Bharathiar University

State University I "A++" Grade by NAAC I 46th Rank in MoE-NIRF
Maruthamalai Road, Coimbatore, Tamil Nadu - 641 046.

Dr R T RAJENDRA KUMAR

Professor and Head
Department of Nanoscience and Technology

Bharathiar University

Tamil Nadu

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Research Area

- 2-D Nanomaterials
- Gas sensor
- Biosensor
- Energy Storage Devices

Courses Teaching

- Computational Methods
- Characterization of Nanomaterials
- Nanosensors and IoT based sensors

Research Experience: 25

Teaching Experience: 16

Research Credentials (as on August 2025 – Source: Google scholar)

H-index: 46 Citations: 6022 i10-index: 109

Patents : Granted: 1

Publications

Books/Chapters: 7 International Journals: 148 Conferences: 1

Career

At Bharathiar University

1. Designation : Professor
Period : February 2015 - June 2036

2. Designation : Associate Professor
Period : February 2012 - January 2015

3. Designation : Reader
Period : February 2009 - February 2012

Other Institutes

1. Designation : Post Doctoral Fellow
Institution Name : School of Physical Sciences, Dublin City University, Dublin, Ireland
Period : May 2005 - December 2006

2. Designation : Post Doctoral Fellow
Institution Name : Department of Micro and Nanotechnology, Technical University of Denmark
Period : January 2007 - July 2008

3. Designation : Post Doctoral Fellow
Institution Name : Atomic Physics Division, Stockholm University, Sweden
Period : April 2003 - March 2005

Education

Ph. D.
Subject : Physics
Institution : Bharathiar University
Affiliated University : Bharathiar University
Year of Award : April 2003

Dr R T RAJENDRA KUMAR , Professor and Head , Department of Nanoscience and Technology

M. Sc.
Subject : Physics
Institution : P.S.G.College of Arts and Science
Affiliated University : Bharathiar University
Year of Award : May 1998

B. Sc.
Subject : Physics
Institution : Chikkaiah Naicker College, Erode
Affiliated University : Bharathiar University
Year of Award : May 1996

Projects
Consultancy Level
Ongoing - 1 completed -
National Level
Ongoing - completed - 10

Research Guidance
Completed
Ph.D. - 13
On Going
Ph.D. - 5

Programs organized

1. "Two day workshop on Field emission Scanning Microscopy (FESEM)" Department of Nanoscience & Technology, Bharathiar University in support with DST-PURSE (2021-03-23 - 2021-03-22)
2. "Webinar on Advances in biomedical technology" Department of Nanoscience & Technology, Bharathiar University (2020-11-02 - 2020-11-03)
3. National Workshop on Emerging Sensor Technologies" Department of Nanoscience & Technology, Bharathiar University, in support with DRDO. (2019-01-07 - 2019-01-08)
4. "Workshop on Training in materials studio", Department of Nanoscience & Technology, Bharathiar University, in support with BIOVIA. (2016-03-31 - 2016-04-01)

Collaborations

1. Dr. P. Saravanan (2022-12-02 - 2025-09-15)
2. Dr. K. Asokan (2018-03-02 -)
3. Dr. Ramanathaswamy Pandian (2022-06-18 - 2025-09-15)

Visits

1. Technion- Israel Institute of Technology, Israel (2016-11-17 -)
2. Zhejiang University , China (2017-10-11 -)
3. Ming Chi University of Technology, Taiwan (2024-01-10 -)

Publications

International Journals - 148

148. Ni-doped (MoO3/MoS2) Heterostructure Chemiresistive Sensor for dual selective detection of NH3 and NOx at Room Temperature

Ceramics International (January 2025)
K Muthumalai, Mathankumar M, K Govindharaj, Poovarasan S, Yuvaraj H, Zden?k S, RT Rajendra Kumar

147. Rational design of amine-terminated terephthalate in bismuth metal-organic framework for boosting sunlight-catalytic removal of organic pollutants

Journal of the Taiwan Institute of Chemical Engineers,165, 105725 (December 2024)
D Pattappan, CJ Liao, RS Kumar, S Ramesh, RT Rajendra Kumar, W Yang

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146. Gold nanoparticles anchored amine-functionalized nickel metal organic framework composite for efficient solar light-assisted degradation of rose bengal dye and Cr (VI) reduction

Journal of Materials Science: Materials in Electronics, 35(34), 2157 (November 2024)
KV Kavya, Dhanaprabhu Pattappan, Raju Suresh Kumar, Sivalingam Ramesh, Kavitha Thangavelu, RT Rajendra Kumar, Yuvaraj Haldorai

145. Electrochemical impedimetric enzyme-less detection of non-electroactive organophosphate pesticides using zirconium metal organic framework

Microchemical Journal, 111136 (September 2024)
N Gokila, V Aurthi, SR Prabagaran, Y Haldorai, RT Rajendra Kumar

144. Chemical vapor deposition-grown single-layer graphene-supported nanostructured Co3O4 composite as binder-free electrode for asymmetric supercapacitor and electrochemical detection of caffeic acid

Journal of Alloys and Compounds, 995, 174738 (August 2024)
Y Haldorai, RS Kumar, S Ramesh, RT Rajendra Kumar

143. Sol-gel synthesized CuO nanoparticles supported on reduced graphene oxide nanocomposite for sunlight-catalytic methylene blue degradation and nanofluid applications

Journal of Sol-Gel Science and Technology, 1-14 (July 2024)
Y Haldorai, RS Kumar, S Ramesh, RT Rajendra Kumar, W Yang

142. Green sonochemical synthesis of ZnCo2O4 decorated with carbon nanofibers for enhanced electrochemical detection of bisphenol A in food products

Microchimica Acta 191 (8), 460 (July 2024)
K Govindharaj, Mani Govindasamy, N Gokila, Chi-Hsien Huang, Umamaheswari Rajaji, Munirah D Albaqami, RT Rajendra Kumar

141. Humidity-enhanced ammonia gas sensing by Ga2O3/MWCNT nanocomposite at room temperature

Materials Science in Semiconductor Processing, 175, 108255 (June 2024)
Madhura N Talwar, Akshatha Gangadhar, Mathankumar Manoharan, R Manimozhi, S Srikantaswamy, RT Rajendra Kumar, AP Gnana Prakash

140. Non-enzymatic electrochemical impedance sensor for selective detection of electro-inactive organophosphate pesticides using Zr-MOF/ZrO2/MWCNT ternary composite

Environmental Research 251, 118648 (June 2024)
N Gokila, Y Haldorai, P Saravanan, RT Rajendra Kumar

139. Development of Dual-Selective Chemiresistive Sensor for NH3 and NOx at Room Temperature Using MoS2/MoO2 Heterostructures

ACS Applied Nano Materials (June 2024)
K Muthumalai, M Manoharan, K Govindharaj, P Saravanan, Y Haldorai, RT Rajendra Kumar

138. Fabrication of 1D/2D Au nanofiber/MIL-101(Cr)–NH2 composite for selective electrochemical detection of caffeic acid: Predicting sensor performance by machine learning and investigating the porosity using AI and computer vision-based image analysis

Microchemical Journal, 200, 110490 (May 2024)
KV Kavya, Raju Suresh Kumar, RT Rajendra Kumar, Sivalingam Ramesh, Woochul Yang, Vijay Kakani, Yuvaraj Haldorai

137. Highly sensitive prismatic h-MoO3 sheets for temperature-dependent chemiresistive ammonia sensor

Journal of Materials Science: Materials in Electronics, 35 (10), 721 (April 2024)
K Muthumalai, Nandhini P, Mathankumar M, K Govindharaj, Poovarasan S, Senthilkumar L, Yuvaraj H, R T Rajendra Kumar

136. 1D ?-NiMoO4 nanorods/reduced graphene oxide nanocomposite based efficient electrocatalyst for oxygen evolution reaction and p-nitrophenol sensing

Diamond and Related Materials, 143, 110870 (February 2024)
Dinesh M, N. Gokila, Stella V, H Yuvaraj, RT Rajendra Kumar

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135. Interconnected SnO2 nanoflakes decorated WO3 composites as wearable and ultrafast sensors for real-time wireless sleep quality tracking and breath disorder detection

Chemical Engineering Journal, 482, 148759 (February 2024)
K Govindharaj, Mathankumar M, K. Muthumalai , S Poovarasan, Sarathi T, H Yuvaraj, RT Rajendra Kumar

134. Humidity-activated ultra-selective room temperature gas sensor based on W doped MoS2/RGO composites for trace-level ammonia detection

Analytica Chimica Acta, 1287,342075 (January 2024)
SP Linto Sibi, M Rajkumar, Mathankumar Manoharan, J Mobika, V Nithya Priya, RT Rajendra Kumar

133. Ultrafast, Flexible, and Selective Water Sensor Based on Multiwalled Carbon Nanotubes/Poly(vinylidene fluoride) Screen-Printed on Cotton Fabric

ACS Applied Engneering Materials (January 2024)
Debasis Maity, RT Rajendra Kumar

132. Sulfur vacancies promoted highly efficient visible light photocatalytic degradation of antibiotic and phenolic pollutants over WS2/rGO heterostructure

Separation and Purification Technology, 329, 125172 (January 2024)
Dharman Ranjith Kumar, Kugalur Shanmugam Ranjith, Mathankumar M, Yuvaraj Haldorai, Young-Kyu Han, Tae Hwan Oh, RT Rajendra Kumar

131. Advancements in wearable ammonia sensors using polypyrrole/MWCNT coated yarn

Smart Materials and Structure, 33, 015011 (December 2023)
, Debasis Maity, RT Rajendra Kumar

130. Polyaniline-wrapped metal oxide nanostructures/organic framework-derived heteroatom-doped carbon ternary composites for asymmetric supercapacitors: Constructing a 4.4 V cell

Journal of Energy Storage, 71, 108145 (November 2023)
Stella Vargheese, Ganesh Dhakal, Raju Suresh Kumar, RT Rajendra Kumar, Jae-Jin Shim, Yuvaraj Haldorai

129. Binary metal oxide (MnO2/SnO2) nanostructures supported triazine framework-derived nitrogen-doped carbon composite for symmetric supercapacitor

Journal of Energy Storage, 68, 107671 (September 2023)
Stella Vargheese, Raju Suresh Kumar, RT Rajendra Kumar, Jae-Jin Shim, Yuvaraj Haldorai

128. Humidity-independent highly sensitive propanol detection based on tin oxide-decorated mixed-phase tungsten oxide

Journal of Materials Science: Materials in Electronics, 34,25, 1782 (September 2023)
K Govindharaj, M Manoharan, K Muthumalai, S Poovarasan, Yuvaraj Haldorai, RT Rajendra Kumar

127. Interface Oxygen Vacancy?Enhanced Co3O4/WO3 Nanorod Heterojunction for Sub?ppm Level Detection of NOx

Advanced Engineering Materials, 25, 20, 2300727 (August 2023)
Mathankumar Manoharan, Kamaraj Govindharaj, Karuppasamy Muthumalai, Sabarish Kumaravel, Yuvaraj Haldorai, RT Rajendra Kumar

126. Reduced graphene oxide supported monoclinic bismuth vanadate nanoparticles as an electrocatalyst for selective determination of dopamine in human urine samples

Materials Chemistry and Physics, 127437 (March 2023)
Dinesh Muthu, R Govindaraj, M Manikandan, P Ramasamy, Yuvaraj Haldorai, RT Rajendra Kumar

125. Highly selective NOx chemiresistive sensor based on n-type tungsten oxide nanorods

Bulletin of Materials Science, 46, 4, 225 (March 2023)
Mathankumar Manoharan, Kamaraj Govindharaj, K Muthumalai, Sabarish Kumaravel, P Saravanan, Yuvaraj Haldorai, RT Rajendra Kumar

124. Detection of nonpolar n-dodecane at room temperature using multiphase MoS2 chemiresistive sensor: Investigation of charge transfer on nonpolar VOC molecule

Sensors and Actuators B: Chemicals, 376, 132994 (February 2023)
K Muthumalai, Nandhini Panjulingam, Mathankumar Manoharan, Yuvaraj Haldorai, Senthilkumar Lakshmipathi, RT Rajendra Kumar

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123. Highly Selective Room Temperature Detection of NH3 and NOx Using Oxygen-Deficient W18O49-Supported WS2 Heterojunctions

ACS Applied Materials & Interfaces, 15, 4703-4712 (January 2023)
Mathankumar Manoharan, Kamaraj Govindharaj, K Muthumalai, Ramanathaswamy Pandian, Yuvaraj Haldorai, RT Rajendra Kumar

122. Screen-printed electrode modified by Au/NH2-MIL-125 (Ti) composite for electrochemical sensing performance of gallic acid in green tea and urine samples

Chemical Physics Letters, 807, 140074 (November 2022)
KV Kavya, Stella Vargheese, Dhanaprabhu Pattappan, RT Rajendra Kumar, Yuvaraj Haldorai

121. Chemically Exfoliated Titanium Carbide MXene for Highly Sensitive Electrochemical Sensors for Detection of 4-Nitrophenols in Drinking Water

ACS omega, 7, 46, 42644-42654 (November 2022)
Rajavel Krishnamoorthy, Karuppasamy Muthumalai, Thiba Nagaraja, RT Rajendra Kumar

120. Modified solution combustion-grown Zn-doped Ni–Mg ferrite nanostructures for room temperature NH3 sensing

Journal of Materials Science: Materials in Electronics, 33,34, 25645-25660 (October 2022)
Mubashir Qayoom, Sheikh Irfan, Gazala Farooq Malik, Khurshed Ahmad Shah, Muzaffar Qadir Lone, RT Rajendra Kumar, Ghulam Nabi Dar

119. A cationic amino acid polymer nanocarrier synthesized in supercritical CO2 for co-delivery of drug and gene to cervical cancer cells

Colloids and Surfaces B: Biointerfaces, 112584 (August 2022)
KV Kavya, Stella Vargheese, Shruti Shukla, Imran Khan, Debasish Kumar Dey, Vivek K Bajpai, Kavitha Thangavelu, Raju Vivek, RT Rajendra Kumar, Young-Kyu Han, Yun Suk Huh, Yuvaraj Haldorai

118. Green Chemistry Based Gold Nanoparticles Synthesis Using the Marine Bacterium PBCW2 and Their Multitudinous Activities

Nanomaterials, 12(17),2940 (July 2022)
Tijo Cherian, Debasis Maity, RT Rajendra Kumar, Govindasamy Balasubramani, Chinnasamy Ragavendran, Suneelkumar Yalla, Raju Mohanraju, Willie JGM Peijnenburg

117. Enhanced visible-light degradation of organic dyes via porous g-C3N4

Phosphorus, Sulfur, and Silicon and the Related Elements, 197,3, 200-208 (July 2022)
Sabarish Kumaravel, Mathankumar Manoharan, Yuvaraj Haldorai, RT Rajendra Kumar

116. Glassy carbon electrode modified by gold nanofibers decorated iron metal–organic framework nanocomposite for voltammetric determination of acetaminophen

Carbon Letters, 32, 6, 1441-1449 (July 2022)
KV Kavya, Dinesh Muthu, Stella Varghese, Dhanaprabhu Pattappan, RT Rajendra Kumar, Yuvaraj Haldorai

115. Implementing ZnO Nanomaterials in P3HT: PCBM Based Hybrid Solar Cell

Advanced Polymeric Systems, 45-68 (June 2022)
R Geethu, KS Ranjith, RT Rajendra Kumar, KP Vijayakumar

114. Electrochemical Non-enzymatic sensor based on Co-H2ABDC Metal Organic Framework for detection of glyphosate

Chemical Physics Letters,795, 139481 (May 2022)
N Gokila, K Muthumalai, Yuvaraj Haldorai, RT Rajendra Kumar

113. Enhanced room temperature selective ammonia sensing based on SnO2 decorated MXene

Journal of Materials Nanoscience, 9,1, 68-73 (February 2022)
, Kamaraj Govindharaj, MathanKumar Manoharan, Krishnamoorthy Rajavel, Yuvaraj Haldorai, RT Rajendra Kumar

112. Visible light-assisted degradation of 4-nitrophenol and methylene blue using low energy carbon ion-implanted ZnO nanorod arrays: Effect on mechanistic insights and stability

Chemosphere, 287, 132283 (January 2022)
Dharman Ranjith Kumar, Kugalur Shanmugam Ranjith, Yuvaraj Haldorai, Asokan Kandasami, RT Rajendra Kumar

Dr R T RAJENDRA KUMAR , Professor and Head , Department of Nanoscience and Technology

111. Metal-organic frameworks with different oxidation states of metal nodes and aminoterephthalic acid ligand for degradation of Rhodamine B under solar light

Chemosphere, 286, 131726 (January 2022)
Dhanaprabhu Pattappan, Stella Vargheese, KV Kavya, RT Rajendra Kumar, Yuvaraj Haldorai

110. Graphitic carbon nitride/NH2-MIL-101 (Fe) composite for environmental remediation: Visible-light-assisted photocatalytic degradation of acetaminophen and reduction of hexavalent chromium

Chemosphere, 286, 131875 (January 2022)
Dhanaprabhu Pattappan, KV Kavya, Stella Vargheese, RT Rajendra Kumar, Yuvaraj Haldorai

109. Palladium nanoparticles decorated Ni-MOF nanocomposite as an electrochemical platform for the selective detection of dopamine

Materials Letters, 130926 (January 2022)
KV Kavya, Dinesh Muthu, Dhanaprabhu Pattappan, Stella Vargheese, N Gokila, MS Sivaramkumar, RT Rajendra Kumar, Yuvaraj Haldorai

108. NiMoO4/reduced graphene oxide composite as an electrode material for hybrid supercapacitor

Materials Science in Semiconductor Processing,135, 106078 (November 2021)
Dinesh Muthu, Stella Vargheese, Yuvaraj Haldorai, RT Rajendra Kumar

107. Enhanced electrochemical detection of dopamine by graphene oxide/tungsten trioxide nanocomposite

Materials Science In Semiconductor, 127, 105696 (August 2021)
V. Anbumannan, RT Rajendra Kumar, K Suresh

106. Heteroatom-doped mesoporous carbon prepared from a covalent organic framework/?-MnO2 composite for high-performance supercapacitor

Carbon Letters, 1-8 (July 2021)
Stella Vargheese, Dhanaprabhu Pattappan, KV Kavya, MS Sivaramkumar, RT Rajendra Kumar, Yuvaraj Haldorai

105. MWCNT enabled smart textiles based flexible and wearable sensor for human motion and humidity monitoring

Cellulose, 28, 4, 2505-2520 (March 2021)
D Maity, K Rajavel, RT Rajendra Kumar

104. Titanium-based Metal-Organic Framework/TiO2 composite for degradation of dyes under solar light irradiation

Journal of Electronic Materials, 50, 5, 2565-2575 (February 2021)
D Pattappan, S Varghese, KV Kavya, RT Rajendra Kumar, Y Haldorai

103. Hierarchical flower-like MnO2@ nitrogen-doped porous carbon composite for symmetric supercapacitor: Constructing a 9.0 V symmetric supercapacitor cell

Electrochimica Acta, 364, 20, 137291 (December 2020)
S Vargheese, D Muthu, D Pattappan, KV Kavya, RT Rajendra Kumar, Y Haldorai

102. Mn–Ni binary metal oxide for high-performance supercapacitor and electro-catalyst for oxygen evolution reaction

Ceramics International, 15, 28006-28012 (December 2020)
Muthu Dinesh, Yuvaraj Haldorai, RT Rajendra Kumar

101. Triazine-based 2D covalent organic framework-derived nitrogen-doped porous carbon for supercapacitor electrode

Stella Vargheese, Muthu Dinesh, K. V. Kavya, Dhanaprabhu Pattappan, Ramasamy Thangavelu Rajendra Kumar & Yuvaraj Haldorai (November 2020)
Stella Vargheese, Muthu Dinesh, K. V. Kavya, Dhanaprabhu Pattappan, RT Rajendra Kumar & Yuvaraj Haldorai

100. Plasmonic effect and charge separation-induced photocatalytic degradation of organic dyes utilizing Au/ZnFe2O4@rGO ternary composite

Applied Physics A volume 126, 785 (September 2020)
Dhanaprabhu Pattappan, K. V. Kavya, Stella Varghese, RT Rajendra Kumar & Yuvaraj Haldorai

Dr R T RAJENDRA KUMAR , Professor and Head , Department of Nanoscience and Technology

99. A radially controlled ZnS interlayer on ultra-long ZnO–Gd2S3 core–shell nanorod arrays for promoting the visible photocatalytic degradation of antibiotics

Nanoscale, Royal Society of Chemistry,12,26, 14047-14060 (June 2020)
Kugalur Shanmugam Ranjith, D Ranjith Kumar, Seyed Majid Ghoreishian, Yun Suk Huh, Young-Kyu Han, RT Rajendra Kumar

98. Magnetite?Decorated Reduced Graphene Oxide: A Study of Multifunctional Antibacterial and Removal of Lead Ion Properties for Water Disinfection Applications

Advanced engineering materials, Volume22, Issue11,020 2000395 (June 2020)
Cherukutty Ramakrishnan Minitha, Krishnamoorthy Rajavel, RT Rajendra Kumar

97. Development of the PANI/MWCNT nanocomposite-based fluorescent sensor for selective detection of aqueous Ammonia

ACS Omega , 5, 15, 8414–8422 (April 2020)
D Maity, M Manoharan, RT Rajendra Kumar

96. CdTe nanorods for nonenzymatic hydrogen peroxide biosensor and optical limiting applications

Ionics, (1-8) (April 2020)
M Manikandan, C Revathi, P Senthilkumar, S Amreetha, S Dhanuskodi, RT Rajendra Kumar

95. Solvothermal synthesis of Fe3S4@graphene composite electrode materials for energy storage

Carbon Letters, volume 30, pages 667–673 (April 2020)
Muthumalai Karuppasamy, Dinesh Muthu, Yuvaraj Haldorai & RT Rajendra Kumar

94. Promotional Effect of Cu2S-ZnS Nanograins as a Shell Layer on ZnO Nanorod Arrays for Boosting Visible Light Photocatalytic H2 Evolution

The Journal of Physical Chemistry C, 124, 6, 3610-3620 (January 2020)
Kugalur Shanmugam Ranjith, Dharman Ranjith Kumar, Yun Suk Huh, Young-Kyu Han, Tamer Uyar, RT Rajendra Kumar

93. Glucose oxidase immobilized amine terminated multiwall carbon nanotubes/reduced graphene oxide/polyaniline/gold nanoparticles modified screen-printed carbon electrode for highly sensitive amperometric glucose detection

Materials Science and Engineering: C 105, 110075 (December 2019)
Debasis Maity, CR Minitha, RT Rajendra Kumar

92. Hierarchical ?-MnO2 wrapped MWCNTs sensor for low level detection of p-nitrophenol in water

Ceramics International, 45, 23097-23103 (December 2019)
V Anbumannan, M Dinesh, RT Rajendra Kumar, K Suresh

91. Birnessite MnO2 Decorated MWCNTs Composite as a Nonenzymatic Hydrogen Peroxide Sensor

Chemical Physics Letters, 45, 23097-23103 (September 2019)
Muthu Dinesh, Chinnasamy Revathi, Yuvaraj Haldorai, RT Rajendra Kumar

90. Synthesis of triazine-based porous organic polymer: A new material for double layer capacitor

Material Letters, 249, 53-56 (August 2019)
Stella Vargheese, RT Rajendra Kumar, Yuvaraj Haldorai

89. Swift heavy ion induced effects on structural, optical and photo-catalytic properties of Ag irradiated vertically aligned ZnO nanorod arrays

Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms, 450, 95-99 (July 2019)
D Ranjith Kumar, KS Ranjith, LR Nivedita, K Asokan, RT Rajendra Kumar

88. Tuning the electrical properties of graphene oxide by nitrogen ion implantation: Implication for gas sensing

Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms, 450, 257-261 (July 2019)
CR Minitha, LR Nivedita, K Asokan, RT Rajendra Kumar

Dr R T RAJENDRA KUMAR , Professor and Head , Department of Nanoscience and Technology

87. Nitrogen-Implanted ZnO Nanorod Arrays for Visible Light Photocatalytic Degradation of a Pharmaceutical Drug Acetaminophen

ACS Omega, 4,11973-11979 (July 2019)
Dharman Ranjith Kumar, Kugalur Shanmugam Ranjith, Yuvaraj Haldorai, Asokan Kandasami, RT Rajendra Kumar

86. Highly sensitive amperometric detection of glutamate by glutamic oxidase immobilized Pt Nanoparticle decorated multiwalled carbon nanotubes (MWCNTs)/Polypyrrole composite

Biosensors and Bioelectronics, 130, 307–314 (February 2019)
Debasis Maity, RT Rajendra Kumar

85. Effective shell wall thickness of vertically aligned ZnO-ZnS core-shell nanorod arrays on visible photocatalytic and photo sensing properties

Applied Catalysis B: Environmental, 237, 5, Pages 128-139 (December 2018)
, Kugalur Shanmugam Ranjith, Rutely Burgos Castillo, Mika Sillanpaa, RT Rajendra Kumar

84. Polyaniline Anchored MWCNTs on Fabric for High Performance Wearable Ammonia Sensor

ACS Sensors, 3 (9), 1822–1830 (September 2018)
Debasis Maity and RT Rajendra Kumar

83. Selective Methanol Detection of Pyrolysis Grown Multiwalled Carbon Nanotubes

Advanced Science Letters, 24, 8,5645-5650(6) (August 2018)
Rajavel Krishnamoorthy, RT Rajendra Kumar

82. Polyvinyl alcohol wrapped multiwall carbon nanotube (MWCNTs) network on fabrics for wearable room temperature ethanol sensor

Sensors and Actuators B: Chemical 261, 297-306 (May 2018)
D Maity, K Rajavel, RT Rajendra Kumar

81. Evolution of Visible Photocatalytic Properties of Cu-Doped CeO2 Nanoparticles: Role of Cu2+-Mediated Oxygen Vacancies and the Mixed-Valence States of Ce Ions

ACS Sustainable Chem. Eng. 6, 7, 8536-8546 (May 2018)
Kugalur Shanmugam Ranjith, Chung-Li Dong, Ying-Rui Lu, Yu-Cheng Huang, Chi-Liang Chen, Padmanapan Saravanan, Kandasami Asokan, and RT Rajendra Kumar

80. One-Step Pyrolytic Synthesis of Multiwalled Carbon Nanotubes: The Role of Resupply of Carbon Species on the Quality Control

Journal of Nanoscience and Nanotechnology, 18 (5), 3536-3542, 2018 (May 2018)
K Rajavel, P Saravanan, RT Rajendra Kumar

79. Enhancement of magnetostrictive properties of Galfenol thin films

Journal of Magnetism and Magnetic Materials, 451, 300-304 (April 2018)
LR Nivedita, P Manivel, R Pandian, S Murugesan, NA Morley, K Asokan, RT Rajendra Kumar

78. Impact of oxygen functional groups on reduced graphene oxide-based sensors for ammonia and toluene detection at room temperature

ACS Omega, 3 (4), 4105-4112 (April 2018)
, CR Minitha, VS Anithaa, V Subramaniam, RT Rajendra Kumar

77. Influence of Fe3O4 nanoparticles decoration on dye adsorption and magnetic separation properties of Fe3O4/rGO nanocomposites

Separation Science and Technology 53 (14), 2159-2169 (February 2018)
CR Minitha, M Martina Susan Arachy, RT Rajendra Kumar

76. Influence of Sn ion doping on the photocatalytic performance of V2O5 nanorods prepared by hydrothermal method

Materials Research Express, 5 (2), 025507 (January 2018)
S Rajeshwari, J Santhosh Kumar, R.T. Rajendra Kumar, N Ponpandian, P Thangadurai

Dr R T RAJENDRA KUMAR , Professor and Head , Department of Nanoscience and Technology

75. Magnetite nanoparticles decorated reduced graphene oxide composite as an efficient and recoverable adsorbent for the removal of cesium and strontium ions

Industrial & Engineering Chemistry Research,57, 4, 1225-1232 (January 2018)
Cherukutty Ramakrishnan Minitha, Rahul Suresh, Ujjwal Kumar Maity, Yuvaraj Haldorai, Vijayakumar Subramaniam, Periasamy Manoravi, Mathew Joseph, RT Rajendra Kumar

74. Effect of samarium doping on structural, optical and magnetic properties of vertically aligned ZnO nanorod arrays

Journal of Rare Earths 35 (10), 1002-1007 (October 2017)
DR Kumar, KS Ranjith, LR Nivedita, RT Rajendra Kumar

73. Structural, optical, photocurrent and solar driven photocatalytic properties of vertically aligned samarium doped ZnO nanorod arrays

Optik, 154 ,115–125 (October 2017)
D Ranjith Kumar, KS Ranjith, RT Rajendra Kumar

72. Engineering Silcon to porous silicon nanowires by Metal Assisted Chemical Etching: Role of Ag size and electron scavenging rate on morphology control and mechanism

ACS Omega, 2, 4540?4547 (August 2017)
, K. Rajkumar, R. Pandian, S. Amirthapandian and RT Rajendra Kumar

71. Controlled fabrication and electrowetting properties of silicon nanostructures

Journal of Adhesion Science and Technology 31 (1), 31-40 (June 2017)
K Rajkumar, K Rajavel, DC Cameron, RT Rajendra Kumar

70. Robust water repellent ZnO nanorod array by Swift Heavy Ion Irradiation: Effect of Electronic Excitation Induced Local Chemical State Modification

Scientific reports, 7, 3251 (June 2017)
KS Ranjith, LR Nivedita, K Asokan, …., RT Rajendra Kumar

69. Adsorption behaviour of reduced graphene oxide towards cationic and anionic dyes: Co-action of electrostatic and ? – ? interactions

Materials Chemistry and Physics,194, 243–252 (June 2017)
Minitha C.R., Lalitha M., Jeyachandran Y.L., Senthilkumar L., RT Rajendra Kumar

68. Ultrasonic Assisted Synthesis of Superhydrophobic ZnO Nanowall Films

Bulletin of Materials Science, Ms. No. BOMS-D-16-00952R1. 40,505-511 (May 2017)
S. Sutha, RT Rajendra Kumar

67. Phase evolution and magnetic properties of DC sputtered Fe-Ga (Galfenol) thin films with growth temperatures

Journal of Alloys and Compounds 704, 420-424 (May 2017)
Nivedita L. Raveendran, R Pandian, S Murugesan, K Asokan, RT Rajendra Kumar

66. Multifunctional ZnO Nanorod-Reduced Graphene Oxide Hybrids Nanocomposites for Effective Water Remediation: Effective Sunlight Driven Degradation of Organic Dyes and Rapid Heavy Metal Adsorption

Chemical Engineering Journal, 325, 588-600 (May 2017)
K. S. Ranjith, P. Manivel, RT Rajendra Kumar, Tamer Uyar

65. Electro Catalytic Properties of ?, ?, ?, ??MnO2 and ??MnOOH Nanoparticles: Role of Polymorphs on Enzyme Free H2O2 Sensing

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