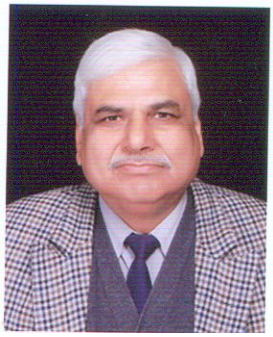
Curriculum Vitae



1. **Name** : **Dr. V.P.Singh**
2. **Date of Birth** : **8th July, 1954**
3. **Designation** : **Professor (Re-employed)**
4. **Address** : **Department of Physics,**
   Panjab University,Chandigarh (India)
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Field of Specialization : Mass-spectrometry and Geochronology

5. **Academic and professional career**

a) **Academic career:**

Degree	Subject	Year	Board/University	Remarks
High School	Science,Maths,Hindi, English and Art	1967	U.P.Board, Allahabad	1st division
Intermediate	Physics,Chem.,Maths., Hindi and English	1969	--------do----------	1st division

B.Sc.	Physics, Chemistry and Mathematics	1971	Meerut University	1st division
M.Sc.	Physics	1973	Agra University	1st division
Certificate Course	German	1976	Panjab University, Chandigarh	1st division
Ph.D.	Physics (Mass-Spectrometry and Geochronology)	1983	Panjab University, Chandigarh	Title**

**** Rb-Sr Radiometric dating and Isotopic analyses of some of the granites and gneisses of Outer Lesser Himalaya, Inner Lesser Himalaya and Higher Himalaya of Kumaun; Uttar Pradesh,India.**

b) Professional Career:

Position held	Year	Organization/Institution
J.R.F. of C.S.I.R.	1973-76	Deptt. of Physics, P.U. Chandigarh
S.R.F. of C.S.I.R.	1976-78	----------do----------
Teaching Assistant	1978-81	----------do----------
Lecturer	1981-91	----------do----------
Reader	1991-2003	----------do----------
Professor	2003 till date	----------do----------

6. Award/Prize/Certificate etc.

a) High School : First class with distinction in Mathematics

b) Intermediate : i) Awarded U.P. Board Scholarship for two years on the basis of High School result.

ii) First class with distinction in Chemistry and Mathematics

c) I was selected by INSA to visit the various Institutes of USSR for two months in 1986 under the scientific exchange program of INSA and USSR Academy of Sciences, Moscow.

7. Research Guidance: Ph.D. : Three,

M.Phil. : Three and M.Sc. Project : One

8. Principal Investigator of research projects:

a) U.G.C. : One

b) D.S.T. : One

9. Experience

A) Research : More than forty one years in the field of Mass-spectrometry and Rb-Sr Geochronology

B) Teaching

i) M.Phil. : Mass-spectrometry and Geophysics (five semesters)

ii) M.Sc. (H.S.) : Classical Mechanics (fifteen semesters) and Statistical Mechanics (five semesters)

iii) B.Sc. (H.S.) :

Mechanics, Special Theory of Relativity, Electricity and Magnetism, Electronics and Modern Physics

C) Administration

a) Convener of admission committee for the last seven years

b) Teacher Incharge of B.Sc. (H.S.) 2nd year laboratory for the last ten years

c) Convener of Technical Committee for the last five years

d) Teacher Incharge of purchase section for the last five years

e) Chairperson, Department of Physics for five months.

Brief write up of research contribution

Mass-spectrometry and Geochronology is an interdisciplinary subject which involves Physics, Chemistry and Geology. We are carrying out Rb-Sr Isotopic and Geochronological investigations on the granitic and gneissic rocks of the Himalaya using a VG 70/70F double focusing Mass-spectrometer fitted with Thermal Ionization Source which was procured about 34 years ago. Mass-spectrometer is still working but with some technical problems here and there.

The granitic and gneissic rocks have preserved in them episodes of magmatic and metamorphic activities which occurred over a great span of time from Precambrian to

recent, including Himalayan Orogeny. It is not possible to establish and define precisely most of these events by routine geological methods such as the nature of xenoliths present, field relationship with the country rocks, petrographical similarities, structural trends, grade of metamorphism etc.

The Rb-Sr isotopic and geochronological studies provide an invaluable tool to unravel many important events such as the ages of some igneous and metamorphic rocks, petrogenetic history, metamorphism, mineral ages, rate of cooling etc. The Rb-Sr age data could be used for correlation of the rocks under study with their possible equivalents in different parts of the Himalaya and also in the Peninsular India.

Highlights / achievements of Research Work done by the group :

The group has published a number of Rb-Sr isotopic ages for the Himalayan granites and gneisses which provided a new dimension to the interpretation of geological events and completely changed the old conjectural geological thinking about these rocks. Thus when Jaeger et al, 1971 for the first time reported the age of 517± 100 M.Y. for the Mandi granite, it was taken with criticism as most of the geologists at that time considered it to be of Tertiary age (<65M.Y.). When the same age data was confirmed by scientists working in foreign laboratories, it changed the geological thinking. The work of the group led to the recognition of the following main periods of magmatic activity based on Rb-Sr whole rock isotopic ages of the granites and gneisses:

a) Ages around 2000 M.Y.

The granitic and gneissic rocks of this age group have been reported from Munsiari, Askot, Tawaghat, Namik, Dhakuri, Joshimath-Guptkashi, Hanuman Chatti, Rihee-Gangi, Bhatwari and Naitwar areas of Kamaun-Garhwal Himalaya; Wangtu, Bandal and Baragaon of Himachal Himalaya and Shasho and Lopara Kashmir Himalaya.

b) Ages around 1500 M.Y.

The granites and gneisses of this age group have been found from Mayali, Maithana, Chandrapuri, Chamoli and Amritpur areas of Kumaun Himalaya; Baragaon and Nirath of Himachal Himalaya and Kalaktang of Arunachal Himalaya.

c) Ages around 1200 M.Y.

The rocks of the age group of about 1200 M.Y. include Koidal gneiss, Gwaldom granite, Baijnath-Therali gneiss, Ramgarh gneiss and Amritpur grey granite of Kumaun Himalaya and Bandal granite and Chor granitic gneiss of Himachal Himalaya.

d) **Ages around 500 M.Y.**

This is the most widely spread age group. The granites and gneisses of the age group of about 500 M.Y. have been reported from Doda and Kishtwar- Thathari areas of Kashmir Himalaya; Mandi,Karsog, Sarangi- Ranga Thach N.E. of Manikaran, Manali, Koksar, Chhotadara, Jaspa, Dalhousie, Akpa, Rakcham-Chitkul-Sangla, Chor and Khadrala areas of Himachal Himalaya and Ranikhet, Champawat, Dudatoli, Vaikrita group north of Tawaghat and Harsil areas of Kumaun Himalaya.

e) **Ages around 350 M.Y.**

The granitic and gneissic rocks of this age group have been obtained from Dalhousie area of Himachal Himalaya and Masi, Lansdowne and Almora areas of Kumaun Himalaya.

List of publications

1. **Rb-Sr Radiometric Studies for the Dalhousie and Rohtang areas,Himachal Pradesh. Curr.Sci.,Vol.44,No.7,p.219-220,1975. V.B.Bhanot, A.K.Goel, V.P.Singh and S.K.Kwatra**
2. **The petrographic studies and the Age Determination of Koidal Gneiss,Kumaun Himalaya. Curr. Sci.,Vol.45,No.1,p.18,1976. V.B.Bhanot, A.K.Bhandari, V.P.Singh and A.K.Goel.**
3. **Precambrian (1220 m.y.) Rb-Sr whole rock isochron age for Bandal granite,KuluHimalaya, Himachal Pradesh. Himalayan Geology Seminar held during 13-17 ,Sept.,1976. V.B.Bhanot, A.K.Bhandari, Veerpal Singh and Ashok K.Kansal.**
4. **Early Proterozoic Rb-Sr whole rock age for Central Crystallines gneiss of Higher Himalaya, Kumaun. Jour.Geol.Soc.,India,V.13,p.90-91,1977. V.B.Bhanot, Veerpal Singh, Ashok K.Kansal and Vikram C.Thakur**
5. **Rb-Sr whole rock age of the granitic gneiss from Askot area,eastern Kumaun and its implication on tectonic interpretation of the area.Him.Geol.V.7, p. 118-122,1977. V.B.Bhanot, B.K.Pandey, V.P.Singh and V.C.Thakur**
6. **Rb-Sr age of granites and gneisses from Himalaya. Fourth International Conference: Geochronology, Cosmochronology, Isotope Geology held in United States, Department**

of the Interior Geological Survey, Aug.20-25,1978.

V.B.Bhanot, A.K.Kansal, S.K.Kwatra, B.K.Pandey and V.P.Singh

7. Geochronological and Geological studies on a granite of Higher Himalaya northwest of Manikaran, Himachal Pradesh. Geol. Soc. India,V. 20, 90-94,1979.

V.B.Bhanot, A.K.Bhandari, V.P.Singh and Ashok K.Kansal

8. Rb-Sr isotopic studies on the granitic and gneissic rocks of Baijnath Crystallines, Kumaun Himalaya (U.P.). Him. Geol.Vol.10,p. 256-263,1980.

B.K.Pandey, V.P.Singh, S.K.Kwatra and V.B.Bhanot

9. Rb-Sr ages for some granitic and gneissic rocks of Kumaun and Himachal Himalaya. In stratigraphy and correlations of Lesser Himalayan Formations, Ed. K.S.Valdiya and S.B.Bhatia, Hindustan Publ. Corp. p. 134-142,1980.

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10. Rb-Sr Isochron age for the gneissic rocks of Askot Crystallines, Kumaun Himalaya (U.P.). Conteporary Geoscientific researches in Himalaya,(Ed.A.K.Sinha,Dehradun) p.117-120,1981.

V.B.Bhanot, V.P.Singh, B.K.Pandey and Rampal Singh

11. Rb-Sr age data for the gneissic rocks from Dhakuri, Joshimath and Guptkashi areas of Central Crystalline Zone, Kumaun Himalaya (U.P.). Proceedings of the Second National Symposium on Mass-spectrometry.pp.P56/1-6, 1981.

B.K.Pandey, V.P.Singh, R.P.Singh and V.B.Bhanot.

12. Geochronology of the granitic and gneissic rocks from Munsiari, Namik and Tawaghat areas of the Central Crystalline Zone, Kumaun Himalaya. Proceedings of the Third National Symposium on Mass-spectrometry, pp. E-8/1-5, 1985.

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13. Rb-Sr Isotopic studies for the Granitic Rocks of Amritpur Areas of the Outer Lesser Himalaya of Kumaun,U.P.Indian Jour.Earth Sciences,Vol. 13(23),189-196,1986.

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14. **Rb-Sr Ages of the Gneissic Rocks of Rihee-Gangi, Bhatwari, Hanumanchatti and Naitwar areas of the Central Crystalline Zone of Kumaun Himalaya (U.P.).Indian Jour.Earth Sciences,Vol. 13(23), 197-208, 1986.**
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15. **Rb-Sr geochronological studies of the granitic and gneissic rocks of Almora area of the Almora Crystallines, Kumaun Himalaya.Fourth Nat.Sym.Mass-Spectrometry held in I.I.Sc.,Bangalore from Jan. 4-6,1988. Preprint Vol. EPS-1/1-4.**
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16. **Rb-Sr Isotopic studies for granitic and gneissic rocks of Vaikrita Group, Kumaun Himalaya,Fif. Nat. Sym. Mass-Spectrometry held in P.R.L., Ahmedabad from Jan. 7-9, 1991. Preprint Vol. EPS-14/1-3.**
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17. **Rb-Sr Isotopic and Geochronological studies of some gneissic rocks of Koksar area of Central Crystallines, Himachal Himalaya,India. Fif. Nat. Sym. Mass-Spectrometry held in P.R.L., Ahmedabad from Jan. 7-9, 1991. Preprint Vol. EPS-17/1-3.**
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18. **Reconnaissance of Rb-Sr ages of Kalaktang granite,Bomdila Group,Arunachal Himalaya,NEFA. 6th National Symposium on Mass-spectrometry,(ISMAS), Dehradun,Oct.11-13,1993, Pre-print vol.pp.EPS-26; 495-497.**
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19. **Rb-Sr Isotopic age of LeoPargil Tourmaline Leucogranite, Spiti Valley, Himachal Himalaya. 6th National Symposium on Mass-spectrometry,(ISMAS), Dehradun,Oct.11-13,1993,Pre-print vol.pp.EPS-8,438-441.**
S.K.Kwatra, V.P.Singh, Ramesh K.Kakar and V.B.Bhanot.

20. **Whole rock Rb-Sr age of granitic rocks of Khadrala area, District Shimla, Himachal Pradesh,India. 6th National Symposium on Mass-spectrometry, (ISMAS), Dehradun,Oct.11- 13,1993,Pre-print vol.pp.EPS-15,460-463.**

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21. **Geochemical and Rb-Sr isotopic study of the granitic rocks from Khadrala area,Himachal Pradesh. Bulletin of the I.G.A., 29(1,2);67-75, June-December,1996,Chandigarh.**
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22. **Geochemistry and Rb-Sr chronology of Baragaon Gneisses, Himachal Himalaya,India. First Convention of Mineralogical Society of India and National Seminar Nov. 27-28, 1998 held at Department of Studies in Geology, Karnatak University.**

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23. **Geochemical and Geochronological characteristics of the Early Paleozoic granitoids from Satlej-Baspa Valleys, Himachal Himalaya. Gondwana Research Group, Memoir 6,pp.145-158.Geodynamics of the NW Himalaya,1999. Gondwana Research Group, Japan.**
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26. **Rb-Sr Isotopic and Geochronological Studies of the granitic rocks of Dalhousie area, Himachal Pradesh. ISMAS-SJS-2003,612-616.**
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27. **Petrochemistry and Rb-Sr isotopic study of Bandal granites,District Kulu,Himachal Pradesh. 11th ISMAS workshop on Mass-Spectrometry-2004,Shimla.RS-8,284-288**
Ashok K.Kansal, Naval Kishore, V.P.Singh,Anupam Kumar, Naresh K. Sharma and Bimal Rai

28. **Geology and Geochronology of Bandal granitoids, district Kulu, Himachal Pradesh,India. Himalaya; (Geological Aspects) Vol.2 (Ed. P.S.Saklani) Satish Serial Publishing House,Delhi,2005 pp99-104.**
Naval Kishore, V.P.Singh, Ashok K.Kansal,Anupam Kumar,Naresh K.Sharma and Bimal Rai

29. **Rb-Sr geochronological and geochemical study of the gneissic rocks of Wangtu Gneissic Complex,Himachal Pradesh. 10th ISMAS Triennial International Symposium on Mass-Spectrometry-2006,Kerala. EPS-17,113-114.**
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30. Rb-Sr Geochronological Studies of the Granitic and Gneissic Rocks of Chhotadara area, Himachal Himalaya. 11th ISMAS Triennial International Conference on Mass-Spectrometry-2009,Hyderabad. EPS-21, 318-321.

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31. Vibrational spectra and density functional theory calculations of carbamazepine
DAE-National Laser Symposium 8-12 January, 2014
Manipal University, Manipal
Ritika Sachdeva, Prabhjot Kaur, V.P. Singh, G.S.S. Saini

32. Vibrational spectra and density functional theory calculations of glibenclamide
National Conference on Emerging Horizons in Science and Technology Jan 17-18, 2014 Sri Guru Granth Sahib World University Fatehgarh Sahib (Punjab).
Ritika Sachdeva, Prabhjot Kaur, V.P. Singh, G.S.S. Saini

33. Density functional theory calculations of levocetrizine
8th Chandigarh Science Congress Feb 26-28, 2014, Panjab University, Chandigarh. ***Ritika Sachdeva, Prabhjot Kaur, V.P. Singh, G.S.S. Saini***

34. Molecular structure and spectral investigations of levocetrizine drug
Multidisciplinary National Conference Science Colloquium Emerging Trends in Basic and Applied Sciences
March 6-7, 2014, DAV College Jalandhar.
Ritika Sachdeva, Prabhjot Kaur, V.P. Singh, G.S.S. Saini