** and A.K.Tyagi Photocatalytic hydrogen generation from water using a hybrid of graphene nanoplatelets and self-doped TiO2, ***RSC Advances,*** 2014, 4, 13469 ((IF = 2.56).
7. M. J. Yu, **A. Vinu,** S.H. Park, J.-K. Jeon, S.H. Jhung, Y.-K. Park, Application of MCN-1 to the Adsorptive Removal of Indoor Formaldehyde, ***Sci. Adv. Mater.*** 2014, 6, 1511-1515. (IF = 3.308)
8. G. Lawrence, S. Eugine, C. Anand, E. Strounina, **A. Vinu\*,** Microwave-Assisted High Temperature Synthesis of Mesoporous Nanocages with Ultra-large Pores and their Superior Adsorption Capacity for Biomolecules, ***Science of Advanced Materials,*** 2014, 6, 1481-1488.

**-2013 -**

1. G. P. Mane, D. S. Dhawale, C. Anand, K. Ariga, Q. Ji, M. Abdel Wahab, T. Mori and **A. Vinu\*,** Selective Sensing Performance of Mesoporous Carbon Nitride with Highly Ordered Porous Structure Prepared from 3-Amino-1, 2, 4-Triazine, ***J. Materials Chemistry A,*** 2013, 1, 2913*.* (IF = 6.10)
2. Nanoporous Carbon Sensor with Cage-in-Fibre Structure: Highly-Selective Aromatic-Amine Adsorbent towards Cancer Risk Management, Y. Kosaki, H. Izawa, S. Ishihara, K. Kawakami, M. Sumita, Y. Tateyama, Q. Ji, V. Krishnan, S. Hishita, Y. Yamauchi, J. Hill, **A. Vinu\*,** S. Shiratori, K. Ariga, ***ACS Applied Materials and Interface,*** 2013, 5, 2930-2934. (IF = 5.01)
3. Dattatray S. Dhawale, Gurudas P. Mane, Stalin Joseph, Chokkalingam Anand, Katsuhiko Ariga, and **A. Vinu\*,** Enhanced supercapacitor performance of n-doped mesoporous carbons prepared from gelatin biomolecule, ***ChemPhysChem,*** 2013, 14(8), 1563-1569. (IF = 3.35)
4. K. Kuntaiah, P. Sudarsanam, B. M. Reddy and **A. Vinu,** Nanocrystalline Ce1–xSmxO2–δ (x = 0.4) solid solutions: structural characterization versus CO oxidation, ***RSC Advances,*** 2013, 3, 7953-7962. (IF =2.56 )
5. C. Anand,\* S. V. Priya, G. Lawrence, G. P. Mane, D. S. Dhawale, K. S. Prasad, V. V. Balasubramanian, M. A. Wahab,  and A. Vinu\*, Transesterification of ethylacetoacetate catalysed by metal free mesoporous carbon nitride, ***Catalysis Today*** 2013, 204, 164-169. (IF = 2.98)
6. K.P.S Prasad, D.S. Dhawale, S. Joseph, C. Anand, M. A. Wahab, S. Varghese, A. Mano, C. I. Satish, V. V. Balasubraminan, T. Sivakumar, **A. Vinu\*,** Post-synthetic functionalization of mesoporous carbon electrodes with copper oxide nanoparticles for supercapacitor application, ***Micr. Meso. Mater.*** 2013, 172, 77-86***.*** (IF = 3.37; **One of the 25 hottest articles published in this journal during April to June 2013**)
7. L. Samiee, F.Shoghi, **A.Vinu\*,** Fabrication and Electrocatalytic Application of Functionalized nanoporous Carbon Material with Different Transition Metal Oxides, ***Applied Surface Science,*** 2013, 265, 214-221. (IF = 2.11)
8. Welcome to the Advanced Porous Materials, A Vinu, ***Advanced Porous Materials,*** 2013, 1 (1), 1-3.
9. New Ideas for Mesoporous Materials, **A. Vinu\*** and K. Ariga, ***Advanced Porous Materials,*** 2013, 1, 63-71.

**-2012-**

1. \*J. Kim, C. Anand, S. N. Talapaneni, J. You, Salem S. Aldeyab, E. Kim and **A.Vinu\*,** Catalytic Polymerization of Anthracene in a Recyclable SBA-15 Reactor with High Iron Content by a Friedel–Crafts Alkylation, ***Angew Chemie International Edition,*** 2012, 51, 2859-2863 **(Highlighted as the Inside Cover of the Issue)**. (IF = 13.74)
2. \*G. P. Mane, S. N. Talapaneni, C. Anand, S. Varghese, H. Iwai, Q. Ji, K. Ariga, T. Mori, **A. Vinu\*,** Preparation of Highly Ordered Nitrogen Containing Mesoporous Carbon from Gelatin Biomolecule and its Excellent Sensing Performance to Acetic Acid, ***Advanced Functional Materials,*** 2012, 22, 3596-3604. (IF = 9.77)
3. S. N. Talapaneni, G. P. Mane, A. Mano, T. Mori, and **A. Vinu\*,** Synthesis of Nitrogen Rich Mesoporous Carbon Nitride with Tunable Pores, Band Gaps and Nitrogen Content from a Single Aminoguanidine Precursor, ***ChemSusChem,*** 2012, 5, 700-708. (IF = 7.46)
4. K. Ariga, Q. Ji, M.J. McShane, Y.M. Lvov, **A. Vinu,** J.P. Hill, Inorganic Nanoarchitectonics for Biological Applications, ***Chem. Mater.,*** 2012,24, 728-737 (**Selected as one of the top 10 articles published in Chem Mater in 2012**). IF = 8.24)
5. \*L. Jia, G. P. Mane, C. Anand, S. N. Talapaneni, D. S. Dhawale, S. Varghese, Q. Ji, K. Ariga, and **A. Vinu\*,** A Facile Photo-induced Synthesis of COOH Functionalized Meso-macroporous Carbon Film and its Excellent Sensing Capability for Aromatic Amines, ***Chemical Communications,*** 2012, 48, 9029-9031. (IF = 6.38)
6. Siddulu N. Talapaneni, S. Anandan, Gurudas P. Mane, C. Anand, S. Varghese, A. Mano, T. Mori, and **A. Vinu\*,** Facile synthesis and basic catalytic application of 3D mesoporous carbon nitride with a controllable bimodal distribution, ***J. Mater. Chem.*** 2012, 22, 9831-9840. (IF = 6.10)
7. Snehal Wanjari, Chandan Prabhu, T. Satyanarayana, A. Vinu, Sadhana Rayalu, Immobilization of carbonic anhydrase on mesoporous aluminosilicate for carbonation reaction, ***Microporous and Mesoporous Materials,*** 2012, 160, 151-158. (IF = 3.37)
8. L. Sterk, J. Górka, **A. Vinu,** and M. Jaroniec, Soft-templating synthesis of ordered mesoporous carbons in the presence of tetraethyl orthosilicate and silver salt, ***Microporous and Mesoporous Materials***, 2012, 156, 121-126. (IF = 3.37)
9. U. Balakrishnan, N. Ananthi, S. Velmathi\*, M. R. Benzigar, S. N. Talapaneni, Salem S. Aldeyab, K. Ariga, and **A. Vinu\*,** Immobilization of Chiral Amide Derived from (1R,2S)-(-)-Norephedrine over 3D Nanoporous Silica for the Enantioselective Addition of Diethylzinc to Aldehydes,  ***Microporous and Mesoporous Materials,*** 2012,155, 40-46. (IF = 3.37)
10. D.S. Dhawale, M. R. Benzigar, M.A. Wahab, C. Anand, S.Varghese, V. V. Balasubramanian, S. S. Aldeyab,K. Ariga and **A. Vinu\*,** Fine tuning of the supercapacitive performance of nanoporous carbon electrode with different pore diameters, ***Electrochimica Acta,*** 2012, 77, 256-261. (IF = 3.78)
11. K. Ariga, **A. Vinu,** Y. Yamauchi, Q. Ji, J.P. Hill, Nanoarchitechtonics for Mesoporous Materials, ***Bull. Chem. Soc. Jpn.,*** 2012, 85 (1), 1-32 **(Selected as one of the top cited articles in Chemistry in 2012).** (IF = 1.436)
12. P.K. Raja, A. Chokkalingam, S. V. Priya, V. V. Balasubramanian, M. R. Benzigar, S. S. Aldeyab, R. Jayavel, K. Ariga and **A. Vinu\*,** Highly Basic CaO Nanoparticles in Mesoporous Carbon Materials and Their Excellent Catalytic Activity, ***J. Nanosci. Nanotech.*** 2012, 12, 4613-4620. (IF = 1.563)
13. P. K. Raja, A. Chokkalingam, S. V. Priya, M. A. Wahab, D. S. Dhawale, G. Lawrence, K. Ariga, R. Jayavel and **A. Vinu\*,** Mesoporous Carbon Encapsulated with SrO Nanoparticles for the Transesterification of Ethyl Acetoacetate, ***J. Nanosci. Nanotech.,*** 2012, 12, 8467-8474. (IF = 1.563)

 **-2011 -**

1. K.K.R. Datta, V.V. Balasubramanian, K. Ariga, T. Mori, and **A. Vinu\***,Highly Crystalline and Conductive Nitrogen Doped Mesoporous Carbon with Graphitic Walls and its Electrochemical Performance, ***Chem. Eur. J.*** 2011, 17, 3390-3397. (IF = 5.925)
2. R. Chakravarti, A. Mano, H. Iwai, Salem S. Aldeyab, R. Pradeep Kumar, M. Lakshmi Kantam, **A. Vinu\*** Functionalization of Mesoporous Carbon with Superbasic MgO Nanoparticles for the Efficient Synthesis of Sulfinamides, ***Chem Eur. J.*** 2011, 17, 6673. (IF = 5.925)
3. L.C. Sang, **A. Vinu\*,** and M.O. Coppens, Ordered Mesoporous Carbon with Tunable, Unusually Large Pore Size and Well-Controlled Particle Morphology, ***J. Mater. Chem.*** 2011, 21 (20), 7410-7417. (IF = 5.968)
4. S. Tamil Selvan, Salem S. Aldeyab, D. Arivuoli, T. Mori, **A.Vinu\***, Preparation of highly ordered mesoporous SiOC with rod shaped morphology and tunable pore diameters using polycarbosilane precursor, ***J. Mater. Chem.*** 2011, 21, 8792. (IF = 5.968)
5. D.S. Dhawale, **A. Vinu,** C.D. Lokhande, Stable nanostructured polyaniline electrode for supercapacitor application, ***Electrochimica Acta,*** 2011, 56, 9482-9487. (IF = 3.832)
6. K.S. Prasad, D. S. Dhawale, T. Sivakumar, Salem S. Aldeyab, Javaid SM Zaidi, K. Ariga***,* A. Vinu\*,**Fabrication and textural characterization of CuO nanoparticles encapsulated nanoporous carbon electrodes for supercapacitors, ***Science and Technology of Advanced Materials, 2011,*** 12, 044602. (IF = 3.513)
7. K. K. R. Datta, **A. Vinu,\*** S. Mandal, Salem Al-deyab, J. P. Hill, and K. Ariga, Carbon Nanocage: Super-Absorber of Intercalators for DNA Protection, ***J. Nanosci. Nanotech.*** 2011, 11(4), 3084-3090. (IF = 1.563)
8. S. Seo, J. Kim, B. Kim, **A. Vinu,** E. Kim, Highly ordered poly(thiophene)s prepared in mesoporous silica nanoparticles, ***J. Nanosci. Nanotech.*** 2011, 11, 4567-4572. (IF = 1.563)
9. B. Kim, J. Kim, S. N. Talapaneni, A. Vinu, and E. Kim, Preparation of Conductive Transparent Adhesive Films from Carbon Nanomaterials and Polar Acrylate, ***J. Nanosci. Nanotech.*** 2011, 11, 6306. (IF = 1.563)
10. S. Tamil Selvan, Salem S. Aldeyab, S. M. Javaid Zaidi, D. Arivuoli, K. Ariga, T. Mori, and **A. Vinu,\*** Morphological Control of Porous SiC Templated by As-synthesized Form of Mesoporous Silica, ***J. Nanosci. Nanotech.*** 2011, 11, 6823**.** (IF = 1.563)
11. K. K. R. Datta, **A. Vinu,\*** S. Mandal, Salem S. Aldeyab, J. P. Hill, and K. Ariga, Base-Selective Adsorption of Nucleosides to Pore-Engineered Nanocarbon, Carbon Nanocage, ***J. Nanosci. Nanotech.*** 2011, 11, 3959-3964. (IF = 1.563)

**-2010-**

1. \*K.K.R. Datta, B.V. Subba Reddy, K. Ariga, **A. Vinu\*,** Gold Nanoparticles Embedded in Nanoporous Carbon Nitride Stabilizer for Highly Efficient Three Component Coupling Reaction, ***Angew. Chem. Intl. Ed.*** 2010, 49, 5961-5965. (IF = 13.45)
2. \*Qingmin Ji, Itaru Honma, Seung-Min Paek, Misaho Akada, Jonathan P. Hill, **A. Vinu** and Katsuhiko Ariga, Layer-by-Layer Films of Graphene and Ionic Liquids for Highly Selective Gas Sensing, ***Angew Chemie Intl. Ed.,*** 2010, 49, 9737-9739. (IF = 13.45)
3. P. Kalita, H. Oveisi, A. Mano, Murugulla A. Chari, and **A.Vinu\*,** Preparation and Characterization of Super Acid Functionalized Mesoporous Cage Type Silica with Different Pore Diameters and their Application in the Synthesis of Coumarin, ***Chem. Eur. J.*** 2010, 16, 2843-2851. (IF = 5.925)
4. E. Haque, J. W. Jun, S. Naidu Talapaneni, **A. Vinu** and S.H. Jhung, Superior Adsorption Capacity of Mesoporous Carbon Nitride with Basic CN Framework for Phenol, ***J. Mater. Chem.*** 2010, 20, 10801-10803. (IF = 6.98)
5. R. Logudurai, C. Anand, V. V. Balasubramanian, K. Ariga, P. Srinivasu, and **A. Vinu\*,** Fabrication of Mesoporous Carbons with Rod and Winding Road Morphology using NbSBA-15 Templates, ***J. Nanosci. Nanotech.,***  2010, 10, 329-335. (IF = 1.563)
6. S. Mandal, M.V. Lee, J.P. Hill, **A. Vinu,** and K. Ariga, Recent Developments in Supramolecular Approach for Nanocomposites, ***J. Nanosci and Nanotech.*** 2010, 10, 21-33. (IF = 1.563)
7. **A. Vinu\*,** Fabrication and Electrocatalytic Application of Nanoporous Carbon Material with Different Pore Diameters, ***Topics in Catalysis****,* 2010, 53, 291-296. (IF = 2.624)
8. K. Ariga, Q. Ji, J. P. Hill, and **A. Vinu,** Supramolecular Materials with Inorganic Building Blocks, ***J. Inorg. Organomet. Polymer. Mater.*** 2010, 20, 1-9. (IF = 1.452)
9. E. Haque, N. A. Khan, S. N. Talapaneni, **A. Vinu,** and S.H. Jhung, Adsorption of Phenol on Mesoporous Carbon CMK-3: Effect of Textural Properties, ***Bull. Korean Chem. Soc.***2010, 31 (6), 1638-1642. (IF = 0.906)
10. **A. Vinu,** K. Ariga, Novel way in catalyst technology: fabrication of metal nanoparticles in small cages, ***OHM,*** 2010, 97 (10), 8-9.

**-2009-**

1. \*X. Jin, V.V. Balasubramanian, S.T Selvan, D.P. Sawant, M.A. Chari, G. Q. Lu, and **A. Vinu\*,** Highly Ordered Mesoporous Carbon Nitride Nanoparticles with a High Nitrogen Content: a Novel Metal-free Basic Catalyst, ***Angew. Chemie Intl. Ed.*** 2009, 48 (42) 7884-7887**.** (IF = 13.45)
2. \*S. Alam, C. Anand, K. Ariga, T. Mori, and **A. Vinu\*,** Unusual Magnetic Properties of Size-Controlled Iron Oxide Nanoparticles Grown in a Nanoporous Matrix with Tunable Pores, ***Angew. Chemie Inter. Ed.*** 2009,48 (40), 7358-7361. (IF = 13.45)
3. Q. Ji, S.B. Yoon, J. Hill, **A. Vinu,** J.-S. Yu, and K. Ariga, Layer-by-Layer Films of Dual-Pore Carbon Capsules with Designable Selectivity of Gas Adsorption, ***J. Am. Chem. Soc.***(2009), 131, 4220-4221. (IF = 9.907)
4. Q. Ji, S. Acharya, J.P. Hill, **A. Vinu,** S.B. Yoon, J.-S. Yu, K. Sakamoto, and K. Ariga, Hierarchic Nanostructure for Auto-Modulation of Material Release: Mesoporous Nanocompartment Films, ***Adv. Funct. Mater.,*** 2009, 19, 1792-1799. (IF = 10.179)
5. K. Ariga, Q. Ji, J.P. Hill, and **A. Vinu,** Coupling of Soft Technology (Layer-by-layer Assembly) with Hard Materials (Mesoporous Solids) to Give Hierarchic Functional Structures, ***Soft Matter,*** 2009, 5, 3562-3571. (IF = 4.390)
6. P.F. Fulvio, **A. Vinu,** and M. Jaroniec, Nanocasting Synthesis of Iron-Doped Ordered Mesoporous Al-Ti-O Mixed Oxides Using Ordered Mesoporous Carbons Templates, ***J. Phys. Chem. C,*** 2009, 113, 13565-13573. (IF = 4.805)
7. M. Tadokoro, S. Tsumeda, N. Tsuhara, H. Nakayama, Y. Miyazato, K. Tamamitsu, and **A. Vinu**, K. Ariga, Electric Double-Layer Capacitance of Carbon Nanocages, ***J. Nanosci. Nanotech.*** 2009, *9*, 391-395. (IF = 1.563)

**-2008-**

1. \*K. Ariga, **A. Vinu**\*, Q. Ji, O. Ohmori, J. Hill, S. Acharya, J. Koike, and S. Shiratori, A Layered Mesoporous Carbon Sensor Based on Nanopore-Filling Cooperative Adsorption in the Liquid Phase, ***Angew. Chem. Int. Ed*.,** 2008, 47, 7254-7257. (IF = 13.45)
2. **A. Vinu\*,** Two dimensional Hexagonally Ordered Mesoporous Carbon Nitrides with Tunable Pore Diameter, Surface Area and Nitrogen Content, ***Adv. Funct. Mater.*** 2008, 18, 816-827. (**Selected as the cover image of the issue: Highlight**). (IF = 10.179)
3. Q. Ji, M. Miyahara, J.P. Hill, S. Acharya, **A. Vinu,** S.B. Yoon, J-S. Yu, K. Sakamoto, and K. Ariga, Stimuli-free Auto-Modulated Materials Release from Mesoporous Nano-compartment Films, ***J. Am. Chem. Soc.,*** 2008, 130, 2376-2377. **(Highlighted in the News and Views of Nature Materials, 2008)**. (IF = 9.907)
4. M. Terrones, J.-C. Charlier, A. Gloter, E. Cruz-Silva, E. Terrés, Y.B. Li, **A. Vinu,** Z. Zanolli, J.M. Dominguez, H. Terrones, Y. Bando, and D. Golberg, Experimental and Theoretical Studies Suggesting the Possibility of Metallic Boron Nitride Edges in Porous Nanourchins, ***Nano Lett.,*** 2008, 8, 1026-1032. (IF = 13.198)
5. S. Alam, S.K. Mondal, J.P. Hill, and **A. Vinu,\*** “Iron Oxide Magnetic Nanoparticles Confined in Mesoporous Silica and Carbon Materials, ***World Scientific Publishing, Singapore,*** 2008, 519-528.
6. **A. Vinu\***, Novel Mesoporous Nitrides and Nitrogen Doped Carbon Materials with Different Structure, Pore Diameters, and Nitrogen Contents, ***World Scientific Publishing, Singapore,*** 2008, 303.
7. **A. Vinu\*,** S. Anandan, C. Anand, P. Srinivasu, , K. Ariga, and T. Mori, Fabrication of Partially Graphitic Three Dimensional Nitrogen-doped Mesoporous Carbon using Polyaniline Nanocomposite through Nanotemplating Method, ***Micropor. Mesopor. Mater.,*** 2008, 109, 398-404. (IF = 3.285)
8. P. Srinivasu, **A. Vinu\*,** S. Hishita, T. Sasaki, K. Ariga, and T. Mori, Preparation and Characterization of Novel Microporous Carbon Nitride with Very High Surface Area Via Nanocasting Technique, ***Micropor. Mesopor. Mater.,*** 2008, 108, 340-344. (IF = 3.285)
9. D.P. Sawant, J. Justus, and **A. Vinu,\*** Carboxyl, Amine and Thiol Functionalized Mesoporous Carbon Materials, ***World Scientific Publishing, Singapore,*** 2008, 313.
10. **A. Vinu,** and K. Ariga, Carbon Nanocage, ***Kogyo Zairyo*** 2008, 56, 8-9.
11. M. Takahashi, T. Mori, **A. Vinu,** J-D. Kim, H. Kobayashi, and J. Drennan, Development of High Quality Pt-CeO2 Electrodes Supported on Carbon Black for Direct Methanol Fuel Cell Applications, ***Advances in Applied Ceramics,*** 2008, 107, 57-63.(IF = 0.871)

**-2007-**

1. \*K. Ariga, **A. Vinu,\*** M. Miyahara, J.P. Hill, and T. Mori, One-Pot Separation of Tea Components through Selective Adsorption on Pore-Engineered Nanocarbon, Carbon Nanocage, ***J. Am. Chem. Soc.,*** 2007, 129, 11022-11023. (IF = 9.907)
2. K. Ariga, **A. Vinu,** J.P. Hill, and T. Mori, Coordination Chemistry and Supramolecular Chemistry in Mesoporous Nanospace, ***Coord. Chem. Rev.,*** 2007, 251, 2562-2591. (IF = 12.110)
3. **A. Vinu\*,** P. Srinivasu, D.P. Sawant, T.Mori, K. Ariga, J.-S. Chang, S.-H. Jhung, Y.K. Hwang, and V.V. Balasubramanian,Three dimensional cage type mesoporous CN-Based Hybrid Material with Very High Surface area and Pore Volume, ***Chem. Mater.,*** 2007, 19, 4367-4372. (IF = 7.286)
4. J. Wang, **A. Vinu,** and M.O. Coppens, Synthesis and Structure of Silicalite-1/SBA-15 Composites Prepared by Carbon Templating and Crystallization, ***J. Mater. Chem.*** 2007, 17, 4265-4273. (**Selected as the cover image of the issue: Highlight**). (IF = 5.968)
5. **A. Vinu\*,** K.Z. Hossain, P. Srinivasu, M. Miyahara, S. Anandan, N. Gokulakrishnan, T. Mori, K. Ariga, and V.V. Balasubramanian‚ Carboxy-Mesoporous Carbon and Its Excellent Adsorption Capability for Proteins, ***J. Mater. Chem.,*** 2007, 17, 1819-1825.(IF = 5.968)
6. **A. Vinu\*,** P. Srinivasu, T. Mori. T. Sasaki, A. Asthana, K. Ariga, and S. Hishita, Novel Highly Ordered Nitrogen-doped Mesoporous Carbon from SBA-15/Polyaniline Nanocomposite, ***Chem. Lett.*** 2007, 36, 770-771.(IF = 1.587)
7. P. Srinivasu, **A. Vinu\*,** N. Gokulakrishnan, S. Anandan, A. Asthana, T. Mori, and K. Ariga, Novel Microporous Carbon Material with Flower like Structure Templated by MCM-22, ***J. Nanosci. Nanotech.,*** 2007, 7, 2913-2916. (IF = 1.563)
8. **A. Vinu\*,** S. Anandan, N. Gokulakrishnan, P. Srinivasu,T. Mori, and K. Ariga**,** Mesoporous Nitrides Through Nano-Hard Templating Techniques, ***Solid State Phenomena****,*2007, 119,291-294.
9. **A. Vinu\*,** P. Srinivasu, M. Takahashi, T. Mori, V.V. Balasubramanian, and K. Ariga, Controlling the Textural Parameters of Mesoporous Carbon Materials, ***Micropor. Mesopor. Mater.,*** 2007, 100, 20-26. (IF = 3.285; **One of the 25 hottest articles published in this journal during April to June 2007**)
10. M. Takahashi, T. Mori, F. Ye, **A. Vinu,** H. Kobayashi, and J. Drennan, Design of High Quality Pt-CeO2 Composite Anodes Supported by Carbon Black for Direct Methanol Fuel Cell Application, ***J. Am. Ceram. Soc.,*** 2007, 90, 1291-1294. (IF = 2.272)
11. M. Murakami, T. Shimizu, M. Tansho, **A.** **Vinu,** K. Ariga, T. Mori, and K. Takegoshi, Two-dimensional 11B-11B Exchange NMR Study in Mesoporous Boron Carbon Nitride at 21.8 T, ***Solid State Nuclear Magnetic Resonance*** 2007, 31, 193-196.(IF = 1.712)
12. **A. Vinu \*,** T. Mori, S. Hishita, S. Anandan, V.V. Balasubramanian, and K. Ariga, One and Three Dimensional Mesoporous Carbon Nitride Molecular Sieves with Tunable Pore Diameters, ***Stud. Surf. Sci. Catal.*** 2007, 65, 905-908.
13. **A. Vinu\*,** K.Z. Hossain, S. Hishita, T. Mori, N. Gokulakrishnan, V.V. Balasubramanian, and K. Ariga, Synthesis of Well-Ordered Carboxyl Group Functionalized Mesoporous Carbon Using Non-Toxic Oxidant, (NH4)2S2O8, ***Stud. Surf. Sci. Catal.***  2007, 165, 909-912.
14. P. Srinivasu, V.V. Balasubramanian, L. Kumaresan, D.P. Sawant, X.Jin, S. Alam, K. Ariga, T. Mori, and **A. Vinu,\*** Carboxyl Group Functionalization of Mesoporous Carbon Nanocage through Reaction with Ammonium Persulfate, ***J. Nanosci. Nanotech.,*** 2007, 7, 3250-3256. (IF = 1.563)
15. P. Srinivasu, **A. Vinu\*,** T. Mori, and K. Ariga, Synthesis and Characterization of Microporous Carbon Material with High Surface Area, ***Trans. Mater. Res. Soc. Jpn.,*** 2007, 32, 999-1001.
16. **A. Vinu\*,** T. Mori, and K. Ariga, Preparation and Characterization of Carbon Nitride Nanocage,  ***Trans. Mater. Res. Soc. Jpn.,*** 2007, 32, 991-994.
17. S. Anandan, **A. Vinu\*,** T. Mori, and K. Ariga, Synthesis of Nitrogen-Doped Mesoporous Carbon using Templating Technique, ***Trans. Mater. Res. Soc. Jpn.,*** 2007, 32, 1003-1005.

**-2006-**

1. **A. Vinu\*,** K.Z. Hossain, and K. Ariga, Adsorption of L-Histidine over Mesoporous Carbon Molecular Sieves, ***Carbon,*** 2006, 44, 530-536.(IF = 5.378)
2. **A. Vinu\*,** M.Miyahara, and K. Ariga, Assemblies of Biomaterials in Mesoporous Media, ***J. Nanosci. Nanotechnol,*** 2006, 6, 1510-1532.(IF = 1.563)
3. **A. Vinu\*,** M. Miyahara, T. Mori, and K. Ariga, Carbon Nanocage: A Large Pore Cage-Type Mesoporous Carbon Material as an Adsorbent for Biomolecules, ***J. Porous Mater.,*** 2006, 13, 379-383.(IF = 1.238)
4. K. Ariga, **A. Vinu\*,** andM. Miyahara, Recent Progresses on Bio-Inorganic Nanohybrids, ***Curr. Nanosci.,*** 2006, 2, 197-210.(IF = 1.776)
5. M. Murukami, T. Shimuzu, M. Tansho,  **A. Vinu,** K. Ariga, and K. Takegoshi, Chemically Nonequivalent Sites in Mesoporous BCN Revealed by Solid-State NMR at High Magnetic Field 21.9T, ***Chem. Lett.****,* 2006, 35, 986-987. (IF = 1.587)
6. **A. Vinu\*,** T. Mori, and K. Ariga, New Families of Mesoporous Materials, ***Science and Technology in Advanced Materials,*** 2006, 7, 753-771. (IF = 3.513; **One of the 25 hottest articles published in this journal during July-September 2007**)
7. M. Takahashi, T. Mori, **A. Vinu,** H. Kobayashi, J. Drennan, and D.-R. Ou, Preparation and Anode Property of Pt-Ceo2 Electrodes Supported on Carbon Black for Direct Methanol Fuel Cell Applications, ***J. Materials Research,*** 2006, 21, 2314-2322. (IF = 1.434)
8. M. Takahashi, T. Mori, **A.** **Vinu,** H. Kobayashi, and J. Drennan, Synthesis and Anode Property of Pt-Ceo2 Electrode Material for Direct Methanol Fuel Cells Applications, ***Transactions of the Materials Research Society of Japan*,** 2006, 31, 887-863.

**-2005-**

1. **A. Vinu\*,** K. Ariga, T. Mori, D. Golberg, Y. Bando, , T. Nakanishi, and S. Hishita, Preparation and Characterization of Well Ordered Hexagonal Mesoporous Carbon Nitride, ***Adv. Mater.,*** 2005, 17, 1648-1652. (IF = 13.877)
2. M. Hartmann, **A. Vinu,** and G. Chandrasekar,Adsorption of Vitamin E on Mesoporous Carbon Molecular Sieves, ***Chem. Mater.,*** 2005, 17, 829-833. (IF = 7.286)
3. **A. Vinu\*,** M. Terrones, D. Golberg, S. Hishita, K. Ariga, and T. Mori, Synthesis of Mesoporous BN and BCN Exhibiting Large Surface Areas via Templating Method, ***Chem. Mater.,*** 2005, 17, 5887-5890. (IF = 7.286)
4. **A. Vinu\*,** M. Miyahara, and K. Ariga, Biomaterial Immobilization in Nanoporous Carbon Molecular Sieves: Influence of Solution pH, Pore Volume and Pore Diameter, ***J. Phys. Chem. B*** 2005, 109, 6436-6441. (IF = 3.696)
5. **A. Vinu\*,** M. Miyahara, V. Sivamurugan, T. Mori, and K. Ariga, Large Pore Cage Type Mesoporous Carbon, Carbon Nanocage: A Superior Adsorbent for Biomaterials, ***J. Mater. Chem.,*** 2005, 15, 5122-5127. (IF = 5.968)
6. **A. Vinu\*,** K.Z. Hossain and K. Ariga, Recent Advances in Functionalization of Mesoporous Silica, ***J. Nanosci. Nanotech.,*** 2005, 5(3), 347-375. (IF = 1.563)
7. **A. Vinu,** and M. Hartmann,Characterization and Microporosity Analysis of Mesoporous Carbon Molecular Sieves by Nitrogen and Organics Adsorption, ***Catalysis Today,***2005, 102, 189-196. (IF = 3.407)
8. **A. Vinu\*,** K.Z. Hossain, G. Satishkumar, V. Sivamurugan, and K. Ariga, Adsorption of Amino Acid on Mesoporous Molecular Sieves, ***Stud. Surf. Sci. Catal.,*** 2005, 156, 631-636.
9. **A. Vinu\*,** M. Miyahara, K.Z. Hossain, T. Nakanishi, and K. Ariga, Adsorption of Lysozyme over Mesoporous Carbons with Various Pore Diameters, ***Stud. Surf. Sci. Catal.,*** 2005, 156, 637-642.
10. **A. Vinu\*,** M.Miyahara, and K. Ariga, Preparation and Pore Size Control of Cage Type Mesoporous Carbon Materials and Their Application in Protein Adsorption, ***Stud. Surf. Sci. Catal.,*** 2005, 158 B, 971-978.
11. M. Miyahara, **A. Vinu,** K.Z. Hossain, T. Nakanishi, and K. Ariga, Fabrication of Mesoporous Carbon Materials as Adsorbents for Biomolecules, ***Trans. Mater. Res. Soc. Jpn.,*** 2005, 30, 541-544.
12. T. Mori, M. Takahashi, **A. Vinu,** S. Takenouchi, J.-D. Kim, H. Kobayashi, J. Drennan, Development of high quality Pt-CeO2based anode materials for direct methanol fuel cell applications, **IEEE,** 928-932.
13. M. Takahashi, T. Mori, **A. Vinu**, , H. Kobayashi, J. Drennen, and C. Nishimura, Preparation and Characterization of Pt-CeO2 Electrodes Supported by Conductive Carbon Materials for Direct Methanol Fuel Cell Applications, ***Materials Processing for Properties and Performance,*** 2005, 4, 107-110.
14. **A. Vinu\*,** and K. Ariga, Novel Nanocarbon, Carbon Nanocage, ***Hyomen****,* 2005, 43, 605-615.

**-2004-**

1. M. Miyahara, **A. Vinu\*,** T. Nakanishi, and K. Ariga, Bio/Carbon Nanomaterials―The Adsorption of Lysozyme over Mesoporous Carbon　Molecular　Sieves, ***Kobunshi Ronbunshu,*** 2004, 61, 623-627. (IF = 0.129)

**-2003-**

1. **A. Vinu**, C. Streb, V. Murugesan, and M. Hartmann, Adsorption of Cytochrome C on New Mesoporous Carbon Molecular Sieves, ***J. Phys. Chem. B,*** 2003, 107, 8297-8299. (IF = 3.696)

**Patents Applied**

1. **A. Vinu,** Gurudas P Mane, Ugo Ravon, Khalid Al-Bahily, Mesoporous Triazole And Urea Based Carbon Nitride Material, **US. Provisional Patent Application No 62/377,793**
2. Siddulu N. Talapaneni, **A. Vinu,** Ugo Ravon , Khalid Al-Bahily, Synthesis of a three dimensional carbon nitride derived from Cyanamide and its use in the knoevenagel reaction, **US. Provisional Patent Application No 62/377,812**
3. Kripal S. Lakhi, Ugo Ravon, Khalid Al-Bahily, **A. Vinu,** Rod shaped mesoporous carbon nitride materials and uses thereof, **US. Provisional Patent Application No 62/377,857**
4. Siddulu N. Talapaneni, **A. Vinu,** Ugo Ravon , Khalid Al-Bahily, Nitrogen rich nitride material with a three dimensional cubic Mesoporosity from diaminotetrazine, **U.S. Provisional Patent Application No. 62/367,843**
5. **A. Vinu,** Gurudas P Mane, Ugo Ravon , Khalid Al-Bahily, Preparation of nitrogen rich three dimensional mesoporous carbon nitride and its sensing and photocatalytic properties, **U.S. Provisional Patent Application No. 62/367,843.**
6. Dae-Hwan Park, Kripal S. Lakhi, J. Scaranto, K. Al-Bahily, U. Ravon, **A. Vinu,** Nitrogen-rich 3D mesoporous carbon nitrides: Graphitic C3N6 derived from 3-amino-1,2,4-triazole with urea via calcination-free KIT-6 silica templates, **US. Provisional Patent Submitted, 2017.**
7. Kripal S. Lakhi, Dae-Hwan Park, J. Scaranto, K. Al-Bahily, U. Ravon, **A. Vinu,** Synthesis of 3D Cage Type High Nitrogen Containing Mesoporous Carbon Nitride with Large Pores and High Surface Area From Novel Cyclic 3-Amino-1, 2, 4-Triazole precursor for Carbon capture and activation, **US. Provisional Patent Submitted, 2017**
8. Kripal S. Lakhi, Dae-Hwan Park, J. Scaranto, K. Al-Bahily, U. Ravon, **A. Vinu,** Green Synthesis of Nitrogen Rich 2D Mesoporous Carbon Nitride with Rod Shaped Morphology and Tuneable pore diameters from Novel Cyclic Amino Triazole Based Precursor for CO2 capture and activation, **US. Provisional Patent Submitted, 2017.**
9. Kripal S. Lakhi, Dae-Hwan Park, J. Scaranto, K. Al-Bahily, U. Ravon, **A. Vinu,** 3D Cage Type High Nitrogen Containing Mesoporous Carbon Nitride from 1,3-Diamino-Guanidine precursors for CO2 capture and conversion, **US. Provisional Patent Submitted, 2017.**
10. Dae-Hwan Park, Kripal S. Lakhi, J. Scaranto, K. Al-Bahily, U. Ravon, **A. Vinu,** Mesoporous Carbon Nitride Nanocage with Bimodal Porous Structure for CO2 activation, **US. Provisional Patent Submitted, 2017.**
11. In Young Kim, Sungho Kim, J. Scaranto, K. Al-Bahily, U. Ravon, **A. Vinu,** 3D amino tetrazole-based carbon nitrides and its application as CO2 adsorbents and catalysts for CO2 conversion, **US. Provisional Patent Submitted, 2017.**
12. In Young Kim, Sungho Kim, J. Scaranto, K. Al-Bahily, U. Ravon, **A. Vinu,** 2D mesoporous amino tetrazole-based carbon nitrides and their applications as CO2 adsorbents and catalysts for CO2 conversion, **US. Provisional Patent Submitted, 2017**
13. Kavitha Ramadass, Min-Kyu Kim, Ugo Ravon, J. Scaranto, Khalid Al-Bahily, and **A. Vinu,** 3D Carbon nitride Catalyst Composition derived from amino tetrazole and the use for epoxidation of olefins through CO2 activation, **US. Provisional Patent Submitted, 2017.**
14. **A. Vinu,** R. Chakravarti, K. Ariga, T. Mori, Amine Functionalized Mesopore Carbon Nanocage and Method for Manufacturing the Same, **JP 5765709; Appl. No. JP2011-156513, 15 July, 2011 (Granted).**
15. **A. Vinu,** L. Jia, K. Ariga, Q. Ji, T. Mori, Porous carbon film, method of manufacturing the same, and application using the same, JP2012250881-A; **Appl. No. JP 2011-125485, 3 June, 2011 (Granted).**
16. **A. Vinu,** L. Jia, K. Ariga, T. Mori, Q.M. Ji, Porous carbon nitride film for sensor and filter, has frame structure consisting of carbon nitride, and having mesopore and macropore which is regularly arranged in surface direction and has opening portion on surface, JP 2012250884-A; JP125611, 3 June, 2011 **(Granted)**
17. **A. Vinu,** L. Saravanan, D.S. Dhawale, K. Ariga, and T. Mori, “Porous copper sulfide, method for manufacturing the same, and use of the same”, Japanese Patent, **Appl. No. 2011-126344, 6 June, 2011 (Granted).**
18. **A. Vinu,** An ordered mesoporous fullerene with high specific surface area and fabrication method thereof, **JP 5316988; 2009-021407, 2 February, 2009 (Granted).**
19. **A. Vinu,** S. Anandan, T. Mori, K. Ariga, P. Srinivasu, Mesoporous carbon nitride material used for catalyst, lubricant and fuel cell, comprises dimensional cage-type cube mesoporous structure having specific space group, **WO2008126799-A1; JP2009509329-X; JP5521191-B2, 16 April, 2008 (Granted).**
20. **A. Vinu,** P. Srinivasu, K. Ariga, T. Mori, Metal-doped Mesoporous Silica (MeKIT-5) and Method for Producing the Same, **JP2009249242-A, Appl. No.2008-100264 (Applied).**
21. **A. Vinu,** T. Mori, K. Ariga, P. Srinivasu, Three Dimensional Cage Type Mesoporous Carbon Nitride and a Method for Preparing the Same,Application　No.: **2007-99062**, Application date: 5 April, 2007.Our Ref.:06-MS-161 **(Applied)**
22. **A. Vinu,** P. Azhagapillai, V.V. Balasubramanian, T. Mori, P. Srinivasu, Novel Synthesis of Mesoporous Silica Nanocoop Materials (SNC-1), **JP 5246841A,** Appl. No. **2007-231045, 6 September, 2007 (Granted).**
23. **A. Vinu,** P. Srinivasu, D.P. Sawant, T. Mori, K. Ariga, C. Anand, Cage Type Mesoporous Carbon (CNP-1) and Method for Producing the Same, JP2009173523-A; JP5388051-B2; **JP2009062219A; Submitted, 2007-231037 (Granted).**
24. **A. Vinu,** P. Srinivasu, T. Mori, K. Ariga, J. Justus, V.V. Balasurbramanian, Mesoporous Carbon (MC-MCM-48) and Method for Producing the Same, submitted. **JP 5388051; 2008-274047; 24 October, 2008 (Granted).**
25. **A. Vinu,** V.V. Balasubramanian, T. Mori, P. Srinivasu, A. Vinu, Cage Type Mesoporous Silica (SNC-2), Method for Producing the Same and Absorbent Using the Same, submitted. **JP2009173521-A;** **JP 5403502-B2; Appl. No: 2008-271929; 22 October, 2008 (Granted).**
26. **A. Vinu,** P. Srinivasu, V.V. Balasubramanian, K. Ariga, T. Mori, Mesoporous Carbon (CNP-2) and Method for Producing the Same, **JP2009173522-A;** Submitted. **2007-334247 (Granted)**
27. **A. Vinu,** S. Anandan, T. Mori, K. Ariga, P. Srinivasu, Mesoporous carbon nitride material used for catalyst, lubricant and fuel cell, comprises dimensional cage-type cube mesoporous structure having specific space group, **WO2008126799-A1 ; JP2009509329-X ; JP5521191-B2;** Application　No.:**2007-99061**, Application date: April 5, 2007, Our Ref.:06-MS-162 **(Granted).**
28. **A. Vinu,** S. Anandan, P. Srinivasu, N. Gokulakrishnan, T. Mori, K. Ariga,Synthesis of Nitrogen-Doped Mesoporous Carbon using Templating Technique,Submitted. **JP 5294234; 2007-125128; 10 May, 2007 (Granted).**
29. **A. Vinu,** K. Ariga, M. Miyahara, T. Mori, Porous carbon body and adsorbent using the same, **WO2006080536-A1 ; JP2006206397-A ; US2008213557-A1 ; JP4724877-B2 ; US2012178618-A1 ; US8361203-B2; 29 January, 2013 (Granted).**
30. **A. Vinu,** K. Ariga, M. Terrones, D. Golberg, T. Mori, Porous Boron Nitride and Boron Carbon Nitride Material and Method for Preparation Thereof, **JP4803422; 2007-31170; Application No. 2005-212474, 22 July, 2005 (Granted)**.
31. T. Mori, M. Takahashi, **A. Vinu,** C. Nishimura, Pt/CeO2/Conductive Carbon Nano-hetero Anode and its Preparation Method, Japanese patent, **WO2006006739-A1 ; US2008073619-A1 ; JP2006529286-X ; US7563394-B2 ; JP5164089-B2; 7th July, 2004; PCT/JP2005/013433 (Granted).**
32. **A. Vinu,** K. Ariga, D. Golberg, T. Mori, Y. Bando, T. Nakanishi, Preparation and Characterization of Mesoporous Hexagonal Carbon Nitride,Japanese patent, **WO2006046756-A1; JP2006124250-A; JP4941953-B2 29 October, 2004. Appl. No. 2004-316596 (Granted).**