



1. Name: Dr. Kakali Datta
2. Date of birth: 27.08.1972
3. Name of parents: Sudhir Datta
4. Address: (a.) Present; (b.) Permanent; (c.) Official :  
Present and permanent Address: Green Park, Amtala,(Golapbag), Rajbati, Burdwan 713104  
Official Address: Dept. of Chemistry, MUC Women's College
5. Contacts: (e-mail and ph. no. preferably active whats app no.): kakali12dat@gmail.com; 9474376317
6. Religion: Hinduism
7. Nationalism: Indian
8. Academic Qualifications: (From highest to lowest with detail e.g. year of Passing, Board/College/University, Percentage of total Marks, Class, Specialization if any : Annexure
9. National Eligibility Test qualified if any (UGC NET, UGC-CSIR NET, SET/SLET, GATE etc with year):  
Annexure
10. Research experience: (a.) Details of personal research(M.Phil./Ph.D.); (b.) Research Supervision, if any  
Ph.D from The University of Burdwan dated 13.02.2001. Title: "EDA Interaction.....Experimental study"
11. Postdoctoral Research experience, if any: Give short description with in detail : Research Associate(RA) position from CSIR, India. Postdoctoral Research work associated with The University of Burdwan from Feb'2002 to Sep'2006.
12. Research Projects, if any (Provide details – Ongoing/Completed) : Annexure
13. Patent, if any: Nill
14. ORCID ID: if any
15. No. of Citations, if any: (as on 31.01.2024 preferably from google scholar citation index)
16. H-index: if any
17. i10 –index: if any
18. Awards/Recognition/Honour, if any
19. Paper Presentation details (State, National and International Level): Annexure
20. Invited Lectures/ Resource person, if any: Nill
21. Publication details other than journal: (a.) Books written/edited; (b.) Essays/Articles; (c.) Chapters in a book;(d)  
Study Materials prepared
22. Editing experience, if any: Nill
23. Member on editorial board/Advisory Board: Nill
24. Refresher Course/Orientation Programme/Short Term Course attended: Annexure

25. Seminar/Conference/Professional development programme attended: Annexure
26. Teaching experience: (a.) this college; (b.) previous experience: (a) in this college : 18.09.2006 to till date
27. Member on academic bodies outside college(UGBS/PGBS, etc)
28. Academic Leadership (Head/Convener/ Coordinator, etc)
29. Members on different committees within college:
30. Experience as members on Selection Committee, if any:
31. Teaching experience outside the curriculum(NSOU, IGNOU, PCP, etc):
32. Member of Academic Associations:
33. Area of interest: (both in teaching and present research): Annexure
34. Anything remarkable contribution:
35. Publication: (total no of publication with details till 31.01.2024)
36. Declaration (with signature and date):

### Annexure

#### 8. Educational Qualifications

Examination	Name of the Board or University	Year of Passing	Class/grade
Madhyamik	WBBSE	1986	I
Higher Secondary	WBBHSE	1988	I
B. Sc (Chemistry Hons)	Vidyasagar University	1991	II
M.Sc. (Chemistry)	The University of Burdwan	1993	I
Other Examination: B.Ed.	The University of Burdwan	1995	I
NET	CSIR	2000	
SLET		2001	

### Annexure-I

#### Ph.D. Publications:

1. "Studies on labile Charge Transfer complexes .....a series of phenols" Kakali Datta, Asok K. Mukherjee, Manas Banerjee, Bejoy K. Seal; *Spectrochimica Acta A*, 53(1997) 2587.
2. "Method for construction of Characteristic Polynomials.....Graph Linearization", Kakali Datta and Asok K. Mukherjee, *International Journal of Quantum Chemistry*, 65 (1997) 199.
3. "Charge transfer transition energies of EDA .....with AM1 results" Kakali Datta, Asok K. Mukherjee, Manas Banerjee, Bejoy K. Seal; *Indian Journal of Chemistry*, 38A(1999) 585.
4. "Strongly subspectral pairs .....a common generic graph", Kakali Datta, Manas Banerjee, Asok K. Mukherjee, *Phys.Chem. Chem.Phys.*, 1 (1999) 2912.
5. "Characteristic Polynomials .....their subspectrality", G. Mukherjee, K. Datta and A. K. Mukherjee, *Proc. Indian Acad. of Sci.*, 112 No.1, (2000) 27.

6. "Study of a novel reaction .....a charge transfer intermediate", T. Roy, K.Datta, M.K.Nayak, A.K. Mukherjee, M. Banerjee, B.K. Seal, *J.Chem. Soc., Perkin Trans 2*,(1999) 2219.
7. "Kinetic Study of the decay of EDA complexes ..... .. dianhydride" T. Roy, K. Datta, A.K. Mukherjee, M. Banerjee, B.K. Seal, *Indian Journal of Chemistry*, 37A(1998) 1007.
8. "Spectroscopic and kinetic studies on the electron donor-acceptor .....dianhydride", T. Roy, K. Datta, A.K. Mukherjee, M. Banerjee, B.K. Seal, *Indian Journal of Chemistry*, 36A(1997) 585.
9. "A Pascal's triangle-like approach .....reciprocal graphs", B. Mandal, K. Datta, A.K. Mukherjee, M. Banerjee, *Molecular Physics*, 96No.11, (1999)1609.
10. Studies on the charge-transfer complexes .....a series of methylbenzene", B. Chakravarty, K. Datta, A.K. Mukherjee, M. Banerjee and B, K. Seal, *Indian Journal of Chemistry*, 37A(1998) 865.
11. Ground state EDA complex formation between [60]fullerene .....aromatic hydrocarbon", K.Datta, M. Banerjee, B.K. Seal and A.K. Mukherjee, *J.Chem. Soc., Perkin Trans 2*,(2000) 531.
12. "A graph theoretical analysis of the electron acceptor properties.....quinol", D.C. Mukherjee, K. Datta and A.K. Mukherjee, *Indian Journal of Chemistry*, 40A(2001) 126.

#### Post Ph.D. Publications:

- 13."Study of a reaction between 2,3-dichloro-1,4-Naphthoquinone.....involving EDA adduct as intermediate", K. Datta and A.K. Mukherjee, *Spectrochimica Acta A*, 60(2004) 1641.
- 14."Comparative Study of the Host-Guest Complexes.....in different solvents", Kakali Datta, Manas Banerjee and Asok K. Mukherjee, *The Journal of Physical Chemistry B*, 108 (2004) 16100.
15. "Study of quenching of anthracene fluorescence by [60]fullerene", K. Datta and A.K. Mukherjee, *Spectrochimica Acta A*, 65 (2006) 261.
16. "Construction and Utilisation of Planar Graphs .....use of threefold rotational symmetry", B. Mandal, K. Datta, M. Banerjee and A.K. Mukherjee, *The International Journal of Quantum Chemistry*,105 (2005) 201.
17. "Aggregation of [70]fullerene .....A chemical kinetic experiment", K. Datta and A.K. Mukherjee, *The Journal of Chemical Physics*, 124 (2006) 144509.
18. "A comparative study of molecular complexation of [60] fullerene and [70]fullerene .....by UV-Vis spectroscopic method", K. Datta and A.K. Mukherjee, *Spectrochimica Acta A*, 62(2005) 66.
19. Spectroscopic and thermodynamic study of charge-transfer interaction between Vitamin B<sub>6</sub> .....varying composition", K. Datta, Dalim Kumar Roy and A.K. Mukherjee, *Spectrochimica Acta A*, 70(2008) 425.
20. "Performance of the M06 family of functionals in predicting the charge transfer transition energies of molecular complexes of TCNE with a series of methylated indoles", Amit S. Tiwary , Kakali Datta , Asok K. Mukherjee, *Computational and theoretical Chemistry*, 1068 (2015) 123.
21. "A brief Review of the Structure and Properties of Buckyball ([60]fullerene)", Kakali Datta, *Journal of Arts, Science and Teaching*, Vol. 01, No.01(2015) 51.
22. "Planar graph representation of [60]- and [70]fullerene structures: some advantages with such representations", Kakali Datta, *Journal of Indian Chemical Society*, 93, No.1 (2016) 39.
23. "Eigenspectral features of some radialene-related  $\pi$ -conjugated systems", Kakali Datta, *Journal of Indian Chemical Society*, 93, No. 6 (2016) 635.
24. "Isomer enumeration using cyclic permutation- An example", Kakali Datta, *Journal of Arts, Science and Teaching*, Vol.03, No.01(2017) 35.
25. "Graphs with the golden ratio eigenvalues and conjugated  $\pi$ -systems", Kakali Datta, *Journal of Indian Chemical Society*, 95, No. 4 (2018) 417.

#### Paper and poster presentation:

1. "Non-degenerate eigenvalues of C<sub>50+10n</sub> and C<sub>60+12n</sub> fullerene graphs", Kakali Datta and Asok K.Mukherjee, *First Indo-US Workshop on Mathematical Chemistry*, January 9-13,1998,Visva Bharati University, Santiniketan.
2. "Calculation of <sup>1</sup>H NMR chemical shifts of methyl group protons in a series of methylbenzene charge transfer complexes by Density Functional Theory", Kakali Datta, *UGC Sponsored National Seminar on Frontier in Chemistry*, 4<sup>th</sup> and 5<sup>th</sup> December, 2013, M.U.C.Women's College.

3. "Construction and Utility of [60]- and [70]Fullerene Graphs", Kakali Datta, National Level Seminar on Advanced Spectroscopy, Theoretical Chemistry, Synthesis, Reactivity and Structural evaluation, 19<sup>th</sup>-21<sup>st</sup> February, 2015, The University of Burdwan, India.
4. "Subspectrality in the graphs of  $\pi$ -conjugated systems", Kakali Datta, National Level Seminar on Design, Synthesis, Chemical and Biochemical activities of Different Functional Molecules, 4<sup>th</sup>-6<sup>th</sup> February, 2016, The University of Burdwan, India.
5. "Vertex Colouring of Chemical Graphs", Kakali Datta, International Science Seminar on Science: Past, Present and Future, 12<sup>th</sup> December, 2017, Syamsundar College, in Association with Indian Chemical Society, India.
6. "Topological Symmetry of Chemical Graphs", Kakali Datta, National Seminar on Frontiers in Chemical Sciences (NSFCS-2018), Trivenidevi Bhalotia College, Raniganj, India.

**Minor Research Project of UGC Grant** Amount Rs. 142500.00 (Sanction No. F. PSW-017/08-09 (ERO) has been completed.

**Title:** Analysis of Fractal Graphs for Molecular Aggregates and Crystals.

#### Annexure-II

Academic Staff College Orientation/Refresher/STC Course attended.

Name of the Course/Summer School	Place	Duration	Sponsoring Agency
70 <sup>th</sup> Orientation Programme	Academic Staff College, The University of Burdwan	28 days (16.05.2009-12.06.2009)	UGC
5 <sup>th</sup> Refresher Course in Chemistry	Academic Staff College, The University of Burdwan	21 days (28.08.2010-17.09.2010)	UGC
1 <sup>st</sup> Refresher Course in Nano Science, Nano Tech & Appl	Academic Staff College, The University of Burdwan	21 days (11.06.2014-01.07.2014)	UGC
STC in Students Counseling and Guidance	Human Resource Development Centre, The University of Burdwan	7 days (25.08.2015-31.08.2015)	UGC
STC in National Foundation for Communal Harmony	Human Resource Development Centre, The University of Burdwan	7 days (23.06.2016-29.06.2016)	UGC
Workshop on Student Guidance Counseling and Career Planning	Human Resource Development Centre The University of Burdwan	7 days (25.08.2018-31.08.2018)	UGC