

**DR. SATYAJEET SINGH THAKUR**

**WIHG, DEHRADUN, INDIA**

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Researchgate link:

[https://www.researchgate.net/profile/Satyajeet\\_Thakur?ev=hdr\\_xprf&\\_sg=2uva1DbWX3NnAxpPjstqesZjDYuUp069E7tuCax0E4ze9W\\_QBpzL4lW9LaJupKT1dhy\\_hFBcbS0TpnmkWrVthDp9](https://www.researchgate.net/profile/Satyajeet_Thakur?ev=hdr_xprf&_sg=2uva1DbWX3NnAxpPjstqesZjDYuUp069E7tuCax0E4ze9W_QBpzL4lW9LaJupKT1dhy_hFBcbS0TpnmkWrVthDp9)

**RESEARCH GROUP:**

PETROLOGY AND GEOCHEMISTRY GROUP

**FIELD OF SPECIALIZATION:**

METAMORPHIC GEOLOGY

**EDUCATION:**

Ph.D. 2007 (Metamorphic Geology) Indian Institute of Technology Bombay, Powai, Mumbai

M.Sc. 1996 (Geology) Pt. Ravishankar Shukla University, Raipur

B.Sc. 1994 (Chemistry, Botany, Geology) Pt. Ravishankar Shukla University, Raipur

**PROFESSIONAL EXPERIENCE:**

- Scientist 'E', WIHG, Dehra Dun, from 2022 to present.
- Scientist 'D', WIHG, Dehra Dun, from 2017 to 2021.
- Scientist 'C', WIHG, Dehra Dun, from 2013 to 2017.
- Scientist 'B', Wadia Institute of Himalayan Geology (WIHG), Dehra Dun, from 2008 to 2013.

**VISITING POSITIONS:**

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**TEACHING EXPERIENCE:**

Taught mineralogy, optical mineralogy and metamorphic geology to M.Sc. students of Department of Geology, Kumaun University, Nainital (Uttarakhand) during years the 2015, 2016 and 2018 under the UGC-CAS program. Practical classes and practical exams were also conducted.

**SERVICES:****a. Supervision/Guidance to Ph.D. Students:**

Supervising one Ph.D. student

**b. Training:**

- Supervised more than 25 M.Sc./M.Tech/B.Tech students from different universities/institutes of the country for their M.Sc. dissertation works under the Summer Training Program at WIHG.
- Indian Forest Service (IFS) probationers at *Indira Gandhi National Forest Academy* (IGNFA), Dehradun were guided and supervised during the geological field excursion (2019) in connection to their course work training program
- Train Research scholars/Research Associates/Scientists the basic operation and handling of the EPMA instrument for generation of EPMA data
- Train Research scholars/Research Associates/Scientists the handling of Carbon Coating Machine to coat (by carbon) the rock thin sections.

**c. Teaching:**

- M.Sc. students of Department of Geology, Kumaon University, Nainital, Uttarakhand were taught mineralogy, optical mineralogy and metamorphic geology subjects (including practical classes) during the years 2015, 2016 and 2018 under the UGC-CAS program.
- Delivered a series of lectures to Indian Forest Service (IFS) Probationers on geology and mineralogy subjects and conducted practical classes as well as exams at *Indira Gandhi National Forest Academy (IGNFA)*, Dehradun in connection to their training course program (2018-2019).
- Taking metamorphic petrology classes as a Ph.D. course work to deferent batches of ACSIR students since year 2021 at Wadia Institute of Himalayan Geology, Dehradun.

**d. Membership:**

Life time membership of Himalayan Geology Journal

**e. Editorial Board:**

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**f. International/National Seminars/Workshop:**

The Indian and foreign delegates who participated the 30<sup>th</sup> Himalayan-Tibet-Karakorum (HKT) workshop held at Wadia Institute of Himalayan Geology, Dehradun during October 05-08, 2015 were guided during a geological field excursion along the Rishikesh–Joshimath– Malari transect, Garhwal Himalaya

**g. External Research Fund received & Project Handled:**

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**h. Member of important Committees:**

- Member of Senior Technical Evaluation and Purchase Committee (2019-21), WIHG, Dehradun

**AWARDS/FELLOWSHIPS/HONORS/MEMORIAL LECTURES:**

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**a. Awards/Medals/Prizes:**

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**b. Fellowships:**

Junior Research Fellowship (JRF), CSIR, New Delhi (2000).

**c. Memorial Lectures:**

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**d. Recognition/Honors:**

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**COUNTRIES VISITED:**

**France** (received one week factory training in operation of EPMA instrument at CAMECA Company, Paris).

**NATIONAL/INTERNATIONAL (outside CSIR-NGRI) COLLABORATION:**

**Prof. S.C. Patel**, Department of Earth Sciences, Indian Institute of Technology Bombay, Powai, Mumbai

**Inside WIHG Collaborator:**

Dr. A.K. Singh

Dr. Paramjeet Singh

**PATENT:**

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**SCHOLARSHIPS AWARDED:**

CSIR Junior Research fellowship (JRF) and lecturer-ship, 2000.

**PH.D. ADVISOR:**

**Prof. S.C. Patel**, Department of Earth Sciences, Indian Institute of Technology Bombay, Powai, Mumbai

**LIST OF PUBLICATIONS:****(a) SCI Papers:**

1. *Thakur, S.S., Patel, S.C., Chaurasia, C., Gour, N.* (2022) The fate of pyroxenes in mafic xenoliths from the Kinnaur Kailash Granite, Sutlej Valley, NW Himalaya: Effect of retrograde hydration and insights on the rare occurrence of high-grade metamorphic rocks in the Himalayan orogen. *Journal of Petrology*, v.63, pp.1–17.
2. *Thakur, S.S.* (2022) P–T–X (Fe–Mg) relations of cummingtonite-sillimanite-cordierite-quartz-H<sub>2</sub>O equilibrium: implications on evolution of metamorphic rocks. *Journal of Geological Society of India*, v.98, pp.976–980.
3. *Singh, A.K., Dutt, A., Nayak, B., Bikramaditya, R.K., Oinam, G., Thakur, S.S., Srivastava, R., Khogenkumar, S., Kumar, M.* (2022) New Constraints on the tectono-magmatic evolution of the Tidding-Mayodia Ophiolites, Eastern Himalaya, northeast India. *Geological Journal*, v.57 (2), pp.514–536.
4. *Singh, A.K., Khogenkumar, S., Kumar, S., Singh, L.R., Thakur, S.S.* (2021) New Insights into the petrogenesis of depleted mantle dunite from the Central part of Nagaland-Manipur Ophiolites, Northeast India, *Current Science*, v. 120(8), pp.1381 – 1388.

5. Chaurasia, C., Madhavan, K., Thakur, S.S., Patel, S.C., Samal, A.K., Nema, S., Dixit, P.K. (2020) Occurrence and Stability of Allanite and Monazite in Greater Himalayan Sequence, Dhauliganga valley, Garhwal Himalaya. *Journal of Geological Society of India*, v. 96, pp.557–564.
6. Thakur, S.S., Madhavan, K., Patel, S.C., Rameshwar Rao, D., Singh, A.K., Pandey, S., Nandini, P. (2018) Yttrium-zoning in garnet and stability of allanite in metapelites from the Main Central Thrust Zone and adjacent higher Himalayan crystallines along the Alaknanda Valley, NW Himalaya. *Lithos*, v.320-321, pp.1–19.
7. Thakur, S.S., Singh, A.K., Rameshwar Rao, D., Sharma, R., Pandey, S., Ao, A. (2018) Garnetiferous metamorphic rocks in Jaspa granite, Himachal Pradesh, India: implication of Tethys Himalayan metamorphism and tectonics. *Current Science*, v. 115 (2), pp.1576–1583.
8. Shaikh, A.M., Kumar, S.P., Patel, S.C., Thakur, S.S., Ravi, S., Behera, D. (2018) The P3 kimberlite and P4 lamproite, Wajrakarur kimberlite field, India: mineralogy, and major and minor element compositions of olivines as records of their phenocrystic vs xenocrystic origin. *Mineralogy and Petrology*, doi.org/10.1007/s00710-018-0562-2.
9. Rao, D.R., Thakur, S.S. (2017) Geochemistry of the mafic xenoliths from the Kinnaur Kailash Granite, Baspa valley, Himachal Pradesh, India. *Journal of Geological Society of India*, v. 89, pp. 711–788.
10. Wadhawan, M., Hazarika, D., Paul, A., Kumar, N., Thakur, S.S., Gupta, V. (2017) Crustal thickness and Poisson's ratio variation in the Satluj valley, Northwest Himalaya. *Himalayan Geology*, v. 38(1), pp.38–48.
11. Singh, A.K., Nayak, R., Khogenkumar, S., Subramanyum, K.S.V., Thakur, S.S., Singh, R.K.B., Satyanarayanan, M. (2017) Genesis and tectonic implications of cumulate pyroxenites and tectonite peridotites from the Nagaland-Manipur ophiolites, Northeast India: Constraints from mineralogical and geochemical characteristics. *Geological Journal*, v. 52, pp.415–436.
12. Singh, A.K., Khogenkumar, S., Romendro Singh, S., Bikramaditya, R.K., Mangi Khuman, Ch., Thakur S.S. (2016) Evidence of Mid-ocean ridge and shallow subduction forearc magmatism in the Nagaland-Manipur ophiolites, northeast India: constraints from mineralogy and geochemistry of gabbros and associated mafic dykes. *Chemie der Erde*, v. 76, pp.605–620. DOI: 10.1016/j.chemer.2016.09.002.
13. Bhakuni, S.S., Sen, K., Thakur, S.S., Rawat, G., Mukherjee, P.K., Tiwari, M. (2015) Excursion Guide: Rishikesh-Joshimath-Malari Transect (Garhwal Himalaya), 30th Himalaya-Karakoram-Tibet Workshop, Himalayan Geology (Special Publication no. 4), pp.1–48.
14. Thakur, S.S., Patel, S.C., Singh, A.K. (2015) A P–T pseudosection modelling approach to understand metamorphic evolution of the Main Central Thrust Zone in the Alaknanda valley, NW

- Himalaya. *Contribution to Mineralogy and Petrology*, v. 170 (2). DOI 10.1007/s00410-015-1159-y.
15. Thakur, S.S. (2014) Retrograde corona texture in pre-Himalayan metamorphic mafic xenoliths, Sutlej valley, NW Himalaya: Implication on rare occurrence of high-grade rocks in the Himalaya. *Journal of Asian Earth Sciences*, v.88, pp.41–49.
  16. Thakur, S.S., Patel, S.C. (2012) Mafic and Pelitic xenoliths in the Kinnaur Kailash Granite, Baspa river valley, NW Himalaya: Evidence of pre-Himalayan granulite metamorphism followed by cooling event, *Journal of Asian Earth Sciences*, v. 56, pp.105–117.
  17. Nandini, P., Thakur, S.S. (2011) Metamorphic Evolution of Lesser Himalayan Crystalline Sequence (LHCS), Siyom Valley, NE Himalaya, India. *Journal of Asian Earth Sciences*, v. 40, pp.1089–1100.
  18. Patel, S.C., Ravi, S., Anilkumar, Y., Naik, A., Thakur, S.S., Pati, J.K., Nayak, S.S. (2009) Mafic xenoliths in Proterozoic kimberlites from Eastern Dharwar Craton, India: mineralogy and P–T regime. *Journal of Asian Earth Sciences*, v.34, pp.336–346.
  19. Thakur, S.S., Tripathi, K. (2008) Regional metamorphism in the Haimanta Group of rocks, Sutlej river valley, NW Himalaya, India. *Current Science*, v. 95, pp.104–109.
  20. Thakur, S.S., Patel, S.C. (2007) Low Pressure Granulite Facies Sukma Supracrustal Rocks, near Nagaras, Southern Bastar Craton. *Journal of Geological Society of India*, v. 69, pp.75–79.
  21. Patel, S.C., Sunderaraman, S., Dey, R., Thakur, S.S., Kumar, M. (2007) Deformation Pattern in a Proterozoic Low Pressure Metamorphic Belt near Ramanujganj, Western Chhotanagpur Terrane. *Journal of Geological Society of India*, v. 70, pp.207–216.
  22. Patel, S.C., Ravi, S., Thakur, S.S., Rao, T.K., Subbarao, K.V. (2006) Eclogite Xenoliths from Wajrakarur Kimberlites, Southern India. *Mineralogy and Petrology*, v. 88, pp.363–380.
  23. Thakur, S.S., Patel, S.C. Dasgupta, S. (2006) Structural pattern in Sukma Supracrustal rocks near Nagaras, Southern Bastar Craton. *Journal of Geological Society of India*, v. 68, pp.769–773.

**(b) Non-SCI Articles:**

1. Sundarlingam, K., Waele, B.D., Thirukumaran, V., Thakur, S.S., Tanushree, M., Biswal, T.K. (2012) Deformation, metamorphism and geochronology of the palaeoproterozoic Salem-Namakkal fold thrust belt and implication for the Gondwanaland continental assembly. *International journal of Geology, Earth and Environmental Sciences*, v.2, pp.266–283.
2. Patel, S.C., Imam, N., Anilkumar, Y., Thakur, S.S. (2010) Observations on tectonic evolution of the Southern Granulite Terrain, India. *Deep Continental Studies–DST NEWS*, pp. 9–14 (August, 2010).

3. Thakur, S.S., Patel, S.C. (2007) Deformation and low pressure metamorphism of Sukma supracrustal rocks near Nagaras, southern Bastar Craton. *Gondwana Geological Magazine*, v. 10, pp.27–32.

**(c) Chapter in Books:**

1. Singh P., Ao A., Thakur S.S., Rana, S., Sharma R., Singh A.K., Singhal S. (2021). *Geology, Structural and Metamorphic studies along the Mandi-Kullu-Manali-Rohtang section of Himachal Pradesh, NW-India*. S. Mukherjee (ed.), *Structural Geology and Tectonics Field Guidebook – volume 1*, Springer Geology, [http://doi.org/10.1007/978-3-030-60143-0\\_15](http://doi.org/10.1007/978-3-030-60143-0_15).
2. Singh, P., Sethy, P. C., Rastogy, H., Singh, M. R., Singh, A.K., Thakur, A.K., Singhal, S. (2021) *Geological field observations along the Pandoh Syncline: the Mandi-kataula-Bajaura section of Himachal Pradesh, NW-India*. Springer book chapter (Accepted).

**(d) Books-authored/Edited volume:**

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**(e) Abstract volume:**

1. Chaurasia, C. Thakur, S.S., Madhavan, K., Patel, S.C., Samal, A. (2021). REE Geochemistry of Monazite from Metapelites in the Greater Himalayan Sequence, Dhauliganga valley, Garhwal Himalaya, AGU Fall Meeting, New Orleans, LA, USA, Abstracts 2021, T45C-0247.
2. Thakur, S.S., Singh, A.K., Rao, D.R., Sharma, R., Ao, A., Pandey, S., Nandini, P. (2018). Occurrence of garnetiferous metamorphic rocks of Tethyan Himalayan Sequence around Jaspa granite pluton, Lahaul NW Himalaya: implication of Himalayan metamorphism and tectonics. National Seminar on “Earth System Science with special reference to Himalaya: advance and challenges” held on May 16-18, 2018 at Wadia Institute of Himalayan Geology, Dehra Dun.
3. Thakur, S.S., Madhavan, K., Patel, S.C., Rao, D.R., Singh, A.K., Pandey, S., Nandini, P. (2018) Yttrium-zoning in garnet vis-à-vis the relative stability of monazite and allanite in metapelites from the MCTZ and HHCS of the Alaknanda valley, NW Himalaya. National Seminar on “Earth System Science with special reference to Himalaya: advance and challenges” held on May 16-18, 2018 at Wadia Institute of Himalayan Geology, Dehra Dun.
4. Rao Rameshwar D., Thakur S.S. (2016) Petrogenesis of the mafic xenoliths and pelitic enclaves from the Kinnaur Kailash Granite (KKG), Baspa valley, Himachal Pradesh, India. National Seminar on ‘Advance in Geosciences’ held at Sagar University, Madhya Pradesh, India on August 5-6, 2016.

5. Krishnakanta Singh, A., Bikramaditya Singh, R.K., Thakur, S.S., Khogenkumar, S. (2015) Tectonic and genetic implications of the mantle peridotites from the Tethyan ophiolites of the Eastern Himalaya, Northeast India.
6. Patel, S.C., Ravi, S., Thakur, S.S. (2012). MARID-type xenoliths in Proterozoic kimberlites from southern India: implications on mantle metasomatism. Extended abstract-10-IKC-37 (pp. 1 – 5), 10th International Kimberlite Conference, Bangalore.
7. Sahu, N., Gupta, T., Patel, S.C., Khuntia, D.B.K., Thakur, S.S., Das, S.K. (2012) Petrology of Lamproites from the Naupada Lamproite field, Bastar Craton, India. Abstract-10-IKC-32 (pp. 1 – 5), 10th International Kimberlite Conference, Bangalore.
8. Anilkumar, Y., Patel, S.C., Thakur, S.S. (2008) Clockwise Pressure–Temperature Path from Relict–Kyanite–Bearing Mg–Al Granulite from Karur, Madurai Block, Southern India. International Association for Gondwana Research Conference Series 5, pp. 177.
9. Patel, S.C., Ravi, S., Thakur, S.S., Anilkumar, Y., Nayak, S.S., Rama Rao, G. (2008) Proterozoic Mantle Geotherm from Mafic Xenoliths in Kimberlites of Eastern Dharwar Craton, India. International Association for Gondwana Research Conference Series 5, pp. 190.
10. Anilkumar, Y., Patel, S.C., Thakur, S.S. (2006) Sapphirine and relict–kyanite–bearing Mg–Al granulite from Karur, Madurai block, Southern India. National seminar on “Origin and evolution of the Deep Continental Crust”, pp. 24–25 (abstract volume).

**(f) Reports/Other Documents: Nil**

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**(g) Articles in Proceeding Volumes:**

1. Thakur, S.S., Patel, S.C., Dasgupta, S. (2005) Metamorphic history of Mg–Al rich rocks of Sukma supracrustal suite around Guttaguda, southern Bastar craton. International conference on Precambrian Continental growth and Tectonism (PCGT), Proceedings Bundelkhand University, Jhansi, India, pp 207–209.
2. Ravi, R.S.K., Patel, S.C., Thakur, S.S., Raja, E. (2005) Decompression–cooling path and fluid inclusion characteristics of pelitic granulite around Surpagla, southern Rajasthan. International conference on Precambrian Continental growth and Tectonism (PCGT), Proceedings Bundelkhand University, Jhansi, India, pp 216–218.
3. Patel, S.C., Ravi, S., Rao, T.K., Thakur, S.S., Subbarao, K.V. (2005) Xenoliths of orthopyroxene eclogite and celsian corona bearing kyanite eclogite in Kimberlite from south India. 7th International Eclogite Conference at Karl Franzens University of Graz, Austria, pp. 125 (Proceedings).



