Dr H.K.Patil:

List of Published Research Articles in International Peer Reviewed Journals	
1.	"Influence of Oxygen ions Irradiation on Polyaniline/Single Walled Carbon Nanotubes Nanocomposite", **Harshada K. Patil,** Megha A. Deshmukh, Sumedh D. Gaikwad, Gajanan A. Bodkhe, K. Asokan, MikitoYasuzawa, Pankaj Koinkar, and Mahendra D. Shirsat, ***Radiation Physics and Chemistry,130 (2017) 47–51*** *(Thomson Reuters Impact Factor : 1.984)*
2.	"Dimethylglyoxime Modified Swift Heavy Oxygen Ions Irradiated Polyaniline/ Single Walled Carbon Nanotubes Composite Electrode for Detection of Cobalt Ions", **Harshada K. Patil,** Megha A. Deshmukh, Gajanan A. Bodkhe, Sumedh M. Shirsat, K. Asokan, and Mahendra D. Shirsat, ***Published 27 June 2018 © 2018 IOP Publishing Ltd, Materials Research Express, Volume 5, Number 6*** *(Thomson Reuters Impact Factor : 1.449)*
3.	"Reinforcement of Polyaniline and Poly-(o-toluidine) with SWNTs and tuning of their physicochemical properties by heavy ion beams" **Harshada K. Patil,** Megha A. Deshmukh, Gajanan A. Bodkhe, Sumedh M. Shirsat, K. Asokan, and Mahendra D. Shirsat, ***Appl. Phys. A (2018) 124: 491. https://doi.org/10.1007/s00339-018-1901-1*** *(Applied Physics A (Springer) Thomson Reuters Impact Factor : 1.784)*
4.	"Sensitive Detection of Heavy Metal Ions: An Electrochemical Approach", **Harshada K. Patil,** Megha A. Deshmukh, Gajanan A. Bodkhe, Mahendra D.

	Shirsat, ***International Journal of Modern Physics B (World Scientific) , Vol. 32, No. 19 (2018) 1840042*** *(Thomson Reuters Impact Factor: 0.863)*

5.	"Field effect transistor based on proton conductive metal organic framework (CuBTC)", Gajanan A Bodkhe, Megha A Deshmukh, **Harshada K Patil,** Sumedh M Shirsat, Velaga Srihari, K K Pandey, Gyanendra Panchal, Devdatta M Phase, Ashok Mulchandani and Mahendra D. Shirsat, ***J. Phys. D: Appl. Phys. 2019, 52 335105 https://doi.org/10.1088/1361-6463/ab1987*** (Thomson Reuters Impact Factor : 2.37)
6.	"EDA Modified PANI/SWNTs Nanocomposite for Determination of Ni(II) Metal Ions " Megha A. Deshmukh, **Harshada K. Patil,** Gajanan A. Bodkhe, Mikito Yasuzawa, Pankaj Koinkar, Arunas Ramanaviciuse, Sadhna Pandey, and Mahendra D. Shirsat, ***Colloids and Surfaces A: Physicochem. Eng. Aspects, 537 (2018) 303–309*** *(Thomson Reuters Impact Factor : 3.131)*
7.	"EDTA-Modified PANI/SWNTs Nanocomposite for Differential Pulse Voltammetry Based Determination of Cu(II) Ions ", Megha A. Deshmukh, **Harshada K. Patil,** Gajanan A. Bodkhe, Mikito Yasuzawa, Pankaj Koinkar, Almira Ramanaviciene, Mahendra D. Shirsat, Arunas Ramanavicius, ***Sensors and Actuators B: Chemical, Volume 260, 1 May 2018, Pages 331-338*** *(Thomson Reuters Impact Factor : 6.393)*

8.	"Glassy carbon electrode modified with polyanilne/ethylenediamine for detection of copper ions", **Harshada K. Patil,** Megha A. Deshmukh, Gajanan A. Bodkhe, and Mahendra D. Shirsat, ***AIP Conference Proceedings 1953, 100034 (2018)***
9.	"Spectroscopic investigations upon 100MeV oxygen ions irradiation on polyaniline and poly-o-toluidine", **Harshada K. Patil,**Megha A. Deshmukh, Gajanan A. Bodkhe, K. Asokan, and Mahendra D. Shirsat, ***AIP Conference Proceedings 1953, 100070 (2018)***

10.	"Electrochemical detection of Hg (II) ions using EDTA-PANI/SWNTs nanocomposite modified SS electrode", M. A. Deshmukh, **H. K. Patil,** M. D. Shirsat, and A. Ramanavicius, ***AIP Conference Proceedings 1832, 050084 (2017); doi: 10.1063/1.4980317***
11.	"Copolymers of polyaniline and poly-o-toluidine: Electrochemical synthesis andcharacterization", Pooja C. Yadav, Megha A. Deshmukh, **Harshada K. Patil,** Gajanan A. Bodkhe, Pasha W. Sayyad, Nikesh N. Ingle, and Mahendra D. Shirsat, AIP Conference Proceedings 1953, 100058 (2018); doi: 10.1063/1.5032994
12.	"Glucose sensor based on conducting polyaniline nanowire electrode junction", Pankaj Koinkar, Sumedh Gaikwad, Gajanan Bodkhe, Megha Deshmukh, **Harshada Patil,** Arti Rushi, Mahendra D. Shirsat, Yun-Hae Kim and Ashok Mulchandani, ***Modern Physics Letters B, Vol. 29, Nos. 6 & 7 (2015) 1540045*** *(Thomson Reuters Impact Factor: 0.731)*
13.	"Chemiresistive sensor based on polythiophene-modified single-walled carbon nanotubes for detection of NO_2", Sumedh Gaikwad, Gajanan Bodkhe, Megha Deshmukh, **Harshada Patil,** Arti Rushi, Mahendra D. Shirsat, Pankaj Koinkar, Yun-Hae Kim and Ashok Mulchandani, ***Modern Physics Letters B,Vol. 29, Nos. 6 & 7 (2015) 1540046*** *(Thomson Reuters Impact Factor: 0.731)*

	carbon nanotubes for detection of NO_2", Sumedh Gaikwad, Gajanan Bodkhe, Megha Deshmukh, **Harshada Patil,** Arti Rushi, Mahendra D. Shirsat, Pankaj Koinkar, Yun-Hae Kim and Ashok Mulchandani, ***Modern Physics Letters B,Vol. 29, Nos. 6 & 7 (2015) 1540046*** *(Thomson Reuters Impact Factor: 0.731)*
14.	"Conducting polyaniline nanowire electrode junction", Sumedh Gaikwad, Gajanan Bodkhe, Megha Deshmukh, **Harshada Patil,** Arti Rushi, Mahendra D. Shirsat, Pankaj Koinkar, Yun-Hae Kim and Ashok Mulchandani, ***Modern Physics Letters B, Vol. 29, Nos. 6 & 7 (2015) 1540036,*** *(Thomson Reuters Impact Factor: 0.731)*

15.	"Influence of swift heavy ion irradiation on sensing properties of nickel-(NRs Ni_3HHTP_2) metal-organic framework", Nikesh N Ingle, Sumedh Shirsat, Pasha Sayyad, Gajanan Bodkhe, **Harshada Patil,** Megha Deshmukh, Manasi Mahadik, Fouran Singh, Mahendra Shirsat **Journal of Materials Science: Materials in Electronics 32 (14), 18657-18668 (2021)** *(Thomson Reuters Impact Factor: 2.478)*
16.	"Tuning the properties of Fe-BTC metal-organic frameworks (MOFs) by swift heavy ion (SHI) irradiation", Pasha W Sayyad, Nikesh N Ingle, Gajanan A Bodkhe, Megha A Deshmukh, Harshada K Patil, Sumedh M Shirsat, Fouran Singh, Mahendra D Shirsat, **Radiation Effects and Defects in Solids 176 (3-4), 274-283 (2021)** *(Thomson Reuters Impact Factor: 1.148)*
17.	ChemFET sensor: Repercussion of Swift Heavy Ion irradiation on nanorods of nickel-based (NRs-Ni3HHTP2) Metal-Organic framework, Nikesh N Ingle, Pasha Sayyad, Gajanan Bodkhe**, Harshada Patil,** Megha Deshmukh, Manasi Mahadik, Sumedh Shirsat, Fouran Singh, Mahendra Shirsat, DOI: https://doi.org/10.21203/rs.3.rs-244931/v1**(2021)**

18.	Selective and sensitive detection of lead Pb (II) ions: Au/SWNT nanocomposite-embedded MOF-199, Gajanan A Bodkhe, Bhavna S Hedau, Megha A Deshmukh, Harshada K Patil, Sumedh M Shirsat, Devdatta M Phase, Krishan K Pandey, Mahendra D Shirsat, **Journal of Materials Science 56 (1), 474-487 (2021)** *(Thomson Reuters Impact Factor: 3.69)*
19.	EDTA modified PANI/GO composite based detection of Hg (II) ions, Manasi Mahadik, **Harshada Patil,** Gajanan Bodkhe, Nikesh Ingle, Pasha Sayyad, Theeazen Al-Gahaouri, Sumedh M Shirsat, Mahendra Shirsat, **Front. Mater. 7:81.doi: 10.3389/fmats.2020.00081 (2020)** *(Thomson Reuters Impact Factor: 3.515)*

20.	"Functionalized carbon nanotubes: Facile development of gas sensor platform" Arti D. Rushi, , Sumedh Gaikwad, Megha Deshmukh, **Harshada Patil,** Gajanan Bodkhe, and Mahendra D. Shirsat, 1728, 020164 (2016); doi: 10.1063/1.4946215

List of Conference Articles/Abstracts (Oral/Poster) Presentations
Conference Proceedings

1.	"Effects of SHI Irradiation on Structure and Morphology of OCP/SWNTs Nanocomposites", **Harshada K. Patil,** Megha Deshmukh, Gajanan Bodkhe, Sumedh Gaikwad, Mahendra Shirsat, oral presentation in Sakura Science Program 2016, at T.U JAPAN.
2.	"Topographical Study of SHI Irradiated Polyaniline and Polyotoluidine", **Harshada K. Patil,**Megha A. Deshmukh, Sumedh D. Gaikwad, Gajanan A. Bodkhe, K. Asokan, and Mahendra D. Shirsat, abstract published in proceedings of International Conference on Ion Beams in Materials Engineering and Characterization (October 2016) Organised at Inter University Accelerator Centre, New Delhi, INDIA
3.	"Atomic Force Microscopy and Force Distance Spectroscopy Study of PANI/SWNTs Nanocomposite", **Harshada K. Patil,** M. A. Deshmukh, G. A. Bodkhe, S. D. Gaikwad, A. D. Rushi, Mahendra D Shirsat, paper published in "BIONANO FRONTIER", International Conference on Functional Materials and Microwaves (December 2015), organised at Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (M.S.)INDIA

4.	"Synthesis and Characterization of PANI/SWNT Composite", **Harshada K. Patil,** Megha Deshmukh, Sumedh Gaikwad, Arti Rushi, Gajanan Bodkhe, Mahendra Shirsat, paper published in proceedings of DAE – BRNS 5th Interdisciplinary Symposium on Materials Chemistry (ISMC - 2014) organized at Bhaba Atomic Research Centre (BARC) Mumbai, INDIA
5.	"Electrosyntehesis and characterization of OCP/SWNTs composites", **Harshada K. Patil,** Megha Deshmukh, Sumedh Gaikwad, Arti Rushi, Gajanan Bodkhe, Mahendra Shirsat, abstract published in proceedings of Pre Science Congress - 2014, organised at Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (M.S.)INDIA
6.	"Organic Conducting Polymer (OCP)/Single Walled Carbon Nanotube (SWNTs) Nanocomposite: Electrosynthesis And Electroanalysis", **Harshada K. Patil,** Megha Deshmukh, Sumedh Gaikwad, Arti Rushi, Gajanan Bodkhe, Mahendra Shirsat, paper published in Journal of Advances in Applied Science and Technology – Material Science Special Issue (ISSN: 2393- 8196 online) National Conference on Material Science & Technology (NCMST – 2014)

Patent

Nanocomposite For Detection Of Cu (Ii) Ions And A Method For Developing A

Sensor For The Same (Patent Number 201721000360) Date of Publication :

06/07/2018