

1. Name: **ASHIS KUMAR ADAK**

2. Date of Birth: **12.02.1970**



3. Current Position and Address:

**Sr T.O(1); Gr.III(4)**; Combustion Science and Technology; CIMFR-Digwadih Campus, P.O. FRI, Dhanbad-828108, Phone: 0326-2388268/269, 9431513243; *E-mail: akadak\_05@rediffmail.com*

4. Educational qualifications: (Graduation and above)

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Sl. No.	Degree/ Certificate	Year of Passing	University/ Institute	Subjects
i.	B.Sc (Hons) in Chemistry	1991	Midnapore College, Vidyasagar University	Chem(H), Maths, Phys as pass subjects
ii.	M. Sc in Chemistry	1993	Vidyasagar University	Chemistry (Organic Chem Spl.)

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5. Work experience: -

a) At Department of Chemistry, IIT, Kharagpur (Oct'94 to Oct'97): As a research fellow work involved synthesis and characterization of mixed metal oxide powders by chemical route, taken practical classes of 1<sup>st</sup> Year B.Tech students during my stay.

b) At CIMFR, erstwhile CFRI (Oct'97 to till date): Involved in various R & D activities that includes studies on relative combustion behaviour of coal, char, coke, lignite, biomass and their blends by TG-DSC technique, non-isothermal thermo gravimetric analysis (TG-DSC) of raw coals & their blends considering coal quality parameters along with TGA reactivity. Actively participated in combustion studies conducted in bench scale Drop Tube Furnace and pilot scale combustion test facilities available in Power Coal Division. Assessment of non-coking coals/their blends for PCI injection was also conducted as per the demand from power industry. Characterization and evaluation of coals and chars have also been carried out as per the need of R&D activities.

6. Area of specialization: Combustion

7. Honors/Awards received: Nil

8. Fellowships/Scholarships: Nil

9. No. of Research Publications:

- Papers in journals: **17**
- In conference proceedings: **14**
- Invited/key-note addresses: **Nil**

- List of best 05 publications:
- ✓ **A.K. Adak** and P. Pramanik .,Synthesis and characterization of lanthanum aluminates powder at relatively low temperature, **MATERIALS LETTER**, **30**, 269-273 (1997).
- ✓ **A.K. Adak**, S. K. Saha, and P. Pramanik, Synthesis and Characterization of MgAl<sub>2</sub>O<sub>4</sub> spinel by PVA Evaporation Technique, **JOURNAL OF MATERIALS SCIENCE & LETTERS**, 16[3], (1997) 234-235.
- ✓ S.G.Sahu, P.Sarkar, N.Chakraborty and **A. K. Adak**.Thermogravimetric assessment of combustion characteristics of blends of a coal with different biomass chars, **FUEL PROCESSING TECHNOLOGY**. **91**(2010) 369-378.
- ✓ P. Sarkar, S. G. Sahu, N. Chakraborty and **A. K. Adak** , Studies on potential utilization of rice husk char in blend with lignite for co-combustion application, **JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY** 115 (2) (2014) 1573 – 1581.
- ✓ S. G. Sahu, A. Mukherjee, M. Kumar, **A.K.Adak**, P. Sarkar, S. Biswas, H.P.Tiwari, A. Das, P.K. Banerjee, Evaluation of combustion behavior of coal blends for use in pulverized coal injection (PCI), **APPLIED THERMAL ENGINEERING** 73 (2014) 1012-1019.

10. Number of Books authored/edited: Nil

11. (a) No. of Patents granted/applied for: **02**  
 (b) Technologies developed, Licensed and/or commercialized: Nil

12. Foreign visits: Nil

13. Details of Professional memberships: **Materials Research Society of India (MRSI): Life Member**

14 . Major contributions: (Max. 150 words).

- TGA-DSC studies of coal, lignite, biomass, blends to generate basic data on combustion reactivity & kinetics for classifying solid fuels in terms of their combustion performances.
- Up-gradation of knowledge base for coal-biomass co-combustion and in the area of oxy-fuel combustion.
- 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 Equivalency Chart between Useful Heat Value (UHV) and Gross Calorific Value (GCV).
- Pilot study for migration from UHV to GCV based gradation system.
- Preparation of National GHG inventory for energy and manufacturing industries.

15. Technologies and Products/ Services Nil

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

16. Designs and Prototype Developed: Nil

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

Signature