

**NAME: Dr Barun K Mukherjee, PhD, PDF (JSPS-Japan)**

**WIHG, DEHRADUN, INDIA**



**Google Scholar Page:**

Link: <https://scholar.google.co.in/citations?user=3PaJCFgAAAAJ&hl=en>

**RESEARCH GROUP:** Petrology and geochemistry

**FIELD OF SPECIALIZATION:**

Mineralogy, Mineral Chemistry, recycled volatiles and Mineral Isotopes (Acc. Phase)

**EDUCATION:**

- Ph.D (Geology) 2000-2003, Awarded, Wadia Institute DDN, & HNBGU, Srinagar. “Metamorphic and Fluid Evolution of ultra-high pressure rocks from Tso-Morari Crystalline Complex, Indus suture zone, Ladakh (India)”
- Incomplete Phd work 1996-1999, BHU, Varanasi, Genesis of Magnesite deposit in GDF formation, Pithoragarh district, Uttarakhand.

**PROFESSIONAL EXPERIENCE:**

Scientist `E` Wadia Institute of Himalayan Geology, Dehra Dun (2019)

Scientist `D` Wadia Institute of Himalayan Geology, Dehra Dun (2015)

Scientist `C` Wadia Institute of Himalayan Geology, Dehra Dun (2013)

Scientist `B` Wadia Institute of Himalayan Geology, Dehra Dun (2007)

JSPS PDF-2 Yrs, Tokyo Institute of Technology, Tokyo Japan (2004-2006)

**VISITING POSITIONS:**

2 Years JSPS Post Doctorate Fellow at Department of Earth & Planetary Sciences Tokyo Institute of Technology, Tokyo Japan.

**TEACHING EXPERIENCE:**

Honorary Teaching Service to School Students (underprivileged)

**SERVICES:**

## a. Supervision/Guidance to Ph.D. Students:

1. 2017- Tania Saha Growth of Accessory minerals in Gneiss Dome, Indus Suture Zone, NW Himalaya, India: tectonic implication. (Pursuing)
2. 2016—Manas M. Petrological evolution of Indus Suture Zone rocks in Western Ladakh, Himalaya, India. (Pursuing)
3. 2015-- Koushick Sen, NET, SRF (Barthrust, UK fellow Student) Tectonic evolution of Zildat Ophiolitic Melange, NW Himalaya, India. (Completed)
4. 2014-- Souvik Das, NET, (Berkner Fellow, AGU) Nature and evolution of mantle section in the Nidar Ophiolite Suite, Ladakh, India (WIHG-UPES DDN)(Completed)

## b. Supervision/Guidance to Master Dissertation:

1. 2020- Amit, Mysore University: Study of zircons in continental quartzofeldspathic rocks of subduction complex, Himalaya: special emphasis on zircon surface topography and internal structure. (Pursuing)
2. 2019-Sukalpa Chatterjee, IIT Roorkee `Study of zircon in UHP grade rock Ladakh Himalaya, Morphology, Internal structure and Growth` (Completed)
3. 2016- Gokul Anand, Mysore University ` Petrography and Fluid Inclusion study in ISZ rock, Ladakh Himalaya.(Completed)

**b. Training:**

NA

**c. Teaching:**

Teaching to High School Students

**d. Membership:**

1. Life Member: Indian Geological Congress, Roorkee.
2. Fellow Member: Japan Society of Promotional Science, Japan.
3. Life Member: Himalayan geology Society, Dehradun

**e. Editorial Board:**

Guest Editor: Geological Society of London, Cambridge Press sp 412

Guest Editor: International Journal of Earth Sciences, Springer, v 102.

Member Editor: 2 Wadia Institute Golden Jubilee Compendium 2018 & 2019

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

Co-convener & Chairman: EGU, General Assembly 2012 Vienna (Austria) Session TS 4.5

Co-convener: EGU, General Assembly 2013 Vienna (Austria) Session TS/ GM/TT

Core Committee Member: 2015 Himalayan Karakoram Tibet workshop, India.

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

NA

**h. Member of important Committees:**

Member of Several Internal Committees.

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

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

Wadia Institute best Paper Award 2007 & 2009

Second best paper award during 13th convention, IIGC- Silver Jubilee Celebrations, 2003.

**b. Fellowships:**

2 yrs JSPS Post Doc Fellowship.

**c. Memorial Lectures:**

NA

**d. Recognition/Honors:**

Appreciation Letter Received from Govt. of India, MINISTRY OF SCIENCE & TECNOLOGY on “First Discovery of UHP Mineral Coesite from Himalaya”, 2001.

**COUNTRIES VISITED:**

1. Ascona , SWITZERLAND
2. Aussios, FRANCE
3. Tokyo, JAPAN
4. Cambridge, UK
5. Vienna , AUSTRIA

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

Texas Arlington, SAC, Ahmedabad, Calcutta University.

**Inside WIHG Collaborator:**

Geophysics & Geochemistry Group

**PATENT**

NA

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**SCHOLARSHIPS AWARDED, GATE**

Scholarship Awarded from Japan Society for Promotion of Science.

## PH.D. ADVISOR:

PhD Advisor to 4 PhD students.

## LIST OF PUBLICATIONS

Scientific Articles: 25+3/ Abstracts: 45-(not included)

Citation: 630 / Cumulative Impact Factor: 49 / i 10 index: 20

### (a) SCI Papers

Communicated/Revision:

1. Non silicate needles and metals in serpentinitised peridotite from western Ladakh ,India Evidence of deep Earth origin. **Mineralogical Magazine**.
2. Tania Saha, Barun K. Mukherjee: Tracing remnant of deeply subducted continental crust at TMG, Himalaya, In-sight from Zircon Study. **Geological Magazine**.
3. Vimal Kumar, S. S. Panda, B.P. Naunia, Barun K Mukherjee and Ram Ji Nigama; Geochemical investigation and scientific conservation of exterior surface of Shri Kedarnath temple, Uttarakhand, India. **Journal of Cultural Heritage**.

Published:

1. Souvik Das, A Basu, Barun K Mukherjee, Franco Marcantonio, Koushick Sen, Satadru Bhattacharya and Robert T Gregory: Origin of dunitite-hosted carbonate veins: Sr, O, C and H isotopes and Raman spectroscopic evidence for post-emplacement incorporation of Indian crustal Sr into the Indus ophiolite. **Chemical Geology** (2020) in press.
2. Koushick Sen (Jr) Barun K Mukherjee, Manas M, Koushik Sen , S Mukherjee Two-stage exhumation of Zildat Ophiolitic Melange rocks, NW Himalaya, India, **Himalayan Geology** (2019) 40 (2).
3. Souvik. Das, A R Basu, Barun K Mukherjee; In situ peridotitic diamond in Indus ophiolite sourced from hydrocarbon fluids in the mantle transition zone, **Geology** (2017) 45 (8): 755-758.
4. A Bhattacharya, Santanu Bose, Barun K Mukherjee, Manish Mamtani, Deepak C Srivastava (2016) Status of research in Structural geology, Indian Scene in last 5 yeras ; **Proc Indian Natn Sci Acad** 82 No. 3 July Spl Issue 2016 pp. 435-443

5. Barun K Mukherjee, natural CO<sub>2</sub> sequestration from serpentinised dunite from Nidar ultramafic, Ladakh Himalaya, (in review). **Geological Magazine**
6. Souvik Das, Barun K Mukherjee, Asish R Basu, Koushick Sen (Jr), (2015) Relict mineral phases sourced from Mantle Transition Zone, in the Nidar ultramafic, Himalaya **Geological Society of London Sp.** DOI: 10.1144/SP412.12.
7. S. Mukherjee, R. Carosi, P. van der Beek, Barun K Mukherjee, D. M. Robinson, (2015), Editorial on Tectonics of the Himalaya in **Geological Society of London (Sp)**. DOI: 10.1144/SP412.1 .
8. Koushik Sen, Barun K. Mukherjee, Alan S. Collins, (2014) *Reply to Comment* by Wallis et al on Interplay of deformation and magmatism in the Pangong Transpression Zone, Eastern Ladakh, India: Implications for partial melting of the Indo-Eurasian collisional arc and age of initiation of the Karakoram Fault Zone, **Journal of Structural Geology** doi.org/10.1016/j.jsg.2014.03.007.
9. Koushik Sen, Barun K. Mukherjee, Alan S. Collins, (2014) Interplay of deformation and magmatism in the Pangong Transpression Zone, Eastern Ladakh, India: Implications for partial melting of the Indo-Eurasian collisional arc and age of initiation of the Karakoram Fault Zone, (2014) **Journal of Structural Geology** 62 13-24.
10. S Mukherjee, Barun K. Mukherjee, R Theide ( 2013) editorial, Geosciences of the Himalayan-Karakoram-Tibet orogen, editorial, **International journal of Earth Sciences**, v 102, issue 7 p 1755.
11. Koushick Sen, S Das, Barun K Mukherjee, Koushik Sen; (2013) Bimodal stable-isotope signature of Zildat Ophiolitic Mélange, Indus Suture Zone, Himalaya: implications for emplacement of an ophiolitic mélange in a convergent set-up. **International journal of Earth Sciences**, v 102, issue 7, p 2032.
12. H Lelop, H C Weinberg, Barun K Mukherjee P Lacassion, P Tapponier: (2013) Comment on « Displacement along the Karakoram fault, NW Himalaya, estimated from LA-ICP-MS U–Pb dating of offset geologic markers » published by Shifeng Wang et al. paper in *EPSL*, 2012., *Earth and Planetary Science Letters* 363 242–245 **Earth Planetary Science Letter**.
13. Barun K Mukherjee, Kaushik Sen, Himanshu K Sachan Sudip Paul (2012) Exhumation history of KFZ mylonites: new constraints from microstructure, fluid inclusion and Ar-Ar analyses. In press **Lithosphere (GSA)** V 4 , 3 p 230 (Selected as a MOST READ ARTICLE may 2012)
14. Barun K. Mukherjee & Himanshu K. Sachan, (2009) Fluids in coesite bearing rock of Tso Morari Region, NW- Himalaya: evidence of entrapment during peak metamorphism and subsequent upliftment. **Geological Magazine**. V. 146, 06 p. 876-889.

15. Kaushik Sen, Barun K Mukherjee & Himanshu K Sachan (2009) Field and microstructural analysis of the Pangong Granodiorite, Ladakh (NW India): Implications for tectonics along the Karakoram Fault Zone. **Current Science**. V. 96, 08, p. 1124-1129.
16. Himanshu K. Sachan, Barun K. Mukherjee & Robert J. Bodner, (2007) Methane (CH<sub>4</sub>) in upper mantle rocks from the Indus Suture Zone, Ladakh (India): Evidence from fluid inclusion and Raman spectroscopy, **Earth & Planetary Sciences Letter**. V. 257. p. 47-59.
17. Himanshu K Sachan., Barun K. Mukherjee & Talat Ahmad, (2007) Brine –rich hydrothermal fluid circulation level of Nidar Ophiolite Sequence, Ladakh: Evidences from Fluid Inclusions, **Journal of Geological Society of India**. V.70. p.780-786.
18. Himanshu K. Sachan., Barun K. Mukherjee, Y. Ogasawara, S. Maruyama, Anand K. andey, A. Muko ,N. Yoshioka & H. Ishida, (2001) Discovery of Coesite from Indian Himalaya : Consequences on Himalayan Tectonics in **International Lithosphere Prog**, Japan. p. 124-128.
19. Talat Ahmad, Nigle Harris, Rafiq Islam, Parampal P.Khanna, Himanshu.K Sachan & Barun K. Mukherjee , (2005) Contrasting mafic magmatism in the Shyok and Indus Suture Zone Geochemical constraints, **Himalayan Geology**. v. 26. p. 34-40.
20. Himanshu K. Sachan, Barun K. Mukherjee & Talat Ahmad , (2005) Cold subduction of Indian continental crust: Evidence from Tso-Morari region, Ladakh India, **Himalayan Geology**. v. 26, p. 25-33.
21. Himanshu K. Sachan , Barun K. Mukherjee ,Y. Ogasawara & S. Maruyama, (2004) Discovery of Coesite from Indian Himalaya: Consequence for Himalayan Tectonics , **European Journal of Mineralogy**. v. 16 p. 235-240.
22. Himanshu K Sachan & Barun K. Mukherjee, (2003) Genesis of Chromite In Ophiolites From Indus Suture Zone, Ladakh India: Evidence From Mineral Chemistry of Solid Inclusions In Chromite, **Himalayan Geology**. v. 24. p. 63-74.
23. Barun K. Mukherjee, Himanshu K. Sachan, Yoshide Ogasawara, Atsumi Muko , & Nobuhiro Yoshioka, (2003) Carbonate-bearing UHPM rocks from Tso-morari region, Ladakh India : Possible Petrological Implication, **International Geology Review**. v. 45. p.49-69.
24. Himanshu K. Sachan. & Barun K. Mukherjee, (2001). Evidences of Fluid re-equilibration in Blueschist rocks from Shergol ophiolitic malange, Indus Suture zone, Ladakh, **Himalayan Geology**. v. 22. p. 127-132.

25. Barun K. Mukherjee & Himanshu K. Sachan, (2001) Discovery of Coesite from Indian Himalaya: A record of ultra –high pressure metamorphism in Indian continental crust, **Current Science**. v. 81, p. 1358-1361.

**(c) Chapter in Books**

NA

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

1. In Geological Society of London, Title "Tectonics of the Himalaya", Lyell special publication SP 412, 2015 by Soumyajit Mukherjee, Rodolfo Carosi, Peter van der Beek, Barun K Mukherjee and Delores M Robinson.
2. In International Journal of Earth Sciences, Title " Geosciences of Himalayan Karakoram Tibet" Springer V 102, 7, 2013, by Soumyajit Mukherjee, Barun K Mukherjee, Rasmus Thiede.

**(e) Abstract volume:**

Core Member in 2015 Himalayan Karakoram Tibet Volume.

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

1. Report on 'Curtain Raiser Event to the 2<sup>nd</sup> India International Science Festival 28-29 Nov 2016. (for Ministry of Science & Technology, GOI)
2. Two report compiled on the completion of 50 Glorious year of Wadia Institute 1st "Inception to Golden Jubilee" June 2017/ 2<sup>nd</sup> "Reminiscence of Golden Days" June 2018.

**(g) Articles in Proceeding Volumes**

R Basu, S Das, BK Mukherjee, S Bose - Shocked Plagioclase and Iron Oxide Glass from Lonar Impact Crater (Maharashtra, India) Lunar and Planetary Science Conference, (2017) v 48, 1368.