Brief Biodata

Name: Dr. Megha Singh

Designation:	**Scientist**
DP No. and Name:	**1.06, Pressure, Vacuum and Ultrasonic Metrology**
DU No. and Name:	**1, Physico-Mechanical Metrology**
Email:	**megha.singh@nplindia.org**
Date of Joining CSIR-NPL:	**09.11.2020**
Phone *(office)*	**+91-11-4560-8451**
Mobile *(optional)*	**-**

Research Area/ Interest

Pressure and Vacuum Metrology with background in Nanostructured Materials

Educational Qualifications

(Please write latest qualification first)

Degree	**Subject**	**University/ Institute**	**Year**
Ph.D.	Nanostructured Thin Films	I.I.T. Delhi	2020
M.Tech.	Nanotechnology	J.M.I.	2012
B.Tech.	Electronics and Communication Engineering	G.G.S.IP.U.	2008

Academic / Research Experience

Grade / Post	**Institute**	**Duration**		**Research Field**
		From	**To**	
Junior Research Fellow	D.R.D.O.	15.06.2009	14.06.2011	Laser and Electro-Optic systems
Research Trainee	D.R.D.O.	02.01.2012	29.06.2012	Growth of Carbon Nanotubes on Various Substrates using CVD for Field Emission Device Applications
Research Scholar	IIT Delhi	01.01.2013	07.11.2020	Synthesis and Characterization of V_xO_y and V_2O_5-MoO_3 Nanostructured Thin Films Deposited by Plasma Assisted Sublimation Process

No. of Publications

No. of Publications in SCI Journals	No. of Publications in non-SCI Journals	No. of Publications in Conference Proceedings	Books	Total
09	**-**	**14**	**-**	**23**

Selected Publications

	Impact Factor
"Core-shell WO3-WS2 nanostructured thin films via plasma assisted sublimation and sulfurization"; P. Kumar, Megha Singh and G. B. Reddy; ACS applied Nano Materials; 2019, 2, 3, 1691–1703	5.097
"Oxidized Core−Shell MoO2−MoS2 Nanostructured Thin Films for Hydrogen Evolution"; P. Kumar, Megha Singh and G. B. Reddy; ACS Applied Nano Materials; 2020, 3, 1, 711–723	5.097
Effect of Ar, O2, and N2 Plasma on the Growth and Composition of Vanadium Oxide Nanostructured Thin Films; Megha Singh, P. Kumar, and G.B. Reddy; Advanced Material Interfaces; 2018, 5, 1800612	6.147
Plasma Assisted Synthesis and Growth Mechanism of Rare V2O5 Nanostructured Thin Films; Megha Singh, P. Kumar, R.K. Sharma, and G.B. Reddy; Journal of Alloys and Compounds; 2017, 690, 532–41	5.316
Oxidation of core-shell MoO2–MoS2 nanoflakes in different O2 ambience; P. Kumar, Megha Singh, and G.B. Reddy; Material Research Express; 2017, 4 (3), 036405	1.620
Reaction Mechanism of Core-shell MoO2/MoS2 Nanoflakes via Plasma-Assisted Sulfurization of MoO3; P. Kumar, Megha Singh, R.K. Sharma, and G.B. Reddy; Material Research Express; 2016, 3 (5), 055021	1.620
A Study on Role of Partial Pressure in Controlled Synthesis of Core-Shell MoO2/MoS2 Nanoflakes; P. Kumar, Megha Singh, R.K. Sharma, and G.B. Reddy; Material Chemistry and Physics; 2016, 178, 1–6	4.094
An Experimental Study: Role of Different Ambient on Sulfurization of MoO3 into MoS2; P. Kumar, Megha Singh, R.K. Sharma, and G.B. Reddy; Journal of Alloys and Compounds; 2016; 671, 440–445	5.316
Oxidation of Vanadium Metal in Oxygen Plasma and Their Characterizations; R.K. Sharma, Megha Singh, P. Kumar, and G.B. Reddy; AIP Advances; 2015, 5 (9), 097172	1.703

Patents

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Current Activities

(Not more than 100 words)

Operation, Maintenance and Calibrations on Barometric Pressure and Vacuum Standards in Pressure, Vacuum and Ultrasonic Metrology section of the Physico-Mechanical Metrology Division at CSIR-NPL
Establishing Force-balanced Piston Gauge as a new Primary Standard

Honour(s)/Award(s)/ Fellowship(s)

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Contributions to AcSIR

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Membership of Professional Societies/ Institutions

1. Metrology Society of India, Life Member
2. German Physical Society, Student Member
3. Physics Society, IIT Delhi, Student Member
4. Optical Society of America, IIT Delhi Chapter, Student Member

Any other Information

(Not more than 100 words)

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