Curriculum Vitae

Personal Details:

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Date of birth: 26/12/1986

Work Experience:

1. 07/2018- onwards: Research Group Leader, Institute of Materials in Electrical Engineering 1, RWTH Aachen University, Aachen
2. 03/2018-07/2018: Postdoctoral Researcher, Institute of Materials in Electrical Engineering 1, RWTH Aachen University, Aachen
3. 06/2012 – 04/2017: Postdoctoral Researcher, Biomedical Signalling Group, University of Applied Sciences Kaiserslautern, Kaiserslautern
4. 05/2011- 04/2012: Postdoctoral Researcher, Max Planck Institute for Solid State Research, Nanoscale Science Department, Stuttgart Germany
5. 03/2007- 03/2011: Doctoral candidate, Max Planck Institute for Solid State Research, Nanoscale Science Department, Stuttgart Germany
6. 07/2006-09/2006: JRF, Indian Institute of Technology Delhi, Department of Chemistry, New Delhi, India
7. May 2005 – Spt. 2005: Project Fellow, Indian Institute of Technology Madras, Unit on Nanoscience and Nanotechnology, Chennai, India & Jawaharlal Nehru Center for Advanced Scientific Research, Bangalore, India

Education:

1. **Doctoral Degree (PhD) in Physics** from Department of Physics, Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland
   Thesis on '*Self-assembled Liquid-gated ZnO Nanowire Transistors: Fabrication and Sensing operation'*
2. **Master's degree (M.Sc.) in Chemistry** from Department of Chemistry, Narain College at Dr. B.R. Ambedkar University Agra, India,
   Major in organic chemistry (Polymer and Natural products) and analytical methods
3. **Bachelor's degree (B.Sc.) in Biology** from Paliwal College at Dr. B.R. Ambedkar University Agra, India. Subjects: Zoology, Botany, Chemistry.

Selected Publications:

1. W.M. Munief, R. Lanche, X. Lu, S. Ingebrandt, V. Pachauri*, *Wafer-scale fabrication of microelectrode arrays on optically transparent polymer foils for integration of flexible nanoscale devices*, - IoP Flexible and Printed Electronics 2018, 3, 004001
2. X. Lu, W.M. Munief, F. Heib, H. M. Benia, R. Lanche, M. Schmitt, R. Hempelmann, K. Kern, V. Pachauri*, Martin Eickhoff, and Sven Ingebrandt, *Front-End-of-Line Integration of Graphene oxide for Graphene based Electrical Platforms*, Advanced Materials Technologies 2018, 3 (4), 1700318
3. A. Müller, X.T. Vu, V. Pachauri, L. A. Francis, D. Flandre, S. Ingebrandt*, *Wafer-Scale Nanoimprint Lithography Process Towards Complementary Silicon Nanowire Field-Effect Transistors for Biosensor Applications*, Physica Status Solidi A 2018, 215, 15, 1800234
4. W.M. Munief, A. Mueller, M. Schwartz, P. Wagner, R. Thoelen, S. Ingebrandt, *Graphite oxide sensors are able to distinguish single nucleotide polymorphisms in physiological buffers*, R. Lanche, V. Pachauri*, Elsevier FlatChem 2018, 7, 1-9
5. L. E. Delle, V. Pachauri*, S. Sharma, O. Shaforost, H. Ma, M. Adabi, R. Lilischkis, P. Wagner, R. Thoelen, N. Klein, R. O'Kennedy, S. Ingebrandt, *ScFv-modified Graphene-coated IDE-arrays for 'label-free' screening of cardiovascular disease biomarkers in physiological saline*, Biosensors and Bioelectronics 2018, 102, 574–581
6. Dipti Rani, Vivek Pachauri*, Achim Mueller, Xuan-thnag Vu, Thanh-Chien Nguyen, S. Ingebrandt, *On the Use of Scalable NanoISFET Arrays of Silicon with Highly Reproducible Sensor Performance for Biosensor Applications*, ACS Omega 2016, 1 (1), 84
7. V. Pachauri*, K. Kern, K. Balasubramanian, *Chemically exfoliated large-area two-dimensional flakes of molybdenum disulfide for device applications*, APL Materials 2013, 1 (3), 032102
8. V. Pachauri*, K. Kern, K. Balasubramanian, *Field-effect-based chemical sensing using nanowire-nanoparticle hybrids: The ion-sensitive metal-semiconductor field-effect transistor*, Applied Physics Letters 2013, 102 (2), 023501
9. V. Pachauri, A. Vlandas, K. Kern, K. Balasubramanian*, *Site-Specific Self-Assembled Liquid-Gated ZnO Nanowire Transistors for Sensing Applications*, Small 2010, 6 (4), 589-594
10. V. Pachauri, C. Subramaniam, T. Pradeep*, *Novel ZnO nanostructures over gold and silver nanoparticle assemblies*, Chemical Physics Letters 2006, 423, 1-3, 240-246,