

Brief Bio-data



Name: Jayanta Kumar Pati

Date of birth: June 4, 1961; **Place of birth:** Raurkela, Odisha

Nationality: Indian

Father's name: Late Prabodh Chandra Pati

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Residential address: Professor Jayanta K. Pati (Retd.), C/o Late P.C. Pati, Advocate, Pati Advocate Road, Madhusudan Square, Raurkela-769 011, Odisha

Mobile: +919450551686 (BSNL; Whatsapp); +919140170769 (Jio)

Marital status: Married {Wife: Dr. (Mrs.) Punitha Pati (*nee* Singh)}

Academic qualifications:

B.Sc. (Hons.)	1982	Sambalpur Univ., Odisha	1 st with Dist ⁿ .
M.Tech. (Appl. Geol.)	1985	IIT, Roorkee, U.P.	1 st Division
D.Phil.	1993	Univ. of Allahabad, U.P.	Awarded

D.Phil. Thesis in Experimental Mineralogy and Petrology: “Phase Equilibria Study of the Diopside-Albite-Nepheline Join under 28 Kbar (Dry Condition), 10 and 2 Kbar ($P_{H_2O} = P_{Total}$) and its Significance in the Genesis of Sodium-rich Mafic and Mafelsic Rocks”, University of Allahabad, 165p.

Supervisor: Prof. Alok K. Gupta, S.S. Bhatnagar Awardee, FNA, FASc, FNASc.

M.Tech. Thesis in Experimental Mineralogy and Petrology: Surface Tension Measurements of Artificial and Natural Silicate Melts, University of Roorkee (IIT, Roorkee), 37p.

Supervisor: Dr. Alok K. Gupta, Reader

Areas of Expertise: Experimental Mineralogy and Petrology, Terrestrial Impact Cratering Research, and Geology of Bundelkhand Craton

Fellowships/ Awards/ Scholarships:

1. Award of **National Scholarship** during 1982-1983 for the post-graduate studies
2. Award of **Studentship of the University Grants Commission** for the session 1984-1985 during the post-graduate studies
3. Qualified the Common Examination for Research Admission (**CERA, 1985**) for Doctoral Research in IITs
4. Qualified the **National Educational Test (Master's Level) of the University Grants Commission, 1985** (UGC' NET JRF)

5. Awarded Senior Research Fellowship (SRF) of the University Grants Commission
6. Secured All India 3rd rank in **Geologists Examination** for Geologist (Jr.) and 10th rank in **Hydrogeologist Examination** conducted by the **Union Public Service Commission, New Delhi, Govt. of India (1989 Batch)**
7. **1st in the 18th Orientation Course for Geologists**, in **Batch-A** conducted by the **Training Institute, Geological Survey of India (1993)**
8. **D.N. Agarwal Award for Excellence, Allahabad (2004)**
9. **UGC's Visiting Fellow to Sambalpur University (2008)**
10. **Barringer Family Fund (USA)'s Award** to attend LMI-IV, Vredefort Dome, **South Africa (2008)**
11. **Barringer Family Fund (USA)'s Award** to attend First Arab Impact Crater and Astrogeology Conference (**November 8-16, 2009**), **Amman, Jordan**
12. **Meteoritical Society (USA) Endowment Fund's Award** to attend the 74th Meteoritical Society Annual Meeting (**August 7-14, 2011**), **Greenwich, London, U.K.**
13. Nominated by the **Director General, Geological Survey of India** as a **Member of the National Working Group (NWG)** for the **International Geoscience Programme (IGCP) No. 599 (The Changing Early Earth)** for the period between **2011 and 2015**.
14. **Mentor, Department of Earth Sciences, IIT, Kanpur**
15. **Award for Excellence, 2016 by the University of Allahabad (26-01-2016)**
16. **Meteoritical Society (USA) Endowment Fund's Award** to attend the 79th Meteoritical Society Annual Meeting (**August 7-12, 2016**), **Berlin, Germany.**
17. **Member, Central Geological Programming Board Information System (CGPBIS), in OCBIS, Geological Survey of India, Ministry of Mines, Government of India.**
18. **Member, National FIST Committee, DST, Government of India (2020-2024).**
19. **Fellow, Indian Social Science Academy (LF/2382/658/2021)**
20. **Award for Excellence, 2022 by the University of Allahabad (08-08-2022)**
21. **Nominated as Guide for the Science Academies (IAS/INSA/NASI) Summer Research Fellowship Program for Students and Teachers, 2022 (16-11-2022)**
22. **Society of Geoscientists and Allied Technologists Award of Excellence, 2022 (18-12-2022)**

Visits Abroad:

1. **Yokohama National University, Yokohama, Japan** (November 10-12 and 16-18, **2004**) and **Kochi University, Kochi, Japan** (November 12-16, **2004**) and delivered an oral presentation
2. **University of Witwatersrand, Johannesburg, South Africa** (October 14-24, **2005**) and studied Vredefort and Tswaing Impact Structures
3. **Large Meteoritic Impact-IV-2008 (Vredefort Dome, South Africa; August 16-23, 2008)** and delivered an oral presentation and visited Vredefort Impact Structure
4. **72nd Meteoritical Society Annual Meeting, Nancy, France** and attended Pre-Conference Field Trip to **Rochechouart impact structure, France** (July 9-19, **2009**)
5. **Leibniz Institute, Humboldt University, Berlin, Germany** as a Visiting Scientist (July 19-29, **2009**)
6. Attend the **First Arab Impact Crater and Astrogeology Conference** (November 8-16, **2009**), **Amman, Jordan** on invitation, delivered an Invited talk and visited Waqf as Suwan Impact Structure
7. Attend the **SEPM Field Conference on Microbial Mats in Siliciclastic Deposits**

- (Archean to Today), delivered a talk, **Denver, USA** (May 19-30, **2010**) and visited Dinosaur Ridge, Jefferson County, Colorado
8. Attend the 74th Annual Meteoritical Society Meeting, **Greenwich, London, U.K.** and delivered an oral presentation (August 7-14, **2011**)
 9. Attend and delivered an Invited talk, Chaired a Session on Impact Cratering Research at the Second Arab Impact Crater and Astrogeology Conference and Field Visit (November 13-20, **2011**), **Casablanca, Morocco**
 10. Attended the 79th Meteoritical Society Annual Meeting, **Berlin, Germany** and Pre-Conference Field Trip to **Ries and Steinheim impact structures, Germany** (**August 12, 2016**), Chaired a Session of the 79th Meteoritical Society Annual Meeting and delivered an oral presentation
 11. Carried out field work in Gombak Selangor Quartz Ridge, delivered a keynote address (“**Konferens Tapak Warisan Negeri Selangor Kearah Pengiktirafan Dunia**” and participated in panel discussion on invitation from **Department of National Heritage, Govt. of Malaysia, Kuala Lumpur** (November 11 and 17, **2018**).

On-going Collaborative Projects (International):

1. **Dr. Guillaume Avice**, Instit de physique du globe de Paris, 1, rue Jussieu, 75005, Paris, **France**.
2. **Prof. W. Uwe Reimold**, Institute of Geosciences, Universidade de Brasília, CEP70910-900, Brasília, DF, **Brazil**.
3. **Prof. C. Koeberl**, Department of Lithospheric Research, University of Vienna, Althanstrasse 14, A-1090 Vienna, **Austria**
4. **Dr. Timmons Erickson**, Research Scientist, EBSD specialist, Jacobs - JETS contract, Astromaterials Research and Exploration Science (ARES) Division, *Mail Code XI3, Building 31-154*, **NASA Johnson Space Center**, 2101 NASA Parkway, Houston, TX 77058, **USA**

Editorial responsibilities:

1. Reviewed manuscripts for the **Geochimica Cosmochimica Acta** (Elsevier), **Kuwait Journal of Science** (Elsevier), **Radiation Physics and Chemistry** (Elsevier), **Meteoritics and Planetary Sciences** (Wiley), **Bull. Geol. Soc. America** (Geological Society of America and Geoscience World), **Geological Magazine** (Cambridge University Press), **Journal of Geology** (University of Chicago), **Journal Asian Earth Sciences** (Elsevier), **Geoscience Frontiers** (Elsevier), **the Geomatics: Natural Hazards and Risks** (Taylor and Francis), **Journal Earth System Science** (Springer), **Current Science** (IAS; Springer), **Indian Academy of Science, Bangalore**

(IAS; Springer), **Proceedings of the Indian Science Academy (PINSA;** Springer), **Radiation Physics and Chemistry (Elsevier), Journal Geological Society of India (Springer), Journal of Geomatics (ISG, India), Journal Indian Society of Remote Sensing (Springer), Indian Journal of Geosciences (Geological Survey of India), Geological Journal (Wiley), and Geosystems and Geoenvironment (Elsevier).**

2. Editor, Society for Earth Scientists, India.

3. Editor, Malaysian Journal of Geosciences

4. Member, Editorial Board, SGAT, Odisha

PATENTS (National):

- i. Pati J.K., Singh A.K., Dwivedi M.M., Jaiswal M.K., Dwivedi S., Yadav M., Sharma A.K., and Yadav G.K. (2026).** Coloured soda-lime-silica glasses from silica sand tailings. Patent No. – 202511006126 (University of Allahabad, Prayagraj), National Research Development Corporation (NRDC), Government of India (Filed for final approval on January 24, 2025; Published on 14-08-2026).
- ii. Pati J.K., Singh A.K., Dwivedi S., Dwivedi M.M., Kumar P., Kapinder, Sarkar S., Chaprana P., SharmaA., and Mishra S. (2025).** Uranium-bearing quartz used in the synthesis of soda-lime-silica glasses having antifungal properties. (University of Allahabad, Prayagraj), National Research Development Corporation (NRDC), Government of India (Submitted on April 07, 2025; under progress).

Peer-Reviewed Research Publications (Journal Papers/Book Chapters/Books) between 2006 and 2026:

2026 (ongoing...)

- 1. Dwivedi S., Kharwar, A., Singh, A.K., Rai, A.K., Dwivedi, M.M., Sahay, S. and Pati, J.K. (2026)** Physical and Micropaleontological Characterization of the Pink Beach Sand from Komodo Island, a UNESCO Heritage Site, Indonesia, **International Journal of Geoheritage and Parks.** (Submission Id: IJGEOP-D-26-00151; 22-07-2026/Under Review-Pre-Print Available).
- 2. Dwivedi S., Pati J. K., Reimold, U. W., Singh A. K., Cooper G. R. J., Mishra D., Crósta A. P. and Prakash K. (2026).** New field and remote sensing data constrain the size and geometry of the Dhala impact structure, India. **Meteoritics & Planetary Science. 61: 1494-1527.** <https://doi.org/10.1111/maps.70162>.
- 3. Dwivedi S., Singh A. K., Pati J. K. and Dwivedi M. M. (2026).** The environment impact of 660 million footfalls during the Mahakumbh Mela-2025 based on magnetic

measurements and particle size analysis. **Geosystem and Geoenvironment (Elsevier)**. 100523. <https://doi.org/10.1016/j.geogeo.2026.100523>.

2025

4. Singh, A.K., Dwivedi, S., Anand, A., Zahbi, M., Dwivedi, M.M. and **Pati J.K. (2025)** Multicomponent diffusion during the heating of a shocked basalt and a quartz polymorph at 1400°C and variable run durations under a reducing environment- a preliminary report, **Bulletin of Society of Geoscientists and Allied Technologists (SGAT Bulletin)**, 26 (2), 1-10. (ISSN No: 0972-2173).
5. **Pati J.K.**, Singh A.K., and Dwivedi S. **2025**. A shocked lithic clast with compositionally contrasting melt domains in the impact melt breccia- a first report from the Dhala impact structure, India, **Planetary and Space Science (Elsevier)**, 266: 106180, 1-9. <https://doi.org/10.1016/j.pss.2025.106180>.
6. Dwivedi S., Yadav M., Singh A.K., Sharma A.K., Jaiswal M.K., Dwivedi M.M., Pandey K., Yadav G.K., **Pati, J.K. 2025**. Assessment of toxicity in silica sand tailings - a case study of Shankargarh area of Prayagraj, India. **Environmental Monitoring and Assessment**, v.167, No.11 (1-21). (Springer; <https://doi.org/10.1007/s10661-025-14575-5>).
7. Rout, D., **Pati, J.K.**, Mernagh, T.P., and Panigrahi, M.K. **2025**, Fluid Evolution in the Bundelkhand Granite, North Central India: Implications for Hydrothermal Activities in the Bundelkhand Craton, **Minerals (MDPI)**, 15, 579, <https://doi.org/10.3390/min15060579>.

2024

8. Singh A.K., Dwivedi S., and **Pati J.K. (2024)** Shatter cones and their identification in field, **Bulletin of Society of Geoscientists and Allied Technologists (SGAT Bulletin)**, 25(2), 54-67. (ISSN No: 0972-2173).

2023

9. Yadav, M., Yadav, G.K., Singh, A.K., Dwivedi, S., **Pati, J.K.**, Dwivedi, M.M., Pandey, K. **(2023)** Search for an eco-sustainable beneficiation technique for the Shankargarh silica sands (India) and its impact on the soda-lime-silica (SLS) glass compositions, **Arabian Journal of Geosciences (Springer)**, 16:621. <https://doi.org/10.1007/s12517-023-11735-0>.
10. Kumar, A., Dwivedi, M.M., Singh, A.K. and **Pati, J.K. (2023)** Pressure calibration of Walker-type Multi-Anvil Apparatus at room temperature, **Society of Geoscientists and Allied Technologists (SGAT) Bulletin**, 24(1), 22-30. (ISSN 0972-2173)
11. Shrivastava, A.K., Raza, M.B., Saha, L., Keewook Yi, Nasipuri, P. and **Pati, J.K. (2023)** Paleo-Mesoproterozoic rifting along the margins of Archean Bundelkhand Craton North-Central India: timing the event from U–Pb SHRIMP Zircon data and their geodynamic Implications, **Lithosphere (GeoScienceWorld)**, Volume 2022, Article ID 4111013, 25 pages, <https://doi.org/10.2113/2023/4111013>.

12. **Pati, J.K. and Singh, A.K. (2023)** Soft-sediment deformation structures in the Mesoproterozoic Kaimur Sandstone, Vindhyan Supergroup (north-central India), and their seismotectonic implications, **Journal of Paleogeography**, **12**(3), 463-486. <https://doi.org/10.1016/j.jop.2023.06.001>.
13. Mazumdar, A.C., **Pati, J.K.**, Singh, A.K., Bhagabaty, B., Phukan, S. and Borah, P. (2023) Petrography, mineral chemistry, metamorphism and Raman Spectroscopic studies of Mahadevpur fall meteorite, India. **Geological Journal (Wiley)**, **58**, 3630–3645. DOI:10.1002/gj.4776.
14. Anand, A., Singh, A.K., Mezger, K. and **Pati, J.K. (2023)** Chromium Isotopes Identify the Extraterrestrial Component in Impactites from Dhala Impact Structure, India. **Meteoritics and Planetary Science (Wiley)**, **58**(5), 722-736. DOI: 10.1111/maps.13982.
15. Sahay, S., **Pati, J.K.**, Singh, A.K., Niyogi, A., Chakravorty, M., Prakash, K. and Dwivedi, M.M. (2023) Characterization of ash samples from the Kelud (Indonesia) Volcanic Eruption of 2014 and its environmental implications. **Journal of the Geological Society of India (Springer)**, **v.99**, 487-494. (<https://doi.org/10.1007/s12594-023-2336-7>).
16. Zahbi, M., Singh, A.K., **Pati, J.K.**, Dwivedi, M.M., Dwivedi, S. and Anand, A. (2023) Experimental formation of Pele's hairs and tears at 1200°C under atmospheric pressure from natural alkali olivine basalt, **Journal Earth System Science (Springer)**, **v.132**, No. 47 (1-15). <https://doi.org/10.1007/s12040-023-02061-w>.
17. Reimold, W.U., Ferrière, L., **Pati, J.K.**, Hauser, N. and Koeberl, C. (2023) Critical comment on Aneeshkumar, V. et al., 2022, Lithos 426–427, 106,779, Meteorite impact at Ramgarh, India: Petrographic and geochemical evidence, and new geochronological insights, **Lithos** 438-439, <https://doi.org/10.1016/j.lithos.2022.106971>.

2022

18. **Pati, J.K.**, Singh, A.K. and Dwivedi, S. (2022) Shock Petrography Made Simple, **Society of Geoscientists and Allied Technologists (SGAT) Bulletin**, **23**, No.2, 40-49. (ISSN 0972-2173)
19. Dubey, S., Rai, A.K., **Pati, J.K.**, Kumar, R., Dwivedi, M.M. and Rai, A.K. (2022) Domainal Investigation of a Quartz-Fluorite Composite Using Spectroscopic Techniques. **Atoms**, **10**, 133(1-17). <https://doi.org/10.3390/atoms10040133>.
20. Raza, M. B., Rahman, H., Nasipuri, P., Saha, L., **Pati, J. K.**, Alfimova, N. A. and Champati, A.K. (2022) Phase relations and in-situ U-Th-Pb^{total} monazite geochronology of Banded Iron Formation, Bundelkhand Craton, North-Central India, and their geodynamic implications, **International Journal of Earth Sciences (GeolRundsch)**, **111**, 287–315. <https://doi.org/10.1007/s00531-021-02115-8>.
21. **Pati, J.K. (2022)** A Review on “Terrestrial Impact Structures - The TanDEM-X Atlas by Manfred Gottwald, Thomas Kenkmann and Wolf Uwe Reimold”, published in two volumes by Verlag Dr. Friedrich Pfeil, München (2020). **Journal of Earth System Science, Springer** (<https://doi.org/10.1007/s12040-022-01838-9>).
22. **Pati, J.K. (2022)** A Review on “Terrestrial Impact Structures - The TanDEM-X Atlas

by Manfred Gottwald, Thomas Kenkmann and Wolf Uwe Reimold”, published in two volumes by Verlag Dr. Friedrich Pfeil, München (2020). **Journal of Earth System Science, Springer** (<https://doi.org/10.1007/s12040-022-01838-9>).

23. Malviya, V.P., Arima, M., Verma, S.K., **Pati, J.K.**, Shareef, M., Dora, M.L., Prakash, S. and Singh, V.K. (2022) Petrology and geochemistry of the Palaeo-Mesoarchean Banded Iron Formations (BIFs) from the central Bundelkhand greenstone belts, Bundelkhand Craton, India: Source characteristics and depositional environment. **Geological Journal, Wiley**. (<http://doi.org/10.1002/gj.4471>).
24. Singh, A.K., Rajak, P., **Pati, J.K.**, Dwivedi, M.M., Pandey, K., Prakash, K., Rai, A.K., Dwivedi, S.K. (2022) Experimental synthesis of coloured soda-lime-silica (SLS) glasses using untreated silica sand of Shankargarh area (Prayagraj district, Uttar Pradesh, India) and its ramifications, **Journal of the Geological Society of India, Springer**, 98, 740-748. (<https://doi.org/10.1007/s12594-022-2062-6>).
25. Malviya, V.P., Arima, M., Verma, S.K., **Pati, J.K.**, Suzuki, K., Dora, M. L. and Singh, V.K. (2022) Geochemistry and U-Pb CHIME ages of Tonalite-Trondhjemitic-Granodioritic (TTG) gneiss from Northern Bundelkhand Craton, India: an implication for presence of Paleoarchean crust from eastern most exposed boundary of the craton. In: "**Geochemical Treasures and Petrogenetic Processes**" edited by Armstrong-Altrin, J. S., Pandarinath, K., Verma, S. K., **Springer**, 207-241. <https://doi.org/10.1007/978-981-19-4782-7-9>.
26. Rout, D., Panigrahi, M.K., Mernagh, T.P. and **Pati, J.K.** (2022) Origin of the ‘Giant Quartz Reef’ system in the Bundelkhand Craton, India: Constraints from fluid inclusion microthermometry, Raman spectroscopy and geochemical modelling. **Lithosphere**, 26 pages. <https://doi.org/10.2113/2022/3899542>.

2021

27. Singh, A.K., **Pati, J.K.**, Patil, S.K., Reimold, W.U., Rao, A.K., and Pandey, O.P. (2021) Anisotropy of magnetic susceptibility (AMS) of impact melt breccia and target rocks from the Dhala impact structure, India, in Reimold, W.U., and Koeberl, C., eds., Large Meteorite Impacts and Planetary Evolution VI: **Geological Society of America Special Paper 550**, p. 351–371, [https://doi.org/10.1130/2021.2550\(14\)](https://doi.org/10.1130/2021.2550(14)).
28. Singh, A.K., **Pati, J.K.**, Sinha, R., Reimold, W.U., Prakash, K., Nadeem, M., Dwivedi, S., Mishra, D., and Dwivedi, A.K. (2021) Characteristic landforms and geomorphic features associated with impact structures: observations at the Dhala Structure, north-central India. **Earth Surf. Process. Landforms, Wiley Intersciences**, 46, 1482–1503. DOI:10.1002/esp.5115
29. Dubey, S., Kumar, R., Rai, A.K., **Pati, J.K.**, Kiefer, J. and Rai, A.K. (2021) Rapid Analysis of chemical composition and physical properties of gemstones using LIBS and chemometric technique. **Appl. Sci. (MDPI, Switzerland)**, 11, 6156. <https://doi.org/10.3390/app11136156>.

2020

30. Rai, A.K., **Pati, J.K.**, Parigger, C.K., Dubey, S., Rai, A.K., Bhagabaty, B., Mazumdar, A.C. and Duorah, K. (2020) The plasma spectroscopic study of Dergaon Meteorite, India. **Molecules** (MDPI, Switzerland), 25, 984 (1-10); DOI:10.3390/molecules25040984.
31. Pati, J.K. and Singh, A.K. (2020) **Bundelkhand Craton: Status Report (2016-2019)**. Proc. Indian Natn. Sci. Acad., 86, No.1, pp.55-65. DOI: 10.16943/ptinsa/2020/49792
32. Rai, A. K., **Pati, J.K.** and Rai, A.K. (2020) LIBS study of geological samples coupled with chemometric methods. **Chapter-16**. In: Singh, J.P. and Thakur, S.N. (Edited) **Laser-Induced Breakdown Spectroscopy**, 2nd Edition, Elsevier, pp.369-383. DOI.org/B978-0-12-818829-3.00016-2, 00016
33. Dubey, S., Rai, A.K., Kumar, R., **Pati, J.K.** and Rai, A.K. (2020) Laser-induced breakdown spectroscopy: a potential tool for depth profiling of quartz, **Elsevier's Materials Today: Proceedings**.229-232. (ISSN: 22147853)
34. **Pati, J.K.**, and Prakash, K. (2020). Dhala Structure, India- A Paleoproterozoic Complex Impact Structure, Field Trip Guide (Pre-Congress Field Trip; Code-NR001). **36th International Geological Congress (36th IGC-2020)**, New Delhi (NCR), India, Geological Survey of India, Government of India, 32p. (www.36igc.org)

2019

35. Nasipuri, P., Saha, L., Xie, H., **Pati, J.K.**, Satyanarayanan, M., Sarkar, S., Bhandari, A. and Gaur, Y. (2019) Paleoproterozoic crustal evolution of the Bundelkhand craton, north-central India. In: van Kranendonk, M., Bennett, V. and Hoffmann, J.E. (Eds.) **Earth's Oldest Rock (2nd Edition)**, Elsevier, Amsterdam, 792-817. (Paperback ISBN: 9780444639011)
36. Nasipuri, P., Saha, L., Xie, H., **Pati, J.K.**, Satyanarayanan, M., Sarkar, S., Bhandari, A. and Gaur, Y. (2019) Paleoproterozoic crustal evolution of the Bundelkhand craton, north-central India. In: van Kranendonk, M., Bennett, V. and Hoffmann, J.E. (Eds.) **Earth's Oldest Rock (2nd Edition)**, Elsevier, Amsterdam, 792-817. (Paperback ISBN: 9780444639011)
37. Nasipuri, P., Saha, L., Xie, H., **Pati, J.K.**, Satyanarayanan, M., Sarkar, S., Bhandari, A. and Gaur, Y. (2019) Paleoproterozoic crustal evolution of the Bundelkhand craton, north-central India. In: van Kranendonk, M., Bennett, V. and Hoffmann, J.E. (Eds.) **Earth's Oldest Rock (2nd Edition)**, Elsevier, Amsterdam, 792-817. (Paperback ISBN: 9780444639011)
38. Nasipuri, P., Saha, L., Xie, H., **Pati, J.K.**, Satyanarayanan, M., Sarkar, S., Bhandari, A. and Gaur, Y. (2019) Paleoproterozoic crustal evolution of the Bundelkhand craton, north-central India. In: van Kranendonk, M., Bennett, V. and Hoffmann, J.E. (Eds.) **Earth's Oldest Rock (2nd Edition)**, Elsevier, Amsterdam, 792-817. (Paperback ISBN: 9780444639011)
39. Nasipuri, P., Saha, L., Xie, H., **Pati, J.K.**, Satyanarayanan, M., Sarkar, S., Bhandari, A. and Gaur, Y. (2019) Paleoproterozoic crustal evolution of the Bundelkhand craton, north-central India. In: van Kranendonk, M., Bennett, V. and Hoffmann, J.E. (Eds.) **Earth's Oldest Rock (2nd Edition)**, Elsevier, Amsterdam, 792-817.

(Paperback ISBN: 9780444639011978-0-444-63901-1; eBook ISBN: 9780444639028)

40. Alfimova, N., Raza, M.B., Felitsyn, S., Matrenichev, V., Bogomolov, E., Nasipuri, P., Saha, L., **Pati, J.K.** and Kumar, V. (2019) Isotopic Sm-Nd signatures of Precambrian Banded Iron Formation from the Fennoscandian shield, East-European Platform and Bundelkhand craton, India. **Precambrian Research (Elsevier)**, **328**, 1-8. doi.org/10.1016/j.precamres.2019.04.008.
41. Rai, A.K., Singh, A.K., **Pati, J.K.**, Gupta, S., Chakarvorty, M., Niyogi, A., Pandey, A., Dwivedi, M.M., Pandey, K. and Prakash, K. (2019) Magnetic susceptibility mapping of an urbanized interfluvial environment of the Indo-Gangetic plains (IGP) to assess the effect of anthropogenic activity on the topsoil. **Environmental Monitoring and Assessment**, **191(6):403** (Springer; doi.org/10.1007/s10661-019-7525-x).
42. **Pati, J.K.**, Poelchau, M.H., Reimold, W.U., Nakamura, N., Kuriyama, Y., and Singh, A.K. (2019) Documentation of shock features in impactites from the Dhala impact structure, India. **Meteoritics and Planetary Science (Wiley)**, **54**, Nr 10, 2312–2333. DOI: 10.1111/maps.13369.
43. Rai, A. K., **Pati, J.K.**, Parigger, C.K. and Rai, A.K. (2019) Plasma Spectroscopy of various types of gypsum: an ideal terrestrial analogue. **Atoms (MDPI, Switzerland)**, **7**, 72; DOI: 10.3390/atoms7030072.

2018

44. Niyogi, A., **Pati, J.K.**, Patil, S.K., Panda, D. and Chakarvorty, M. (2018) Magnetic measurements and geochemical characterization of the road-deposited sediments (RDS), Allahabad city, India: impact of climatic perturbations on sediment composition and provenance tracing. **Journal of Soils and Sediments (Springer)**, **18(7)**, 2581-2595. DOI:10.1007/s11368-018-1936-0.
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