**List of Patents Granted**

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| **S.No** | **Patent Title** | **Name of Applicant(s)** | **Patent No.** | **Award Date** | **Agency/Country** | **Status** |
| **1** | Copper loaded mesoporous ZrO2-MCM-41 photocatalyst and a process for the preparation thereof for Cr (VI) reduction. | Kulamani Parida, Binita Nanda, Amaresh Chandra Pradhan | 309432 | 19.03.2019 | India | Granted Application No. 1326/KOL/2015 |
| **2** | Exfoliated MgCr-LDH nano sheet; A multifunctional photocatalyst for visible light driven oxidation reactions and a process for the preparation thereof. | Kulamani Parida,SusangineeNayak | 322331 | 04.10.2019 | India | Granted Application No. 1327/KOL/2015 |
| **3** | BiOI microplates modified Zn/Cr layered double hydroxide for enhanced H2 production under visible light irradiation. | Kulamani Parida,DebasmitaKandi,Satyabadi Martha | 324503 | 05.11.2019 | India | Granted Application No. 1299/KOL/2015 |
| **4** | Gold loaded graphene oxide modified Zn-Cr layered Double Hydroxide photocatalyst and a process for the preparation thereof. | Kulamani Parida,SriramMansingh,Satyabadi Martha,Prakash Chandra Sahoo,Rashmi Acharya | 325210 | 18.11.2019 | India | Granted Application No. 785/KOL/2015 |
| **5** | Ag3PO4/NiFe-LDH/RGO composite materials; A robust adsorbent for excellent adsorption capability and a process for the preparation thereof. | Kulamani Parida,SusangineeNayak | 326248 | 28.11.2019 | India | Granted Application No. 201631011440 |
| **6** | Copper incorporated graphitic carbon nitride modified MCM-41 preparation thereof for photo catalytic application. | Kulamani Parida,DiptiPravaSahoo,DharitriRath,SulagnaPatnaik | 326938 | 06.12.2019 | India | Granted Application No. 1300/KOL/2015 |
| **7** | Reduced graphene oxide modified sphere like lanthanum ferrate photocatalysts for hexavalent chromium reduction and a process for the preparation. | Kulamani Parida,SaumyapravaAcharya,DipakkumarPadhi | 331818 | 12.02.2020 | India | Granted Application No. 201631029480 |
| **8** | Fabrication of ZnFe2O4 @Al2O3-MCM-41; A suitable photocatalyst and a process for the preparation thereof. | Kulamani Parida,Kundan Dash,Binita Nanda | 342336 | 23.07.2020 | India | Granted Application No. 201731029518 |
| **9** | Exfoliating layered materials : A bithermal aqueous method for delamination of layered compounds. | Kulamani Parida,S.P.Pattnaik,A.Behera,Satyabadi Martha,RashmiAcharya | 342544 | 27.07.2020 | India | Granted Application No. 201831029676A |
| **10** | α-Fe2O3 /ZnCr-LDH composite: A proactive photocatalysts for visible light driven photocatalytic degradation of textile dyes, phenol and process for the preparation thereof. | Kulamani Parida,Susanginee Nayak | 343165 | 03.08.2020 | India | Granted Application No. 201631011439 |
| **11** | Activated red mud/mesoporous MCM-41 composite: A suitable photocatalyst and a process for the preparation thereof for Cr (VI) reduction. | Kulamani Parida,Binita Nanda,Dharitri Rath | 355077 | 31.12.2020 | India | Granted Application No. 201731001635 |
| **12** | Boron nitride nano sheets (BNNS) from hexagonal boron nitride by aqueous bi-thermal exfoliation protocol. | Kulamani Parida,Sambhu Prasad Patanaik,Pradeepta Babu,Lopamudra Acharya,Rashmi Acharya | 357087 | 29.01.2021 | India | Granted Application No. 201931049465 |
| **13** | Cadmium Sulphide modified floral like lanthanum ferrate photocatalyst and a process for the preparation thereof. | Kulamani Parida,SaumyapravaAcharya,Debasmita Kandi | 362781 | 23/03/2021 | India | Application No. 1301/KOL/2015Filing Dt. 16.12.2015 |
| **14** | BiVO4/MCM-41 nanocomposite photocatalysts for enhanced visible light activity and a process for the preparation thereof. | Kulamani Parida,Brundaban Nayak,Binita Nanda | 362251 | 26/03/2021 | India | Application No. 1325/KOL/2015Filing Dt. 23.12.2015 |
| **15** | NiCo-LDH derived nicopse/nf porous Nano flower heterostructures catalyst composition and method for synthesis thereof | Kulamani Parida, Dipti Prava Sahoo, Kundan kumar Das | 443366 | 07/08/2023 | India | Granted Application No: 202231029869 |
| **16** | Ti3C2/TiO2 nanocomposite and method for preparation thereof | Kulamani Parida, Lijarani Biswal, Bhagyashree Priyadarshini Mishra, Sarmistha Das and Susanginee Nayak | 440715 | 26/07/2023 |  India | Granted Application No: 202231044284 |
| **17** | NixPy on MOF derived C/N CO-dopped ZnO photo catalyst composite and method for synthesis thereof | Kulamani Parida, Asheli Ray, Satyabrata Subudhi and Suraj Prakash Tripathy | 439831 | 21/07/2023 |  India | Granted Application No: 202231044282 |
| **18** | N-RGO/COTIO3 HYBRID PHOTOCATALYST COMPOSITE AND METHOD FOR PREPARATION THEREOF | Kulamani Parida, Lekha Paramanik | 530426 |  | India | GrantedApplication Number- 202231013238 |
|  **List of Patents Filled** |
| **Sl.No** | **Patent Title** | **Name of Applicant(s)** | **Application No.** | **Agency/Country** | **Status** |
| **1** | Fabrication of B and S co-doped graphitic carbon nitride: A suitable photocatalyst and a process for the preparation thereof for hydrogen generation. | Kulamani Parida,Pradeepta Babu,Brundabana Naik | 201831035843 Filing Dt. 24/09/2018 | India | Filled |
| **3** | NiCoLDH derived NiCoPSe/NF porous nanoflower heterostructure catalyst composition and method for synthesis thereof | Kulamani ParidaDipti Prava SahooKundan Kumar Das | 202231029869 | India | Filled |
| **4** | Anchoring NixPy on MOF derived C/N co-doped ZnO through facile in-situ coupling: an efficacious photocatalyst for H2O2 production thereof | Kulamani ParidaAsheli RaySatyabrata SubudhiSuraj Prakash Tripathy | TEMP/E-1/33704/2022-KOL | India | Granted |
| **5** | Ti3C2/TiO2 nanocomposite and method forpreparation thereof  | Kulamani Parida, Lijarani Biswal, Bhagyashree Priyadarshini Mishra,Sarmistha Das, Susanginee Nayak | TEMP/E-1/50461/2022-KOL | India  | Filled |
| **6** | Au Promoted UiO-66-NH2 Photocatalyst and Method For Synthesis Thereof  | Kulamani Parida, Satyabrata Subudhi, Suraj Prakash Tripathy, Asheli Ray, Pragyandeepti Behera | IN202231077593 | India  | Filled |