

R & D COLLABORATIONS

Collaborating Institute	Area
Generic development of nanometrology for nanotechnology at NPLI (inter division,)	Nano metrology
R & D Collaboration with IISc Bangalore and Dharamshila Cancer Hospital, Delhi for the DST funded project entitled, 'Infrared spectroscopic study of tumor pathology'. It has also collaboration with Space Applications Centre, Ahmedabad sponsored project entitled, 'Validation of OCM-II Geo-physical products' (Optical instrument calibration)	Optical Radiation Standards Section
SAMTEL Colour Lab Ltd.; NAC, Allahabad	LMD group, NMITLI
CGCRI, Kolkata; IIT-Kanpur SSPL, Delhi	Project Deposition of undoped amorphous silicon films for making IR bolometer
Collaborative Academic Project between SIMS, NPL and IUAC, New Delhi	Swift Heavy Ion
Collaborative Academic Project between NPL and CARE, IIT-Delhi	Growth and characterization of nano structure material
Collaborative Academic Project between NPL and Applied Physics Dept., Okayama University, Japan	
Collaborative Academic Project between NPL and USIC, Jadavpur University, Kolkata	Growth and characterization of thin film material
Collaborative Academic Project between C.G.C., NPL and Phys. Dept., Anna University, Chennai - CAP-14 (PI)	Crystal Growth and Characterization
Collaborative Academic Project between C.G.C., NPL and Crystal Growth Centre, SNN College of Engg., Chennai, CAP-18 (PI)	Crystal Growth and Characterization
Collaborative Academic Project between C.G.C., NPL and Physics Department, Jamia Millia Islamia, CAP-24. (PI)	
Institute of Experimental Physics, Slovak Academy of science, Kosice, Slovak	Nanomagnetic fluids
NML, Jamshedpur	Ferrofluid
CEERI, Pilani	Ferrofluid thin films



Appendix - 4, R & D Collaborations

Collaborating Institute	Area
Bhavnagar University, Bhavnagar Thapar Instt. of Engg. & Tech (TIET) Patiala-147004, Punjab Tezpur univ. Napaam, Tezpur-784028, Assam RASD NPL for Biomass burning EF determination project (TK Mandal, NPL)/ DST	Ferrofluid
Hokkaido University, Sapporo, Japan,	Molecular characterization & hygroscopicity of Indian aerosols (MoCHIA) program
Under MiC/ CRM activities of CSIR Network project 'Advances in Metrology' for XI FYP, collaborations and coordination with all partners (22 nos) continued with special emphasis Bilateral S&T cooperation in the field of "Strengthening the quality infrastructure in environmental analytics".	
<ul style="list-style-type: none"> ● BHU, Varanasi ● TIFR, Mumbai ● IUAC, Indore ● IIT Kharagpur ● University of Delhi ● IIT, Delhi ● IIT, Kanpur ● JNU, New Delhi ● NIMS, Japan ● MPI, Stuttgart, Germany ● Unicamp, Brazil ● Racah Institute of Physics, Jerusalem, Israel ● DY Patil University, Kohlapur ● University of Hyderabad, Hyderabad ● Jamia Millia Islamia, New Delhi ● Missouri University, USA ● Univ. Notre dame, USA ● Univ. of Wollongong, Australia ● H.P. University, Shilma ● Karlsruhe Institute of Technology, ITP, Karlsruhe, Germany 	Superconductivity

