



# Dr. Deepak Nand

Assistant Professor of Physics

## ADDRESS & EMAIL

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## QUALIFICATION

M.Sc. Ph D

## DATE OF JOINING

17<sup>th</sup> October 2012

## EXPERIENCE IN YEARS

11 yrs

## AREA OF SPECIALIZATION

Electronics  
Spectroscopy  
Computer Science

## ADMINISTRATIVE DISTINCTION

- SPARK Nodal Officer
- IT mission Co-ordinator
- RUSA Co-Coordinator (2018-2023)
- FIST Co-Coordinator (2020-2023)
- Research Guide (2017)
- Research Committee Member (2016-2023)
- UG Admission Coordinator (2020-2023)
- E-Tender Nodal Officer (2018-2020)
- College Calendar & Handbook Coordinator (2014-2018)
- College Website Manager (2016)
- Audio-Visual Coordinator (2012-2017)
- IQAC Member (2017-2020)

## RESEARCH OUTPUT

- Rehna R, Nand D, *Size and shape controlled seed mediated biosynthesis of silver nanoparticles. AIP Conference Proceedings 2379, 030015 (2021)*
- Maria Pilar Lopez Deber, David T. Hickman, **Nand D**, Marc Baldus, Andrea Pfeifer and Andreas Muhs. *Engineering amyloid-like assemblies from unstructured peptides. PLoS One, 9 (9) , . 2014.*

- Nand D, van der Cruijssen EA, Weingarh M, Prokofyev A, Hornig S, Cukkemane AA, Bonvin AM, Becker S, Hulse RE, Perozo E, Pongs O, Baldus M. Importance of lipid-pore loop interface for potassium channel structure and function. *Proc Natl Acad Sci U S A*. 2013 Aug 6;110(32).
- Peter J.C. Hausoul, Tamara M. Eggenhuisen, Nand D, Marc Baldus, Bert M. Weckhuysen, Robertus J.M. Klein Gebbink, Pieter C.A. Bruijninx. *Development of a 4,4'-biphenyl/phosphine-based COF for the heterogeneous Pd-catalysed telomerisation of 1,3-butadiene Catal. Sci. Technol.* 3 (2013) 2571-2579.
- Weingarh M, Prokofyev A, Van der Cruijssen E, Nand D, Bonvin A, Pongs O, Baldus M. *Structural determinants and functional aspects of specific lipid binding to potassium channels. J Am Chem Soc.* 2013 Mar 13;135(10):3983-8
- Gradmann S, Ader C, Heinrich I, Nand D, Dittmann M, Cukkemane A, van Dijk M, Bonvin AM, Engelhard M, Baldus M. *Rapid prediction of multidimensional (solid-state) NMR data sets. J Biomol NMR.* 2012 Dec;54(4):377-87.
- Weingarh M, Ader C, Melquiond A, Nand D, Pongs O, Becker S, Bonvin A, Baldus M. *Supramolecular structure of membrane-associated polypeptides by combining solid-state NMR and Molecular Dynamics simulations, Biophysical journal,* 2012 Jul 3;103(1):29-37.
- Nand D, Cukkemane A, Becker S, Baldus M. *Fractional Deuteration applied to biomolecular solid-state NMR. J Biomol NMR.* 2012 Feb;52(2):91-101.
- Cukkemane A, Nand D, Gradmann S, Weingarh M, Kaupp UB, Baldus M. *Solid-state NMR [(13)C, (15)N] resonance assignments of the nucleotide-binding domain of a bacterial cyclic nucleotide-gated channel. Biomol NMR Assign.* 2012 Oct;6(2):225-9.
- Renault M, Pawsey S, Bos MP, Koers EJ, Nand D, Tommassen-van Boxtel R, Rosay M, Tommassen J, Maas WE, Baldus M. *Solid-state NMR spectroscopy on cellular preparations enhanced by dynamic nuclear polarization. Angew Chem Int Ed Engl.* 2012 Mar 19;51(12):2998-3001.
- Schneider R, Schumacher MC, Mueller H, Nand D, Klaukien V, Heise H, Riedel D, Wolf G, Behrmann E, Raunser S, Seidel R, Engelhard M, Baldus M. *Structural characterization of polyglutamine fibrils by solid-state NMR spectroscopy. J Mol Biol.* 2011 Sep 9;412(1):121-36.
- Hickman DT, López-Deber MP, Ndao DM, Silva AB, Nand D, Pihlgren M, Giriens V, Madani R, St-Pierre A, Karastaneva H, Nagel-Steger L, Willbold D, Riesner D, Nicolau C, Baldus M, Pfeifer A, Muhs A. *Sequence-independent Control of Peptide Conformation in Liposomal Vaccines for Targeting Protein Misfolding Diseases. J Biol Chem.* 286(16): p. 13966-76. (2011).

- Ader C, Nand D, Renault M, 2. Cukkemane A , Baldus M. Solid-state NMR on membrane proteins: Methods and applications. *Advances in Biomedical Spectroscopy*, Volume 3. (2011)
- V. Sreeja, T. S. Smitha, Nand D, T. G. Ajithkumar and P. A. Joy, *Size dependent coordination behavior and cation distribution in MgAl<sub>2</sub>O<sub>4</sub> nanoparticles from Al-27 solid state NMR studies. Journal of Physical Chemistry C*, 112(38): p. 14737-14744, 2008.