



1. Name: DR. PINAKI SARKAR

2. Date of Birth: 05.07.1968

3. Current Position and Address: Principal Scientist, Combustion Science and Technology CSIR-CIMFR, Dlgwadih Campus, P.O. FRI, Dhanbad-828108, Jharkhand, INDIA, email: pscfri@rediffmail.com, 0326-2388286, 09431512885

4. Educational qualifications: (Graduation and above)

Sl. No.	Degree/ Certificate	Year of Passing	University/ Institute	Subjects
i	B. Tech in Chemical Technology (Specialization : Ceramic Engineering)	1990	The University of Calcutta	
ii	M. Tech in Ceramic Engineering	1991	The University of Calcutta	
iii.	Ph.D. (Tech)* in Chemical Technology	1998	The University of Calcutta	

5. Work experience

Designation	Institution/company	From	To	Nature of work
i. Scientist B	CSIR-CFRI	29.10.1997	28.10.2001	R&D
ii. Scientist C	CSIR-CFRI	29.10.2001	28.10.2005	R&D
iii. Scientist E1	CSIR-CIMFR	29.10.2005	28.10.2009	R&D
iv. Pr. Scientist	CSIR-CIMFR	29.10.2009	till date	R&D

6. Area of specialization: Coal combustion, GHG emission, Thermal Analysis, Material Science, Ceramic Engineering.

7. Honors/Awards received:

8. Fellowships/Scholarships:

9. No. of Research Publications:

- Papers in journals: 25
- In conference proceedings: 5
- Invited/key-note addresses: 10
- List of best 05 publications:
 - Agglomeration behaviour of high ash Indian coals in fluidized bed gasification pilot plant S. Datta , P. Sarkar, P.D. Chavan, S. Saha , G. Sahu, A.K. Sinha , V.K. Saxena, **Applied Thermal engineering** 86 (2015), 222-228

- Evaluation of combustion behaviour of coal blends for use in pulverized coal injection (PCI) S.G. Sahu , A. Mukherjee , M. Kumar, A.K. Adak , P. Sarkar, S. Biswas , H.P. Tiwari , A. Das , P.K. Banerjee , **Applied Thermal engineering**, 73 (2014), 1012-1019
- Co-combustion studies for potential application of sawdust or its low temperature char as co-fuel with coal, P. Sarkar, S.G. Sahu, A. Mukherjee, M. Kumar, A. K. Adak, N. Chakraborty, S. Biswas, **Applied Thermal Engineering**, Vol 63, Issue 2, 22 February 2014, Pages 616–623
- Studies on potential utilization of rice husk char in blend with lignite for co-combustion application, P. Sarkar, S.G. Sahu, N. Chakraborty, A. K. Adak, **Journal of Thermal Analysis and Calorimetry**, Vol 114, No. 2, Published on line in Novemver' 2013 (DOI 10.1007/s10973-013-3499-z), final publication: February 2014, Volume 115, Issue 2, pp 1573-1581
- Evaluation of combustion characteristics in Thermogravimetric Analyzer and Drop Tube Furnace for Indian coal blends, P. Sarkar*, A. Mukherjee, S. G. Sahu, A. Choudhury, A. K. Adak, M. Kumar, N. Choudhury, and S. Biswas, **Applied Thermal Engineering**, 60 (2013) 145 -15.

10. Number of Books authored/edited:

11. (a) No. of Patents granted/applied for: 03

(b) Technologies developed, Licensed and/or commercialized:

12. Foreign visits:

13. Details of Professional memberships:

i.) The Indian Institute of Chemical Engineers' (life member)

ii.) The Indian Ceramic Society (life member)

ii.)The Material Research Society of India (life member)

14 . Major contributions: (Max. 150 words)

- Served different industries to solve combustion related problems.
- Contributions to NATCOM projects (on GHG) for onward communications of Govt. of India to UNFCCC
- Estimation of normative coal requirement by the industries in National interest, i.e., towards judicious allocation of precious coals of different grades.
- Contributed to basic studies and correlations were attempted to find out role of different traditional parameters of coal with combustion behaviour.
- Developed petrofactor concept for assessment of combustion behavior of coal
- Preparation of database of co-combustion of coal biomass blends.
- Oxy-fuel combustion studies of coal towards development of futuristic technology.
- Plant level GHG emission estimates for thermal power plant and integrated steel plant.

- Preparation of National GHG inventory for energy and manufacturing industries.
- Setting up modalities for normative requirement of coal for different Industries.
- Studies on combustion behaviour of non coking coals and their selected blends to assess their suitability for pulverized coal Injection (PCI) in blast furnace using TGA and DTF.
- Studies on utilisation potential of Spent Pot Lining (SPL) of smelter as a co-fuel at captive power unit.
- Development of Chart between Useful Heat Value (UHV) and Gross Calorific Value (GCV) in National interest and Pilot study for migration from UHV to GCV based gradation system. Based on the above studies commercial grading system of non-coking coals have been changed by GOI with effect from 1. 1. 2012.
- Served HPCL to develop technology (aqua conversion route) for conversion of heavy oils to value added products (joint patent CSIR-HPCL filed)

15. Technologies and Products/ Services

- (i) Developed:
- (ii) Licensed:
- (iii) Commercialized:

16. Designs and Prototype Developed:

17. Honours and awards won for technological contributions or sociological impact of R&D:

Signature