


Curriculum Vitae

Full Name	Dr. Rakesh Chand Ramola			
Designation	Professor			
Department	Physics			
Campus	S.R.T. Campus, Tehri			
Address	Department of Physics H.N.B. Garhwal University S.R.T. Campus, Badshahi Thaul Tehri Garhwal - 249199			
Telephone	+91-1376-254055	Telefax	254088	
Mobile	+91-9412009567; +91-9412076079			
Email	rc.ramola@hnbgu.ac.in ; rcramola@gmail.com			
Education Qualification	M.Sc., Garhwal University, 1985 Ph.D., Guru Nanak Dev University, Amritsar, 1989			
Teaching Experience	27 Years	Research Experience	34 Years	
Research Interest and Fields of Specialization				
<ol style="list-style-type: none"> 1. Radiation Protection in Environment 2. Nuclear Physics/Nuclear Geophysics 3. Material Science 				
Honours & Awards				
<ol style="list-style-type: none"> 1. Bharat Gaurav (Pride of India) Award – 2016 for meritorious service, outstanding and remarkable role in Science and Higher education by India International Friendship Society. 2. Dr. A.K. Ganguly National Award – 1995 for original and outstanding research work in the field of Environmental Radioactivity by Indian Association for Radiation Protection. 3. Best Research Paper Award – 2004, Wadia Institute of Himalayan Geology, Dehradun, India. The award was presented by then Chief Minister of Uttarakhand Shri. N.D. Tiwari. 4. Junior Associate of International Centre for Theoretical Physics, Trieste, Italy from January 1990 to December 1993. 5. Post Doc Fellow at University of Salzburg, Austria under Austrian Academic Exchange Programme from December 1990 to February 1992. 6. Invitation Fellow at National Institute of Radiological Sciences, Chiba, Japan under Japan Society for Promotion of Sciences (JSPS) invitation fellowship programme from June 1999 to March 2000. 7. Visiting Scientist at Vinca Institute of Nuclear Sciences, Belgrade, Serbia, June 4-26, 2005. 				
Member of Academic Institutions				
<ol style="list-style-type: none"> 1. Member, Governing Council, Inter University Accelerator Centre, New Delhi 2. Member, Academic Council, PLMS Autonomous Govt Post Graduate College, Rishikesh, Uttarakhand 3. Member, Board of Study, Department of Physics, H.N.B. Garhwal University 4. Member, Board of Study, Applied Sciences (Physics), Swami Ram Himalayan University, Doiwala, Dehradun 				

PARTICIPATION IN IMPORTANT ACADEMIC/ADMINISTRATIVE ACTIVITIES

1. Participated in **Training Programme on Academic Leadership**, MGA Hindi Vishwavidyalaya, Wardha from 01 May to 04 May 2018.
2. Participated in Assessors Orientation Programme of **National Assessment and Accreditation Council (NAAC)**, IIT Allahabad, 30 April 2019.
3. Participated in **MHRD sponsored Leadership for Academicians Programme (LEAP)**, IIT Kharagpur, 13 May to 24 May 2019.
4. Participated in MHRD sponsored LEAP on the topic **Leadership in Complex and Changing World**, Cambridge University, 03 June to 07 June 2019.

Membership of Scientific Organization

1. **President**, National Radon Network Society (2015–Continue).
2. Life Member, International Geo-Hazard Research Society. Head Office, Dresden, Germany. **President** (2010 – 2014).
3. Life member, Nuclear Track Society of India (2005 – 2009). Head Office, BARC, Mumbai. **Secretary** (2005 – 2009) & **Joint Secretary** (2003-2005).
4. Life Member of Indian Association for Radiation Protection, BARC, **Mumbai**
5. Life Member of Indian Science Congress Association, **Kolkata**
6. Life Member of Indian Aerosol Science and Technology Association, **Mumbai**
7. Member, Editorial Board, Journal of Radiation Research & Applied Sciences
8. Guest Editor, Radiation Protection Dosimetry, Acta Geophysics & Indian J Physics
9. Editor-in-Chief, NTSI Newsletter (2003-2009)
10. Reviewer of various national and international research journals.

Research Supervision: Number of Ph.D. Degree Awarded under my supervision: **17**

Research Projects

Completed:

1. Principal Investigator of research project entitled "Environmental Radon Studies in Garhwal Himalayas", Department of Atomic Energy, Govt of India, 1993-1996.
2. Co-Principal Investigator of research project entitled "Radon Generation and Transport Modelling in Soil", UGC, New Delhi, India, 1994-1997.
3. Principal Investigator of Research Project entitled "Studies of Radon/Thoron Levels in Garhwal and Kumaun Area", Department of Atomic Energy, Govt of India, 1996-2000.
4. Principal Investigator of Research Project entitled "An Investigation of Geological Controls on Radon and Helium in Soil/Water and its Relation to Radon Availability in Human Environment", Department of Science and Technology, New Delhi, 2002 - 2006.
5. Principal Investigator of Research Project entitled " Study of the Risk Assessment of Radon in Drinking Water of Himalayan Region", University Grants Commission, New Delhi, 2003 - 2006.

6. Principal Investigator of Research Project entitled “Characterization of Conducting Polymers and Their Structural, Electrical, Optical Properties by using Swift Heavy Ions”, Nuclear Science Centre, New Delhi, 2004 – 2006. Total Cost:
7. Principal Investigator of Research Project entitled “Synthesis and Characterization of Polyaniline and Polypyrrole by using Swift Heavy Ions”, Inter University Accelerator Centre, New Delhi, 2005 to 2008.
8. Principal Investigator of Research Project “Studies of Natural Radionuclides in Himalayan Environment”, Department of Atomic Energy, Government of India, 2005 to 2009.
9. Indian Collaborator of an International Research Project “Establishment of Network for Natural Radiation Exposure Studies in Asia”, Japan Science & Technology Agency, May 2009 to March 2012.
10. Principal Investigator of Research Project “Retrospective Assessment of Indoor Radon Exposure in Garhwal Homes by Measurements of ²¹⁰Po Implanted on Glass Surface”, Atomic Energy Regulation Board, 2009 to 2013.
11. Principal Investigator of Research Project “A Comparative Study Among Different Techniques for Radon/Thoron Progeny Measurements in the Normal and High Background Radiation Areas”, Department of Atomic Energy, Govt of India, 2011 to 2016.
12. Principal Investigator, Research Project “Strengthening the Infrastructural Facility at Nodal Centre at H.N.B. Garhwal University to pursue Radon/Thoron Studies in Northern India”, Department of Atomic Energy, Govt of India, 2014 to 2018.

Memorandum of Understanding

Completed:

1. Indian Collaborator of an International Research Project “Establishment of Network for Natural Radiation Exposure Studies in Asia”, **Japan Science & Technology Agency**, May 2009 to March 2012.
2. Coordinator, Nodal Calibration Centre at HNB Garhwal University, established under the MoU, signed with **Bhabha Atomic Research Centre, Mumbai** to strengthen radon studies in states of Delhi, Uttar Pradesh, Uttarakhand, Himachal Pradesh and Jammu & Kashmir, April 2011 – March 2016.

On Going:

1. Coordinator, MoU for setting up DAE Technologies Display and Dissemination facility at SRT Campus, Badshahi Thaul, 2017 – Continue.

Administrative Experience

1. **Director**, H.N.B. Garhwal University, S.R.T. Campus, Badshahi Thaul, Tehri Garhwal from 13 July 2013 to 31 July 2019.
2. **Deputy Dean Students Welfare**, H.N.B. Garhwal University Campus, Badshahi Thaul, Tehri Garhwal from August 2011 to July 2013.

3. **Chairman, Sports Council**, H.N.B. Garhwal University Campus, Badshahi Thaul, Tehri Garhwal, from September 2009 to July 2013 and Member, Sports Council, 1996-1999 and 2000-2005.
4. **Asst Dean Students Welfare**, H.N.B. Garhwal University Campus, Badshahi Thaul, Tehri Garhwal from August 2000 to April 2004 & Oct 2010 to August 2011
5. **Assistant Proctor**, H.N.B. Garhwal University Campus, Badshahi Thaul, Tehri Garhwal from July 2008 to June 2009 & August 2010 to November 2010.
6. **Coordinator, CISCO Networking Local Academy**, H.N.B. Garhwal University Campus, Badshahi Thaul, Tehri Garhwal, 2004 to 2009.
7. **Advisor, Guidance and Counselling Cell**, H.N.B. Garhwal University Campus, Badshahi Thaul, Tehri Garhwal, August 2004 to June 2006.
8. **Head, Department of Computer Science**, H.N.B. Garhwal University, Tehri from September 1997 to June 1999.
9. **Programme Officer**, National Service Scheme, H.N.B. Garhwal University Campus, Tehri Garhwal, 1995 to 1999.
10. **Chief Election Officer** of Student Union, H.N.B. Garhwal University Campus, Tehri Garhwal, 2001.
11. Member, **Sports Council**, H.N.B. Garhwal University Campus, Badshahi Thaul, Tehri Garhwal, 1996-1999 and 2000-2005. Actively participated on sports activities in the campus.

Scientific Visits Abroad

1. **Italy**: To attend extended workshops at ICTP, Italy (**1988; 1990; 1991; 2000**) & participation in international symposium at Pisa (**2010**)
2. **Slovenia/Yugoslavia**: Visit to Research Reactor of Jozef Stefan Institute, Ljubljana (**1988**)
3. **Austria**: Post Doc Fellow at University of Salzburg (**1990 – 1992**)
4. **Japan**: Participation in international conferences at Fukuoka and Chiba (**1997**), worked as JSPS Invitation Fellow at National Institute of Radiological Sciences, Chiba (**1999-2000**), participation in international conference at Osaka and Chiba (**2004**), collaborative project meeting at Chiba (**2009**), international conferences at Chiba and Tokyo (**2010**), international conference at Hirosaki (**2014**), international conference at Hiroshima (**2019**).
5. **Serbia and Montenegro**: Participation in international workshop and worked as Visiting Scientist at Vinca Institute of Nuclear Sciences, Belgrade (**2005**).
6. **Germany**: Participated in international conferences at Dresden (**2005; 2008; 2019**)
7. **Taiwan**: Participation in international conference at Taiwan (**2007; 2016**)
8. **Poland**: Participation in international conference at Zakopane and visit to Institute of Nuclear Physics, Krakow (**2009**).
9. **Turkey**: Participation in international conference at Istanbul (**2009**)
10. **United States of America**: Participation in ICRP meeting at Bethesda, Washington (2011) and international conference at NASA, San Jose, California (2014)
11. **Australia**: Participation in international conference at Brisbane (2013)
12. **Singapore**: Participation in international conference at Singapore (2017)
13. **United Kingdom**: Participated in MHRD sponsored Leadership for Academicians Programme (LEAP), Cambridge University (2019).

Conference/Symposium/Workshop Attended during last five years (2014-2019)

International

1. Delivered a talk and chaired a session in Ninth International Symposium on Natural Radiation Environment, **Hirosaki, Japan**, September 23-26, 2014.
2. Delivered a talk in Fourth International Geo-Hazards Research Symposium, **NASA, San Jose, USA**, December 10-12, 2014.
3. Delivered a talk and chaired a session in Fifth International Geo-Hazards Research Symposium, **Taipei, Taiwan**, October 17-20, 2016.
4. Delivered a talk and chaired a session in International Conference on Material Engineering and Nano Sciences, **NTU Singapore**, January 07-09, 2017.
5. Delivered a talk and chaired a session in International Conference on Environmental Impact of Advanced Materials and Energy Technologies. **Hyderabad**, January 19-21, 2017.
6. Delivered a talk and chaired a session in Sixth International Geo-Hazards Research Symposium, **Dresden, Germany**, March 4-9, 2018.
7. Delivered a talk and chaired a session in International conference on Aerosol, Air Quality and Climate Change, **Srinagar (Garhwal)**, India, Oct 21-23, 2018.
8. Delivered a talk and chaired a session in International Conference on Climate Change and Disaster Risk Management, **Tehri Garhwal**, October 26-28, 2018.
9. Delivered a talk in Third International Conference on Material Engineering and Nano Sciences, **Hiroshima, Japan**, March 26-28, 2019.
10. Delivered a talk and chaired a session in International Conference on Material Science and Applications, **Srinagar (Garhwal)**, November 25-27, 2019.

National

1. Delivered a keynote address and chaired a session in National Conference on Radiation and Health Hazards, **Allahabad**, February 21-22, 2014.
2. Chaired a session in National Symposium on Mind, Matter and Mathematics: A Dialogue, H.N.B. Garhwal University, Badshahi Thaul Campus, **Tehri**, March 12-14, 2014.
3. Delivered a talk and chaired a session in National Conference on Sustainable Development of India: Challenges and Remedies, H.N.B. Garhwal University, Badshahi Thaul Campus, **Tehri**, March 22-23, 2014.
4. Delivered a talk and chaired a session in National Workshop on Recent Trends in Atmospheric and Environmental Sciences, **Haridwar**, April 04-05, 2014.
5. Delivered a talk and chaired a session in National Seminar on Geo-Environmental Hazards and Neo-Tectonic Activities in Himalaya, **Tehri Garhwal**, October 28-30, 2014.
6. Delivered a talk and chaired a session in National Seminar on New Horizons in Theoretical and Experimental Physics, **Gopeshwar**, February 19-20, 2015.
7. Delivered a talk and chaired a session in National Conference on Environmental Radiation and Functional Materials, **Hyderabad**, February 28 – March 01, 2015.
8. Delivered a talk and chaired a session in First National Conference on Radiation Awareness and Detection in Natural Environment, **Tehri**, June 15-17, 2015.

9. Delivered a Keynote Address in Workshop on an Interactive Programme among University Teachers, School Teachers and Students for Encouragement of Science Education and Research in Uttarakhand. **Tehri**, Feb 28–29, 2016
10. Delivered a talk and chaired a session in Sixth National Conference on Nanomaterials and Nanotechnology. **Lucknow**, February 11-13, 2017.
11. Delivered a talk and chaired a session in Second National Conference on Radiation Awareness and Detection in Natural Environment, **Haridwar**, September 25-27, 2017.
12. Delivered a talk in National Symposium on Recent Trends in Physics at Different Scale. **Haridwar**, October 29-31, 2017.
13. Delivered a talk National Workshop on Role of Open Education Resources in Higher Education, **Srinagar (Garhwal)**, December 15-17, 2017.
14. Delivered a talk and chaired a session in National Conference on Earthquake: Investigation and Instrumentation, **CSIO, Chandigarh**, September 23-24, 2019.
15. Delivered a talk and chaired a session in National Symposium on Solid State Nuclear Detectors and Applications, **Amritsar**, October 18-20, 2019.
16. Delivered a talk and chaired a session in National Conference on Promoting the Advancement of Applied Sciences, **Tehri**, October 22-23, 2019.
17. Delivered a talk and chaired a session in National Conference on Environmental Radiation: Impact on Society and its Implications, Jadavpur University, **Kolkata**, November 15-16, 2019.

Conference/Symposium/Workshop Organized during last five years (2014-2019)

1. Member Scientific Committee of Third International Conference on Material Engineering and Nano Sciences, **Hiroshima, Japan**, March 26-28, 2019.
2. Chairman of International Conference on Climate Change and Disaster Risk Management, **Tehri Garhwal, India**, October 26-28, 2018.
3. Member Scientific Committee of Sixth International Geo-Hazards Research Symposium, **Dresden, Germany**, March 04-09, 2018.
4. Member Organizing Committee of International Conference on Environmental Impact of Advanced Materials and Energy Technologies. **Hyderabad**, January 19-21, 2017.
5. Member Scientific Committee of International Conference on Material Engineering and Nano Sciences, NTU **Singapore** January 07-09, 2017.
6. Member Scientific Committee of Fifth International Geo-Hazards Research Symposium, **Taipei, Taiwan**, October 17-20, 2016.
7. Chairman of First National Conference on Radiation Awareness and Detection in Natural Environment, **Tehri Garhwal**, June 15-17, 2015.
8. Chairman of National Seminar on Geo-Environmental Hazards and Neo-Tectonic Activities in Himalaya, **Tehri Garhwal**, October 28-30, 2014.
9. Member, Scientific Committee, Ninth International Symposium on the Natural Radiation Environment, **Hirosaki, Japan**, September 23-26, 2014.
10. Chairman of National Symposium on Mind, Matter and Mathematics: A Dialogue, H.N.B.G.U. Campus, **Tehri**, March 12-14, 2014.
11. Chairman of National Conference on Sustainable Development of India: Challenges and Remedies, H.N.B. Garhwal University, Badshahi Thaul Campus, **Tehri**, March 22-23, 2014.

Publications during last five years (2014-2019)

Journals

1. Assessment of natural radioactivity levels and associated dose rates in soil samples from Northern Rajasthan, India. Vikas Duggal, Asha Rani, Rohit Mehra and **R.C.Ramola**. *Radiation Protection Dosimetry* **158** (2014) 235-240.
2. Distribution of natural radioactivity in soil samples and radiological hazards in building material of Una, Himachal Pradesh. Pankaj Bala, Rohit Mehra and **R.C.Ramola**. *J. Geochemical Exploration* **142** (2014) 11-15.
3. Levels and effects of natural radionuclides in soil samples of Garhwal Himalaya. Manjulata Yadav, Mukesh Rawat, Anoop Dangwal, Mukesh Prasad, G.S.Gusain and **R.C.Ramola**. *J. Radioanalytical and Nuclear Chemistry* **302** (2014) 869-873.
4. Ion beam induced modifications in Polysulphone polymer. Anju Semwal, Ambika Negi, Teena Sehgal, Veena Joshi, Indra Sulania, F.Singh and **R.C.Ramola**. *Advanced Science Letters* **20** (2014) 1151-1154.
5. Thermal annealing induced anomalous band gap modifications in nanocrystalline antimony doped Tin Oxide thin films. M.P.S.Rana, Sandhya Negi, Mukesh Rawat, S.K.Gautam, Fouran Singh, R.G.Singh and **R.C.Ramola** *Advanced Science Letters* **20** (2014) 1410-1413.
6. Distribution of natural radionuclide along Main Central Thrust in Garhwal Himalaya. **R.C.Ramola**, Manjulata Yadav and G.S.Gusain. *J. Radiation Research and Applied Sciences* **7** (2014) 614-619.
7. Assessment of Natural Radionuclides in the soil samples from Marwar region of Rajasthan, India. Asha Rani, Sudhir Mattal, Rohit Mehra and **R.C.Ramola**. *Applied Radiation Isotopes* **101** (2015) 122-126.
8. Comparative study of various techniques for environmental radon, thoron and progeny measurements. **R.C.Ramola**, Mukesh Prasad, Anoop Dangwal, G.S.Gusain, Rosaline Mishra, S.K.Sahoo and S.Tokonami. *Radiation Protection Dosimetry* **167** (2015) 22-28.
9. Measurements of radon and thoron progeny concentrations in dwellings of Tehri Garhwal, India using LR-115 deposition based DTPS/DRPS technique. Mukesh Prasad, Mukesh Rawat, Anoop Dangwal, Manjulata Yadav, G.S.Gusain, Rosaline Mishra and **R.C.Ramola**. *Radiation Protection Dosimetry* **167** (2015) 102-106.
10. Natural radionuclides analysis in soil samples of Purola area of Garhwal Himalaya, India. Manjulata Yadav, Mukesh Rawat, Anoop Dangwal, Mukesh Prasad, G.S.Gusain and **R.C.Ramola**. *Radiation Protection Dosimetry* **167** (2015) 215-218.
11. Effect of swift heavy ion on structural and optical properties of highly transparent zinc oxide films. Sandhya Negi, M.P.S. Rana, Fouran Singh and **R.C.Ramola**. *J Sol-Gel Sci Technol* **76** (2015) 608-613.
12. Variability of radon and thoron equilibrium factors in indoor Environment of Garhwal Himalaya. Mukesh Prasad, Mukesh Rawat, Anoop Dangwal, Tushar Kandari, G.S.Gusain Rosaline Mishra and **R.C.Ramola**. *J. Environmental Radioactivity* **151** (2016) 238-243.
13. Band gap engineering and low temperature transport phenomenon in highly conducting antimony doped tin oxide thin films. M.P.S.Rana, Fouran Singh, Sandhya Negi, Subodh K. Gautam, R.G.Singh and **R.C.Ramola**. *Ceramics International* **42** (2016) 5932-5941.

14. Structural and optical modification of Ga-doped zinc oxide thin films induced by thermal annealing. Sandhya Negi, Mahender Partap Singh Rana, Subodh K Gautam, R.G.Singh, Fouran Singh and **R.C.Ramola**. *Ind. J. Pure Appl. Phys.* **54** (2016) 236-240.
15. Estimation of annual effective dose from radon concentration along Main Boundary Thrust (MBT) in Garhwal Himalaya. Tushar Kandari, Mukesh Prasad, Sunita Aswal, A.A.Bourai and **R.C.Ramola**. *J. Radiation Research and Applied Sciences* **9** (2016) 228-233.
16. Band gap widening and narrowing in Cu-doped ZnO thin films. Kanchan Joshi, Mukesh Rawat, Subodh K. Gautam, R.G.Singh, **R.C.Ramola** and Fouran Singh. *Journal of Alloys and Compounds* **680** (2016) 252-258.
17. Long-term measurements of residential radon, thoron, and thoron progeny concentrations around the Chhatrapur placer deposit, a high background radiation area in Odisha, India. Yasutaka Omori, Ganesh Prasad, Atsuyuki Sorimachi, S.K.Sahoo, Tetsuo Ishikawa, D. Vidya Sagar, **R.C.Ramola** and Shinji Tokonami. *J. Environmental Radioactivity* **162-163** (2016) 371-378.
18. Natural radioactivity level and elemental composition of soil samples from a high background radiation area on eastern coast of India (Odisha). S.K.Sahoo, R.Kierepko, A.Sorimachi, Y.Omori, T.Ishikawa, S.Tokonami, G.Prasad, G.S.Gusain and **R.C.Ramola**. *Radiation Protection Dosimetry* **171** (2016) 172-178.
19. Study of radiation exposure due to radon, thoron and progeny in the indoor environment of Yamuna and Tons valleys of Garhwal Himalaya. Mukesh Prasad, Mukesh Rawat, Anoop Dangwal, Ganesh Prasad, Rosaline Mishra and **R.C.Ramola**. *Radiation Protection Dosimetry* **171** (2016) 187-191.
20. Study of radiation exposure due to radon, thoron and their progeny in the indoor environment of Rajpur region of Uttarakhand Himalaya. Tushar Kandari, Sunita Aswal, Mukesh Prasad, Preeti Pant, A.A.Bourai and **R.C.Ramola**. *Radiation Protection Dosimetry* **171** (2016) 204-207.
21. A comparative study of diurnal variation of radon and thoron concentrations in indoor environment. Preeti Pant, Tushar Kandari, Mukesh Prasad and **R.C.Ramola**. *Radiation Protection Dosimetry* **171** (2016) 212-216.
22. Measurement of radon, thoron and their progeny in different types of dwellings in Almora district of Kumaun Himalaya region. Kuldeep Singh, Poonam Semwal, Preeti Pant, G.S.Gusain, Manish Joshi, B.K.Sapra and **R.C.Ramola**. *Radiation Protection Dosimetry* **171** (2016) 223-228.
23. Measurement of radon, thoron and their progeny concentrations in the dwellings of Pauri Garhwal, Uttarakhand, India. Veena Joshi, Sanjay Dutt, Manjulata Yadav, Rosaline Mishra, and **R.C.Ramola**. *Radiation Protection Dosimetry* **171** (2016) 234-237.
24. Emission of soil gas radon concentration around main central thrust in Ukhimath (Rudraprayag) region of Garhwal Himalaya. Sunita Aswal, Tushar Kandari, B.K.Sahoo, A.A.Bourai and **R.C.Ramola**. *Radiation Protection Dosimetry* **171** (2016) 243-247.
25. A comparative study of radium content and radon exhalation rate from soil samples using active and passive techniques. Manjulata Yadav, Mukesh Prasad, Veena Joshi, G.S.Gusain and **R.C.Ramola**. *Radiation Protection Dosimetry* **171** (2016) 254-256.

26. Study of radon flux from soil in Budhakedar region using SRM. A.A.Bourai, Sunita Aswal, Tushar Kandari, Shiv Kumar, Veena Joshi, B.K.Sahoo and **R.C.Ramola**. *Radiation Protection Dosimetry* **171** (2016) 267-270.
27. Dose estimation derived from the exposure to radon, thoron and their progeny in the indoor environment. **R.C.Ramola**, Mukesh Prasad, Tushar Kandari, Preeti Pant, Peter Bossew, Rosaline Mishra and S.Tokonami. *Scientific Reports - Nature* **6** (2016) 31061 (16 pp)
28. Influence of electronic excitations on structural, optical and electrical properties of undoped and antimony doped tin oxide thin films. M.P.S.Rana, Fouran Singh, Kanchan joshi, Sandhya Negi and **R.C.Ramola**. *Thin Solid Films* **616** (2016) 34-42.
29. Micro-Raman and electronic structure study on kinetics of electronic excitations induced monoclinic-to-tetragonal phase transition in zirconium oxide films. Mukesh Rawat, Arkaprava Das, D.K.Shukla, Parasmani Rajput, Abdelhak Chettah, D.M.Phase, **R.C.Ramola** and Fouran Singh. *RSC Advances* **6** (2016) 104425-104432.
30. Study of phase transformation induced by electronic excitation in pure and Yttrium doped ZrO₂ thin films. **R.C.Ramola**, Mukesh Rawat, Kanchan Joshi, Arkaprava Das, Subodh K Gautam and Fouran Singh. *Materials Research Express* **4** (2017) 096401 (11 pp).
31. Photoluminescence and reflectivity studies of high energy light ions irradiated polymethyl methacrylate films. Madhu Lata Bharti, Fouran Singh, **R.C.Ramola** and Veena Joshi. *Optical Materials* **73** (2017) 550-554.
32. Indoor radon, thoron and their progeny concentrations in high thoron rural Serbia environments. Z.S.Zunic, Z.Stojanovska, N.Veselinovic, R.Misha, I.V.Yarmoshenko, B.K.Sapra, T.Ishikawa, Y.Omori, Z.Curguz, P.Bossew, V.Udovicic and **R.C.Ramola**. *Radiation Protection Dosimetry* **177** (2017) 36-39.
33. Estimation of natural radionuclides in the soil samples and its radiological impact on human health. Sudhir Mittal, Asha Rani, Rohit Mehra and **R.C.Ramola**. *Radiation Effects and Defects in Solids* **173** (2018) 673-682.
34. Dose assessment from the exposure to attached and unattached progeny of radon and thoron in indoor environment. Mukesh Prasad, Peter Bossew, G. Anil Kumar, Rosaline Mishra and **R.C.Ramola**. *Acta Geophysica* **66** (2018) 1187-1194.
35. Measurement of ²²²Rn and ²²⁰Rn radon exhalation rate from soil samples of Kumaun hills, India. Poonam Semwal, Kuldeep Singh, T.K.Agarwal, Manish Joshi, Preeti Pant, Tushar Kandari and **R.C.Ramola**. *Acta Geophysica* **66** (2018) 1203-1211.
36. A comprehensive study of radon levels and associated radiation doses in Himalayan groundwater. Mukesh Prasad, G. Anil Kumar, B.K.Sahoo and **R.C.Ramola**. *Acta Geophysica* **66** (2018) 1223-1231.
37. Study of radon flux and natural radionuclides (²²⁶Ra, ²³²Th and ⁴⁰K) in the Main Boundary Thrust region of Garhwal Himalaya. Tushar Kandari, Mukesh Prasad, Preeti Pant, Poonam Semwal, A.A.Bourai and **R.C.Ramola**. *Acta Geophysica* **66** (2018) 1243-1248.
38. Continuous measurement of equilibrium equivalent radon/thoron concentration using time-integrated flow-mode grab sampler. Preeti Pant, Tushar Kandari, Mukesh Prasad, Poonam Semwal and **R.C.Ramola**. *Acta Geophysica* **66** (2018) 1267-1272.

39. Health risks associated with the exposure to uranium and heavy metals through potable groundwater in Uttarakhand state of India. Mukesh Prasad, G. Anil Kumar, S.K.Sahoo and **R.C.Ramola**. *J. Radioanalytical and Nuclear Chemistry* **319** (2019) 13-21.
40. Indoor inhalation dose assessment for thoron-rich regions of Indian Himalayan belt. Poonam Semwal, Tarun Kumar Agarwal, Kuldeep Singh, Manish Joshi, G.S.Gusain, B.K.Sahoo and **R.C.Ramola**. *Environmental Science and Pollution Research* **26** (2019) 4855-4866.
41. Radiological impact assessment of soil and groundwater of Himalayan regions in Uttarakhand, India. Mukesh Prasad, V. Ranga, G. Anil Kumar, **R.C.Ramola**. *Journal of Radioanalytical and Nuclear Chemistry* **323** (2020) 1269-1282.

Conference Proceedings/Book Chapters

42. Perception of radiation hazards due to thoron and its progeny in indoor environment. **R.C.Ramola**, G.S.Gusain and Mukesh Prasad. *Geo-Hazards: Recent Research*, Narosa Publishing House, New Delhi (2015) pp. 18-29.
43. Radon generation and decay from soil and groundwater of Budhakedar, Garhwal Himalaya. Ganesh Prasad, G.S.Gusain, Subhash Chandra and **R.C.Ramola**. *Geo-Hazards: Recent Research*, Narosa Publishing House, New Delhi (2015) pp. 64-69
44. Variation of radon levels in soil and groundwater and its relation with seismic activity in Garhwal Himalaya. G.S.Gusain, Ganesh Prasad, Subhash Chandra and **R.C.Ramola**. *Geo-Hazards: Recent Research*, Narosa Publishing House, New Delhi (2015) pp. 96-105.
45. Measurement of natural radioactivity, radon exhalation rate and radiation hazard assessment in Indian cement samples. Anil Sharma, Ajay Kumar Mahur, Manjulata Yadav, R.G.Sonkawade, A.C.Sharma, **R.C.Ramola** and Rajendra Prasad. *Physics Procedia* **80** (2015) 135-139.

Edited Books

1. Editor of the Proceedings of Twelfth National Symposium on Environment, Tehri Garhwal, India, June 5-7, 2003, **572 pages**
2. Guest Editor of Indian Journal of Physics (*Springer*), **Volume 83 (Nos. 6, 7 & 8), 2009**, published as the Proc. 15th National Symposium on Solid State Nuclear Track Detectors and Their Applications, Tehri Garhwal, India, June 21-23, 2007.
3. Guest Editor of topical issue "Geo-Hazards" of Acta Geophysica (*Springer*), **Volume 61, Issue 4 (2013)**, published as the Proceedings of Third International Geo-Hazards Research Symposium, Tehri Garhwal, India, June 10-14, 2012.
4. *Geo Hazards: Recent Research (2015)*. ISBN: 978-81-8487-396-2. Narosa Publishing House, New Delhi, India. **216 pages**
5. Guest Editor of Radiation Protection Dosimetry (*Oxford University Press*), **Volume 171, No. 2, 2016**, published as the Proceedings of First National Conference of Radiation Awareness and Detection in Natural Environment, Tehri Garhwal, India, June 15-17, 2015.
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Total Number of Research Publications: Research Papers = 185; Books = 06

**Most of the listed publications can be viewed online on Scopus,
Google Scholar and Research Gate**

Scopus Author ID: 7003348325

ORCID ID <http://orcid.org/0000-0003-0948-0461>

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