

1. Name of the nominee in Full:

GOPALAKRISHNARAO PARTHASARATHY
Chief Scientist , CSIR- National
Geophysical Research Institute,
Hyderabad- 500 007, Telangana,
India.

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2. Date and Place of birth: **October 19, 1958.** Madras

3. Field of specialization:

Earth and Planetary Materials , High-pressure Mineral Physics, Meteoritics and Nanogeoscience. Environmental Mineralogy, Structure, Phase stability and Electrical properties of Minerals , Martian and Lunar analogs relevant to Indian Planetary Missions.

4. Academic Qualifications:

S.No	Degree	Subject	Class	Year	University	Additional Particulars
1	B.Sc	Physics	First	1978	Annamalai University, Chidambaram	First-Rank Gold medal
2	M.Sc	Physics	First	1980	Annamalai University Chidambaram	First-Rank Gold medal
3	Ph.D.,	Physics		1984	Indian Institute of Science, Bangalore.	Department of Physics
4	Post Doc Research work	High-pressure Physics	AvH	1987-88	University of Paderborn, Germany	Alexander-von-Humboldt Fellow
5	Post-Doc Research work	Earth Science		1989-90	Cornell University, Ithaca, NY, USA.	Visiting Scientist

Research Contributions :

Initiated Mineral Geophysics program and Nanogeoscience research in India.

Several seminal contributions were made by him in this area are purely based on indigenously developed instruments coupled with modern spectroscopic tools. His structural and thermodynamic study of wide range of Earth and Planetary materials

yielded many significant and nontrivial results, also have led to the discovery of several rare minerals, many for the first time from India, like moganite, calumetite, geikielite, zemkorite, fullerenes, and ferrous saponite. Each of the findings has been used to constrain the understanding of geological processes responsible for their formation such as mantle metasomatism beneath the Wajrakarur diamond bearing province, bolide-impact processes during the Cretaceous –Palaeogene boundary, and fluid rock interactions beneath the Deccan Trap, peak metamorphic P-T- conditions of the Gondwanaland, etc. He studied mineralogical aspects of several meteorites that fell in India during the past decades. His studies were useful in unambiguous classification of the meteorites. He has been involved in studying the terrestrial analogues minerals relevant to the Lunar and Mars Science.

He has developed an innovative method of converting water soluble carcinogenic hexavalent chromium to water insoluble less toxic trivalent chromium by using naturally occurring ferrous saponite discovered by him in the Killari borehole of Deccan volcanic province. His work on phyllosilicates may be of some use in arsenic management in water science. He has been involved in Innovative and cost effective developmental research in the area of Applied Mineralogy since three decades.

He has been involved as Associate Director of AcSIR – Academy of Scientific & Innovative Research: Dean Physical sciences, AcSIR also Dean Mathematical and Information Sciences, AcSIR. He is also member of National commission of History of science, Indian National Science Academy., New Delhi.

Positions held earlier(in chronological order)

S.No	Period	Place of Employment	Designation	Scale of Pay
1.	April 1984- 1989	IISc, Bangalore	Faculty	Rs 700-1400 (Then)
2.	1989-90	Cornell University	Post doc Res Assoc	
3.	1990-93	NGRI-CSIR	CSIR Fellow	Rs. 5000 (Then)
4.	1993 –98	NGRI-CSIR	Scientist EI	Rs.3700-125-4700-150-5000.
5	1998 -2003	NGRI-CSIR	Scientist E II	Rs 14300-18300
6.	2003-2008	NGRI-CSIR	Scientist F Deputy Director	Rs.16400-20000

7	2008-	NGRI- CSIR	Scientist G/ Chief Scientist	Rs. 37400-67000 with Grade Pay Rs. 10,000.
	2017-	CSIR- AcSIR	Associate Director (Academic and Finance)	New pay scale: 144200- 218200. Pay- 205600.

4. Awards /Honors/ Recognitions:

Alexander- von Humboldt Fellow , 1987.

Fellow of the Royal Society of Chemistry, London, UK - elected 2009.

Fellow of Indian National Science Academy , New Delhi 2013.

Member Studies of Earth's Deep Interior, American Geophysical Union. Since 1993.

Member – Deep Carbon observatory **DCO ID: [11121/3662-6268-7338-6375-CC](#)**

Member, Geological Society of America -9187350- 2014.

Member, BoS, Senate , AcSIR- Academy of Scientific and Innovative Research, CSIR, India.

Sectional committee Member, Earth and Planetary Sciences, AP Academy of Sciences- 2014-2015

Sectional committee member, Indian National Science Academy, Earth, Planet, Ocean and Atmospheric Sectional committee, INSA, New Delhi 2015-2017.

Fellow Geological Society of India since 1994.

Fellow Indian Geophysical Union since 2002.

PRL-Award in Earth and Planetary sciences, for the year 2003, PRL, Department of Space, Government of India, 2003.

Life Fellow of Mineralogical Society of India since Jan 2005.

National Mineral Award in the field of Geology, (Mineralogy and Mineral Physics) – for the year 2003, Ministry of Coal and Mines, Department of Mines, Government of India, 2003.

Honorary Fellow, Andhra Pradesh Akademi of Sciences, Earth and Planetary Sciences, 2005.

Foundation Fellow of Telangana Academy of Sciences.2015

Member, Lunar Exploration and Resources Utilization and Working Group (India) 2006.

Materials Research Society of India MRSI-medal for the year 2007

A.P. Scientist Award- 2007, in Physical Sciences, Andhra Pradesh Council of Science and Technology, Feb 2007.

Geological Society of India M.R. Srinivasa Rao Award for Experimental Mineralogy and Petrology for the Year 2008.

Indian Geophysical Union Decennial award- 2009.

Editorial Member, Open Mineral Processing Journal, USA 2010: The Open Mineral Processing Journal ISSN: 1874-8414

Editorial member, International Journal of Astronomy and Astrophysics 2011

Editorial Member , Open Journal of Geology, USA. 2011-.

Member, Science Advisory Board, USA 2010.

Life Member, American Nano Society, Since 2011.

Editorial Member, Advances in Geological and Geophysical Engineering, USA, 2013.

Editor, Journal of Earthquake Science & Engineering, Indian Society of Earthquake science.- since 2013

Editorial Member, MAPAN, Journal of metrology society of India, since 2013.

Editorial Member, "Journal of Advanced Research in Remote Sensing & GeoScience"2014.

Council Member, Indian Society of Geomatics, Space Application Center, Ahmedabad , 2015-2017.

Editorial Member, Frontiers in Geosciences, ISSN: 2332-9904 (Online), ISSN: 2332-9866 (Print)

Member, Board of Studies in Engineering and Physical Sciences Cluster, AcSIR 2015-2018

Executive Council Member, Telangana Academy of Sciences 2015-2018.

Member, Fellowship Sectional committee, Earth, Ocean, Atmospheric and Environmental Sciences, Telangana Academy of Sciences 2015-2018

Editorial Member, Karbala International Journal of Modern Science, 2015-

<http://www.journals.elsevier.com/karbala-international-journal-of-modern-science/editorial-board/>

Member, IUGG-IGU National Committee for the period January 1,2016 to December 31,2019, Indian National Science Academy INSA-ICSU.

Life Member, Astronomical Society of India (ASI)

Life Member, Astronautical Society of India, ISRO, Bangalore.

Best Reviewer Award from Geoscience Frontiers, Chinese Academy of Sciences, Beijing, China-2016.

Editorial Member, Advances in Astrophysics, USA.2016-

Editorial Member, Journal of Global Warming.2017- <http://scifed.com/journal-of-global-warming/editorial-board.php>

Professor, Physical sciences, Since 2010 AcSIR – Academy of Scientific & Innovative Research.

Senate Member and Dean (Physical Sciences) AcSIR - Academy of Scientific & Innovative Research

Editorial Member, Advances in Astrophysics 2017-2020

Dean , Mathematics and Information Sciences AcSIR- AcSIR - Academy of Scientific & Innovative Research 2017-

Associate Director , AcSIR - Academy of Scientific & Innovative Research 2017-

Patents Granted:

G. Parthasarathy, B. M. Choudary and B. Sreedhar An improved method for adsorption and reduction of hexavalent chromium by using Natural ferrous-saponite. PCT/2004/ March 31. 2004.

G. Parthasarathy, S.V. Manorama, An Improved method for synthesizing geikielite a mantle mineral. IPMD 600 NF2002/WO 26.12.2002; PCT/IN/03/00098 31-03-2003.

Adsorption and subsequent reduction of hexavalent chromium to remove chromium from water comprises reacting dichromate solution with ferrous-saponite clay

Patent Number(s): **US2006016757-A1; US7273557-B2** September, 25, 2007.

Assignee: COUNCIL SCI & IND RES INDIA

Inventor(s): **PARTHASARATHY G; SREEDHAR B; CHOUDHARY B M**

G.Parthasarathy, Manorama, S.V. A novel method for synthesis of Nano geikielite- a mantle oxide. PCT patent **WO2004/087576**, published on 14-10-2004.

G.Parthasarathy and S.V. Manorama Method of synthesis of nano-crystalline geikielite European Patent **EP1611058** was published on 04-01-2006

G.Parthasarathy and S.V. Manorama _Method for Synthesis of Geikielite- A Metal oxide” India Patent No 225140 issued on October 31, 2008.

B.M. Choudary, G.Parthasarathy, B. Sreedhar Improved process for adsorption and sequestration of hexavalent chromium using ferrous saponite clay to remove chromium from water. Derwent Primary Accession Number 2009-L66629, IN 200300272-11 published 02-01-2009.

G.Parthasarathy, B. Sreedhar, B.M. Choudary, An Improved Method for adsorption and reduction of Hexavalent Chromium by using Ferrous saponite. Patent No. 242191, India patent dated 18-08-2010.

List of Research Publications in Peer-Reviewed Journals

1. J. S. Ray and G. Parthasarathy. Recent advancement in Volcanism and Mineral Chemistry of Mantle derived rocks- An Indian Perspective in last five years. PINSAs (2018)
2. A. Niyogi, J.K. Pati, M.K. Panigrahi, D. Panda, M. Chakravorty, G. Parthasarathy. Raman, Infrared, and Chemical Characterization of Fly ash-generated spherules. Jour. Applied Spectroscopy. 85, 753-759, (2018).
3. Usha Chandra, V. Srihari, K.K. Pandey, and G. Parthasarathy, Pressure-induced Phase transition and Residual stress Studies on a Meteorite fall at Nathdwara, India, Proc. Indian National Science Academy 84, 641-655, (2018) DOI: 10.16943/ptinsa/2018/49414

4. BJ Saikia, G , Parthasarathy, RR , Borah, R Borthakur, AJD Sarmah, Meteorite Fall at Sadiya, India: A Raman Spectroscopic Classification, *Journal of Astrophysics & Aerospace Technology* 5 (2), (2017) DOI: 10.4172/2329-6542.1000149
5. B. Saikia, G. Parthasarathy, R.R. Borah, M. satyanarayanan, R. Borthakur, P. Chetia, Spectroscopy and Mineralogy of a fresh Meteorite fall Kamargaon (L6) Chondrite, *Proc. Indian National Science Academy* v 83, 941-948. (2017).
6. G Parthasarathy, SE Haggerty, B Sreedhar, N Diliawar: Osbornite (TiN): Implications for an extraterrestrial origin of carbonado-diamonds, *FUNDAMENTAL GEOSCIENCE Mineralogy T37.5 - Mineralogy* 1486 37, 1486 (2017)
7. B. Saikia, G. Parthasarathy, R.R. Borah, Mineralogy of Meteorites from the North-Eastern India: A Brief Review: *Geo Materials*, 7, 83-95.(2017).
8. C.K. Rastogi, S K Sharma, A. Patel, G. Parthasarathy, R. G.S. Pala, J. Kumar, S. Srikumar. Dopant Induced Stabilization of Metastable Zircon-Type Tetragonal LaVO₄, *J. Physical Chemistry C*. 121, 16501-16512 (2017).
9. 3. S Mitra, S Gupta, K Mitra, P Bhattacharya, S, Chauhan, G Parthasarathy, Mars on Earth – a perspective from weathering of the Deccan Trap basalts in India Large Igneous Provinces Commission 7 (6), 1-7, 2017
10. B. Saikia, G. Parthasarathy, R.R. Borah, Nanodiamonds and silicate minerals in ordinary chondrites as determined by micro-Raman spectroscopy, *Meteoritics and Planetary Sciences*, 52, 1146-1154, 2017.
11. U Chandra, KK Pandey, G Parthasarathy, SM Sharma, High-pressure investigations on Piplia Kalan eucrite meteorite using in-situ X-ray diffraction and 57 Fe Mössbauer spectroscopic technique up to 16 GPa, *Geoscience Frontiers*, 7, 265-271, 2016,
12. B.J. Saikia, G. Parthasarathy, R.R. Borah, R. Borthakur. Raman and FTIR Spectroscopic Evaluation of Clay Minerals and Estimation of Metal contaminations in Natural Deposition of Surface Sediments from Brahmaputra River. *International Journal of Geosciences*, 7, 873-883, 2016.
<http://dx.doi.org/10.4236/ijg2016.77064>.
13. S. Bhattacharya, S. Mitra, S. Gupta, N. Jain, P. Chauhan, G. Parthasarathy, and Ajai, Jarosite occurrence in the Deccan Volcanic Province (DVP) of Kachchh, Western India: Spectroscopic studies on a martian analog locality. *J. Geophys. Res. Planets*, 121, 402-431, doi:10.1002/2015JE004949 (2016)
14. U. Chandra, P. Shrama, and G . Parthasarathy. High-Pressure studies on nanocrystalline borderline Co_{1-x}Fe_xS₂ (x=0.4 and 0.5) using Mossbauer spectroscopic and electrical resistivity techniques up to 8 GPa. *Phase Transitions*. (2016) DOI:10.1080/01411594.2016.1156112
15. U. Chandra, P. Sharma, G. Parthasarathy, B. Sreedhar. Behavioural response of pyrite structures Co_{0.2}Fe_{0.8}S₂ nano-wires under high pressure up to 8 G Pa: Mossbauer spectroscopic and electrical resistivity studies. *Journal of Physics and Chemistry of Solids*. 89, 107-114, 2016. <http://dx.doi.org?10.1016/j.jpics.2015.11.001>
16. Saikia, B.J., Parthasarathy, G. and Borah, R.R. (2015) Distribution of Microcrystalline Quartz in Glassy Fulgurites from Garuamukh and Kimin, India. *Journal of Applied Mathematics and Physics*, **3**, 1343-1351. <http://dx.doi.org/10.4236/jamp.2015.310161>.
17. G. Parthasarathy, M. Santosh, Pressure Induced Polymorphic Phase Transition of Natural Metamorphic Kalsilite; Electrical Resistivity and Infrared Spectroscopic Investigations, *Minerals*, **2015**, *5*(4), 647-653; doi:10.3390/min5040514
18. O.P. Pandey ,Priyanka Tripathi ,G. Parthasarathy , V. Rajagopalan and B. Sreedhar Geochemical and Mineralogical studies of Chlorine- rich Amphibole and Biotite from the 2.5 Ga mid-crustal basement beneath the 1993 Killari earthquake region, Maharashtra (India): Evidence for Mantle metasomatism beneath the Deccan Trap? *Journal of Geological Society of India* 83 (6), 599-612, (2014)

19. Usha Chandra, I. Zuburtikudis, G. Parthasarathy and B. Sreedhar. High Pressure Electrical resistivity and Mössbauer spectroscopic studies on narrow band Co_{0.8}Fe_{0.2}S₂ nanoparticles up to 8 GPa. *Phase Transitions* 87 (5), 477–490 (2014)
20. V. Agarwal, G. Parthasarathy, M.S. Sisodia, N. Bhandari. Fall, mineralogy and chemistry of Nathdwara H6 chondrite, *Geoscience Frontiers* 5 (3), 413-417 (2014)
21. U. Chandra, G. Parthasarathy, N.V.C. Shekar, P.C. Sahu. X-ray diffraction, Mossbauer spectroscopic and Electrical Resistivity studies on Lohawat meteorite under High-pressure up to 9 GPa. *Chemie der Erde*, vol 73, 197-203, 2013
22. P. Gangwar, M. Pandey, S. Srikumar, R.S. Pala and G. Parthasarathy. Increased Loading of Eu³⁺ Ions in Monazite LaVO₄ Nanocrystals via Pressure-Driven Phase Transitions, *Crystal Growth and Design*, vol 13, 2344-2349 (2013).
23. G. Parthasarathy, D.K. Sharma, Y.K. Sharma, U. Chandra. High-pressure electrical resistivity studies on FeSe₂ and FeTe₂. *AIP Conf.Proc.* 1512; 40-41 (2013) doi 10.1063/1.4790900.
24. G Parthasarathy, F Gorbatshevich Electrical Properties of amphiboles from the Kola super deep borehole, Russia, at mantle pressure and temperature conditions *Journal of Physics: Conference Series* 377 (1), 012056 (2012) 2012 6 pages.
25. G Parthasarathy: Impact metamorphism at the Cretaceous-Paleogene Boundary and High-pressure Mineral Physics *Journal of Physics: Conference Series* 377 (1), 012057 (2012) 2012 7 pages
26. TR Ravindran, AK Arora, G Parthasarathy: Raman spectroscopic study of pressure induced amorphization in Cavansite *Journal of Physics: Conference Series* 377 (1), 012004 (2012) 5 pages.
27. P. Tripathi, G. Parthasarathy, S. M. Ahmad, O.P.Pandey. Mantle-derived fluids in the basement of the Deccan Trap: evidence from stable carbon and oxygen isotopes of carbonates from the Killari borehole basement, Maharashtra, India, **International J Earth Sci (Geol. Rundsch) , v 101, 1385-1395, 2012.**
28. U.Chandra, P. Sharma, and **G.Parthasarathy**. High-pressure Electrical resistivity, Mossbauer, Thermal analysis, and Micro Raman spectroscopic investigations on Microwave synthesized orthorhombic cubanite (CuFe₂S₃) **Chemical Geology 284, 211-216 (2011) .**
29. **G. Parthasarathy** and B. Sreedhar : Researches in Nanogeoscience and their relevance to the Planetary Shallow subsurface science. **Nano Digest vol. 3, 14-17, September 2011.**
- 30. G. Parthasarathy**. Electrical properties of Natural and synthetic nano-crystalline MgTiO₃ Geikielite at mantle pressure and temperature conditions. **American Mineralogist** 96, 860-863 (2011) .
- 31.** G.N. H. Kumar, **G. Parthasarathy**, J.L. Rao, Low temperature Electron Paramagnetic Resonance studies on natural calumetite from Khetri copper mine, Rajasthan, India, **American Mineralogist** v 96, 654-658 (2011) .
- 32. G. Parthasarathy**, and B. Sreedhar. Pressure dependence of the electrical resistivity of natural cassiterite SnO₂, and of undoped and Co-doped nanocrystalline SnO₂ , **Philosophical Magazine Letters v 91 (3), 200-206 (2011)**
- 33. G. Parthasarathy** Book Review on " Mathematical Analysis of Gravity Anomalies : Concepts, Algorithms and Computer Programs- by V. Chakravarthi, Lambert Academic Publishing GmbH &Co, KG, Germany,2010, pp 234" **Journal of the Geological Society of India.v 77, 197-199, 2011.**
- 34.** R. Arundhati, B. Sreedhar, **G.Parthasarathy**. Highly efficient heterogeneous catalyst for O-arylation of phenols with aryl halides using natural ferrous chamosite. **Applied Clay Science** 51, 131-137, (2011).
35. B.J. Saikia, **G.Parthasarathy** Fourier Transform Infrared Spectroscopic characterization of Kaolinite from Assam and Meghalaya, Northeastern India, **Journal of Modern Physics** 1, 206-210 (2010) .
36. U. Chandra, **G. Parthasarathy**, P. Sharma. Synthetic cubanite CuFe₂S₃ : Pressure-Induced Transformation to Isocubanite. **Canadian Mineralogist** 48, 1137-1147 (2010).

37. B. Sreedhar, R. Arundhathi, **G.Parthasarathy**. Chamosite –a naturally Occurring Clay as a versatile catalyst for various organic transformations. *Clay Minerals*.45, 281-299 (2010)
38. Usha. Chandra, Pooja. Sharma, **G. Parthasarathy**, and B. Sreedhar. ^{57}Fe Mossbauer Spectroscopy and electrical resistivity studies on naturally occurring native iron under high pressures up to 9.1 GPa. **American Mineralogist (2010)**. 95, 870-875, (2010)
39. G.N. Hemantha Kumar, **G. Parthasarathy**, R.P.S. Chakradhar, J. L. Rao, and Y.C. Ratnakaram. Temperature dependence on the electron paramagnetic resonance spectra of natural jasper from Taroko Gorge (Taiwan). **Physics and Chemistry of Minerals**. 37, 201-208 (2010).
40. P. Tripathi, O.P. Pandey, **G. Parthasarathy** Anomalous thermal structure and upwarping of mafic crust below the K-T- boundary impact site offshore near Mumbai- Implication for Hydrocarbon occurrences. 8th Biennial International Conference and Exposition on Petroleum Geophysics P182-1 to P182-4. (2010).
41. U. Chandra and **G. Parthasarathy** Study of Naturally occurring Precambrian native Iron through High-pressure Mössbauer spectroscopy up to 10 GPa. Shock compression of Condensed matter-2009 parts 1 and 2 , volume 1195, AIP proceedings, Edited M.L. Elert, W.T. Butler, M.D. Furnish, W.W. Anderson, W.G. Proud. **American Institute of Physics**. 886-889 (2009)
42. N. Bhandrai, S.V. S. Murty, RR. Mahajan, **G. Parthasarathy**, P.N. Shukla, M.S. Sisodia, V.K. Rai. Kaprada (L5/6) Chondrite: Chemistry, petrography, noble gases, and nuclear tracks. **Planetary and Space Sciences v** 57, 2048-2052, 2009.
43. B J. Saikia, **G. Parthasarathy**, N.C. Sarmah. Spectroscopic Characterization of Olivine $[(\text{Fe,Mg})_2\text{SiO}_4]$ in Mahadevpur H4/5 ordinary chondrite. **Journal of American Science** 5, 71-78, (2009)
44. G.N.H. Kumar, **G. Parthasarathy**, R.P.S. Chakradhar, I. Omkaram, J.L. Rao, and Y.C. Ratnakaram. Electron paramagnetic resonance studies on clinocllore from Longitudinal Valley area, northeastern Taiwan. **Physics and Chemistry of Minerals**. 36, 447-453 (2009).
- 45.** B.J. Saikia, **G. Parthasarathy** and N.C. Sarmah, Fourier Transform Infrared Spectroscopic Characterization of Dergaon H5 Chondrite: Evidence of Aliphatic Organic Compound, **Nature and Science** 7, 45-51 (2009).
46. O.P.Pandey , K.Chandrakala, **G. Parthasarathy**, P.R.Reddy and G. Koti Reddy Upwarped high velocity mafic crust, Subsurface Tectonics and causes of intra plate Latur-Killari (M 6.2) and Koyna (M 6.3) earthquakes, India – A comparative study, **Journal of Asian Earth Sciences** 34, 781-795 (2009)
- 47.** B. Sreedhar, R. Arundhathi, M. Amarnath Reddy, **G. Parthasarathy**. Highly efficient heterogeneous catalyst for acylation of alcohols and amines using natural ferrous Chamosite. **Applied Clay Science** 43, 425-434 (2009).
- 48.** N. Dilawar, U. Chandra, **G.Parthasarathy**, A. K. Bandyopadyay, Study of High-pressure Induced phase transition in Nnano-crystalline perovskite (La,Sr) $(\text{Mn,Fe})\text{O}_3$ by Raman Spectroscopy, **Journal of Raman Spectroscopy**. 39 1765-1771 (2008)
49. B. J. Saikia, **G. Parthasarathy** , and N.C.Sarmah Fourier transform infrared spectroscopic estimation of crystallinity in SiO_2 based rocks , **Bull. Mater.Sci** 31 v 31, 775-779 (2008)
50. **G.Parthasarathy**, Mineral Physics, Experimental Mineralogy and nano-geoscience in " Glimpses of Geoscience Research in India" Eds.A.K. Singhvi, A. Bhattacharya, S. Guha, Indian National Science Academy, New Delhi, 2008. pp 213-217.
51. N. Bhandari, SV.S. Murty, P.N. Shukla, R.R. Mahajan, A.D. Shukla, G. Lashkari, M.S.Sisodia, R.R.Tripathi, **G.Parthasarathy**, H.C. Verma, and I.A.Franchi, Ararki (L5) chondrite : first meteorite find in Thar desert of India , **Meteoritics and Planetary Sciences** 43, 761-770 (2008) .
52. B.J. Saikia, **G.Parthasarathy**,N.C. Sarmah, G.D. Baruah, Fourier transform Infrared Spectroscopic Studies on Glassy Fulgurites, **Bull. Mater.Sci**. 31,155-158. (2008).

53. K.S. Misra, M.R. Hammond, A.V. Phadke, F. Plows, U.S.N. Reddy, I.V. Reddy, Fareeduddin, **G.Parthasarathy**, C.R.M. Rao, B.N. Gohain, D. Gupta, Fullerene bearing Shungite Suite Rock in Mangampeta Area, Cuddapah District, Andhra Pradesh, **J. Geological Society of India** vol 71, 590-591 (2008).
- 54. G.Parthasarathy**, N.Bhandari, M.Vairamani, A.C.Kunwar. High-pressure phase of natural fullerene C₆₀ in Iridium-rich Cretaceous –Tertiary boundary layers Deccan Inter-trappean deposits, Anjar, Kutch, India. **Geochim.Cosmochim.Acta** **72, 978-987(2008)**
55. **G.Parthasarathy**. High-Temperature Decomposition of Tremolite from The Archaean rocks of Kola Super Deep Well (12,148 meters): Electrical Resistivity, Heat Capacity, and IR spectroscopic studies. **Vestnik MSTU Vol 10, No.2, (2007) pp 273-279. (In Russian)**
56. B.J. Saikia, **G.Parthasarathy**, N.C. Sarmah, and G.D. Baruah, Fulgurites from Garuamukh, Assam, India-FTIR Spectroscopic study, **Geochimica et Cosmochimica Acta** vol 71, (15) A866 (2007).
57. B.J. Saikia, **G.Parthasarathy**, N.C. Sarmah, and G.D. Baruah, Organic compounds in H5 meteorite: Spectroscopic investigation of Deragaon H5 chondrite, **Geochimica et Cosmochimica Acta** vol 71, (15) A867 (2007).
- 58. G.Parthasarathy**, Electrical properties of geikielite at high pressures and temperatures, **Geochimica et Cosmochimica Acta** vol **71, (15) A759, (2007)**.
59. **G. Parthasarathy** Electrical Resistivity of Nano-crystalline and natural MgTiO₃ - Geikielite at High-pressures up to 8 GPa. **Materials Letters** 61, 4329-4331 , (2007)
60. S.R. Sharma, **G. Parthasarathy**, A.K. Arora, Evaluation Of Peak Metamorphic Temperatures Using Spectroscopic Studies On Carbonaceous Matter Extracted From The Earth And Planetary Materials, **The Indian Mineralogist** 41, 1-17, (2007) .
61. **G.Parthasarathy**, High-Temperature Electrical Resistivity and Heat Capacity Studies on Nano-crystalline Geikielite, **Materials Letters** **61**, 3208-3210 (2007)
62. **G. Parthasarathy**, R. Srinivasan, G.D. Mukherjee, G. Bansal, Ashok Chatterjee, Thermal Expansion study of a uvarovite rich garnet. **International Journal of Modern Physics B**.21-1915-1922 (2007).
- 63. G.Parthasarathy**, A.S. Collins, T.R.K. Chetty, Discussion on Natural Graphite from Inanalo Mountain, Southern Madagascar , **J. Geological Society of India** v69, 865-866 (2007).
64. **G. Parthasarathy**, B.M. Choudary, B. Sreedhar, A.C. Kunwar. Environmental Mineralogy: Spectroscopic studies on ferrous saponite and reduction of hexavalent chromium, **Natural Hazards Vol 40, 647-655, (2007)**
65. **G.Parthasarathy** and S.V. Manorama, A Novel method for synthesizing Nano-crystalline MgTiO₃ Geikielite, **Bull. Materials. Science** 30, 19-21, (2007).
66. K.S. Misra, M.R. Hammond, A.V. Phadke, F. Plows, U.S.N. Reddy, I.V. Reddy, Fareeduddin, **G.Parthasarathy**, C.R.M. Rao, B.N. Gohain, D. Gupta, Occurrence of Fullerene bearing Shungite Suite Rock in Mangampeta Area, Cuddapah District, Andhra Pradesh. **J. Geological Society of India** 69, 25-28 (2007)
67. **G. Parthasarathy**, Alan S. Collins, T.R. K. Chetty, Natural graphite from Neoproterozoic psammitic gneiss, Inanalo Mountain, Southern Madagascar. **J. Geological Society of India** 68, 176-180 (2006).
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