# Yaan Cao

List of Publications by Year
in descending order



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|---|---|---|---|
| 54 papers | 2,351 citations | 218677 26 h-index | 206112 48 g-index |
| 58 all docs | 58 docs citations | 58 times ranked | 3024 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Improved photocatalytic activity of Sn4+ doped TiO2 nanoparticulate films prepared by plasma-enhanced chemical vapor deposition. New Journal of Chemistry, 2004, 28, 218. | 2.8 | 212 |
| 2 | Great Enhancement of Photocatalytic Activity of Nitrogen-Doped Titania by Coupling with Tungsten Oxide. Journal of Physical Chemistry B, 2006, 110, 14391-14397. | 2.6 | 194 |
| 3 | Unique Surface Chemical Species on Indium Doped TiO<sub>2</sub> and Their Effect on the Visible Light Photocatalytic Activity. Journal of Physical Chemistry C, 2009, 113, 20912-20917. | 3.1 | 187 |
| 4 | Fabrication of Rutile TiO<sub>2</sub>â˜Sn/Anatase TiO<sub>2</sub>â˜N Heterostructure and Its Application in Visible-Light Photocatalysis. Journal of Physical Chemistry C, 2010, 114, 3627-3633. | 3.1 | 145 |
| 5 | Structure and Phase Transition Behavior of Sn<sup>4+</sup>-Doped TiO<sub>2</sub> Nanoparticles. Journal of Physical Chemistry C, 2009, 113, 18121-18124. | 3.1 | 110 |
| 6 | Improved visible light photocatalytic activity of titania doped with tin and nitrogen. Journal of Materials Chemistry, 2011, 21, 144-150. | 6.7 | 106 |
| 7 | Doping Behavior of Zr<sup>4+</sup> Ions in Zr<sup>4+</sup>-Doped TiO<sub>2</sub> Nanoparticles. Journal of Physical Chemistry C, 2013, 117, 27120-27126. | 3.1 | 106 |
| 8 | The Design of TiO<sub>2</sub> Nanostructures (Nanoparticle, Nanotube, and Nanosheet) and Their Photocatalytic Activity. Journal of Physical Chemistry C, 2014, 118, 12727-12733. | 3.1 | 91 |
| 9 | Structure of Nitrogen and Zirconium Co-Doped Titania with Enhanced Visible-Light Photocatalytic Activity. ACS Applied Materials & Interfaces, 2014, 6, 4622-4629. | 8.0 | 78 |
| 10 | Synthesis of Indium Borate and Its Application in Photodegradation of 4-Chlorophenol. Environmental Science & Technology, 2012, 46, 2330-2336. | 10.0 | 69 |
| 11 | An enhanced visible-light photocatalytic activity of TiO2 by nitrogen and nickelâ€“chlorine modification. Separation and Purification Technology, 2013, 104, 256-262. | 7.9 | 55 |
| 12 | Adjustment and Matching of Energy Band of TiO<sub>2</sub>-Based Photocatalysts by Metal Ions (Pd,) Tj ETQq0 0 0 rgBT /Overlock 10 C, 2017, 121, 1089-1098. | 3.1 | 54 |
| 13 | Doping mode, band structure and photocatalytic mechanism of Bâ€“N-codoped TiO2. Applied Surface Science, 2011, 257, 7335-7342. | 6.1 | 53 |
| 14 | TiO<sub>2</sub>/vanadate (Sr<sub>10</sub>V<sub>6</sub>O<sub>25</sub>,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 232 Td (Ni<sub heterostructured photocatalysts with enhanced photocatalytic activity for photoreduction of CO<sub>2</sub> into CH<sub>4</sub>. Nanoscale, 2016, 8, 949-958. | 5.6 | 52 |
| 15 | Doping mechanism of Zn<sup>2+</sup>ions in Zn-doped TiO<sub>2</sub>prepared by a solâ€“gel method. CrystEngComm, 2015, 17, 5074-5080. | 2.6 | 50 |
| 16 | Synthesis of porous ZnMn2O4 flower-like microspheres by using MOF as precursors and its application on photoreduction of CO2 into CO. Applied Surface Science, 2019, 465, 383-388. | 6.1 | 47 |
| 17 | Improved visible-light photocatalytic activity of titania activated by nitrogen and indium modification. Journal of Materials Chemistry, 2012, 22, 14443. | 6.7 | 44 |
| 18 | Fabrication of N-TiO<sub>2</sub>/InBO<sub>3</sub> Heterostructures with Enhanced Visible Photocatalytic Performance. Journal of Physical Chemistry C, 2014, 118, 13545-13551. | 3.1 | 38 |

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|---|---|---|---|
| 19 | Enhanced photocatalytic activity of TiO<sub>2</sub>â€“Cu/C with regulation and matching of energy levels by carbon and copper for photoreduction of CO<sub>2</sub> into CH<sub>4</sub>. CrystEngComm, 2016, 18, 2956-2964. | 2.6 | 37 |
| 20 | Efficient visible-light photocatalytic degradation system assisted by conventional Pd catalysis. Scientific Reports, 2015, 5, 9561. | 3.3 | 32 |
| 21 | The existing states of doped B 3+ ions on the B doped TiO 2. Applied Surface Science, 2015, 345, 67-71. | 6.1 | 32 |
| 22 | The band structure and photocatalytic mechanism of MoS2-modified C3N4 photocatalysts with improved visible photocatalytic activity. Materials Research Bulletin, 2018, 102, 433-439. | 5.2 | 31 |
| 23 | Doping and transformation mechanisms of Fe<sup>3+</sup>ions in Fe-doped TiO<sub>2</sub>. CrystEngComm, 2017, 19, 1100-1105. | 2.6 | 30 |
| 24 | Improved photocatalytic activity of LaFeO3 with doping Mn3+ ions and modifying Pd2+ ions for photoreduction of CO2 into CH4. Journal of Power Sources, 2022, 519, 230738. | 7.8 | 30 |
| 25 | The band structure and photocatalytic mechanism for a CeO<sub>2</sub>-modified C<sub>3</sub>N<sub>4</sub> photocatalyst. New Journal of Chemistry, 2017, 41, 9724-9730. | 2.8 | 29 |
| 26 | Adjustment and Control of Energy Levels for TiO<sub>2</sub>â€“N/ZrO<sub>2â€“x</sub>N<sub>x</sub> with Enhanced Visible Light Photocatalytic Activity. Journal of Physical Chemistry C, 2014, 118, 20982-20988. | 3.1 | 28 |
| 27 | Enhanced photocatalytic activity of TiO<sub>2</sub> activated by doping Zr and modifying Pd. RSC Advances, 2016, 6, 29950-29957. | 3.6 | 26 |
| 28 | Investigation on a novel ZnO/TiO2â€“B photocatalyst with enhanced visible photocatalytic activity. Physica E: Low-Dimensional Systems and Nanostructures, 2014, 58, 118-123. | 2.7 | 25 |
| 29 | Matching and adjusting energy band structures of Pd-modified sulphides (ZnS,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 347 Td (photoreduction. Nanoscale, 2020, 12, 18180-18192. | 5.6 | 25 |
| 30 | Synthesis of TiO2-N/SnO2 heterostructure photocatalyst and its photocatalytic mechanism. Journal of Colloid and Interface Science, 2017, 486, 176-183. | 9.4 | 24 |
| 31 | Enhanced photocatalytic activity of titania with unique surface indium and boron species. Applied Surface Science, 2013, 273, 638-644. | 6.1 | 23 |
| 32 | Effect of plasma treatment on surface properties of TiO2 nanoparticulate films. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 262, 181-186. | 4.7 | 22 |
| 33 | New Type Photocatalyst PbBiO<sub>2</sub>Cl: Materials Design and Experimental Validation. Journal of Physical Chemistry C, 2015, 119, 28190-28193. | 3.1 | 22 |
| 34 | TiO<sub>2</sub>â€“Pd/C composited photocatalyst with improved photocatalytic activity for photoreduction of CO<sub>2</sub> into CH<sub>4</sub>. New Journal of Chemistry, 2017, 41, 3204-3210. | 2.8 | 21 |
| 35 | Z-scheme interface modification by MnV2O6 for V2O5/g-C3N4 heterostructure towards efficient visible photocatalytic activity. Journal of Alloys and Compounds, 2021, 882, 160751. | 5.5 | 21 |
| 36 | Modification of Pd and Mn on the Surface of TiO2 with Enhanced Photocatalytic Activity for Photoreduction of CO2 into CH4. Journal of Physical Chemistry C, 2017, 121, 270-277. | 3.1 | 19 |

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|---|---|---|---|
| 37 | Improved photocatalytic activity of self-assemble TiO 2 nanobelts with Au nanoparticles. Applied Surface Science, 2014, 315, 247-251. | 6.1 | 18 |
| 38 | Study of PdO species on surface of TiO2 for photoreduction of CO2 into CH4. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 384, 112032. | 3.9 | 18 |
| 39 | A new Ni/Ni3(BO3)2/NiO heterostructured photocatalyst with efficient reduction of CO2 into CH4. Separation and Purification Technology, 2015, 142, 14-17. | 7.9 | 16 |
| 40 | Synergistic effects of Zn and Pd species in TiO2 towards efficient photo-reduction of CO2 into CH4. New Journal of Chemistry, 2018, 42, 483-488. | 2.8 | 16 |
| 41 | Hexagonal Zn2SnO4 nanoplates self-doped with Sn4+ ions towards efficient photoreduction of CO2 into CH4. Materials Science in Semiconductor Processing, 2021, 130, 105818. | 4.0 | 16 |
| 42 | Generation and evolution of plasma during femtosecond laser ablation of silicon in different ambient gases. Laser and Particle Beams, 2013, 31, 539-545. | 1.0 | 13 |
| 43 | Synthesis of palladium-modified MnS photocatalysts with enhanced photocatalytic activity in the photoreduction of CO2 to CH4. Applied Surface Science, 2021, 541, 148519. | 6.1 | 12 |
| 44 | Synergetic effect of N3â^', In3+ and Sn4+ ions in TiO2 towards efficient visible photocatalysis. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 356, 132-137. | 3.9 | 10 |
| 45 | Thermal catalytic mechanism for the metal ions(Cu, in, Pd and Pt) modified TiO2 on degradation of HCHO. Materials Science in Semiconductor Processing, 2021, 123, 105547. | 4.0 | 10 |
| 46 | Improved photocatalytic activity of ZnO via the modification of In2O3 and MoS2 surface species for the photoreduction of CO2. Applied Surface Science, 2021, 566, 150649. | 6.1 | 10 |
| 47 | Regulating the band structure by modifying Ti3C2 and doping Fe ions improved photocatalytic activity and selectivity of ZnGa2O4â€“Ti3C2â€“Fe for photoreducted CO2 into CH4. Journal of Power Sources, 2022, 535, 231421. | 7.8 | 10 |
| 48 | Stannous oxide promoted charge separation in rationally designed heterojunction photocatalysts with a controllable mechanism. Dalton Transactions, 2018, 47, 12734-12741. | 3.3 | 9 |
| 49 | Improved photocatalytic activity of TiO2 modified with unique Oâ€“Znâ€“Cl surface species. Separation and Purification Technology, 2016, 171, 118-122. | 7.9 | 7 |
| 50 | Doping Mechanism of Ge<sup>4+</sup> Ions in Ge<sup>4+</sup>â€Doped TiO<sub>2</sub>. Physica Status Solidi (B): Basic Research, 2018, 255, 1700289. | 1.5 | 4 |
| 51 | Synthesis of zinc based hierarchical microspheres photocatalyst and their enhanced photocatalytic activity. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 106, 57-61. | 2.7 | 4 |
| 52 | Improved Visible Photocatalytic Activity on Titania Modified with â^'Oâ€“Pdâ€“Cl Species Assisted by Oxidative Addition Reaction of Pd<sup>0</sup>. Journal of Physical Chemistry C, 2017, 121, 375-380. | 3.1 | 3 |
| 53 | Animal heat activated cancer therapy by a traditional catalyst TiO2-Pd/graphene composites. Scientific Reports, 2020, 10, 15823. | 3.3 | 2 |
| 54 | The influence of pH values on the existing states of In and B ions in TiO2. Applied Surface Science, 2016, 365, 263-267. | 6.1 | 1 |