RESUMÉ

Sabyasachi Roy
Director
ANTS Ceramics Pvt. Ltd
ANTS Innovations Pvt Ltd
Unit No -1, Jivdhani Industrial Estate, Vasai
www.antsceramics.com

91-8600033153 (Mobile)
sabya@antsceramics.com
roysabya@gmail.com

Current Profile:

August 2005- Till Date

Co-founder and Director of ANTS Ceramics Private Limited and ANTS Innovations Private Limited

Established in 2005 as a co-incubatee of STEP, IIT Kharagpur & CIIE, IIM Ahmedabad ANTS Ceramic Pvt. Ltd. is into advanced materials' manufacturing using indigenously developed & patented technology. Present product range includes High purity & high performance Alumina components & pure Silica & Zircon and Zirconia, Quartz and platinum based products and High temperature furnaces
The company is manufacturing over 315 standard products & many more customised products which are highly competitive & at par to the global standards.
The present customer base consists of govt. research & defense organizations like BARC, ISRO, IGCAR, DMRL, NML, educational institutions like IITs, Universities like Mumbai, Pune, Annamalai, Allahabad etc.,private sector players like GE, CGL, Precise Vacuum, Sterlite, Monarch Catalysts etc. Company has customers in Singapore, Europe, and United States.
ANTS Ceramics is now a profitable organization with ISO Certification and DSIR recognized in house R & D Unit.

ANTS Innovations Private Limited was started in 2016 to put concentrated effort in development of Furnaces and heating solutions.

ANTS Ceramics Private Limited has received National Award for MSME 2018 from Honourable Presidents of India on Technology Day

Business Advisor
Metwiz Materials Pvt Ltd **April 2016 -Till Date**

Metwiz Materials Pvt Ltd is a start up with incubation of SINE, IIT Mumbai. Present scope is upscaling production and sales.

Ceramic Process Consultant
Deccan Mechanical and Chemical Industries - DEMECH India
December 2017-Till Date

Scope of work is development of wear resistant ceramics. DEMECH is one of pioneer engineering company in wear and abrasion related application.

Visiting Faculty **Dec. 08-June2014**
KK Wagh College of Engineering, Nashik.

Lecturer of Advance Manufacturing Processes & Material Technology course to M.E. Production, Semester I and Semester II syllabus for the course assigned to the colleges affiliated to University of Pune, approved by AICTE.

Experience:

Senior Research Fellow **Jan 06-Dec. 06**
Dept. of Met. Engineering & Materials Science, IIT Mumbai

Worked under the guidance of Prof. P. Bhargava, for the project entitled **"Fabrication of porous ceramic components for solid oxide fuel cell"**

External Examiner

External Examiner for M.Tech and B.Tech projects in Metallurgical Enginering and Materials Science Department, IIT Mumbai.

Educational Qualifications:

- **M. Tech.** inMaterials Science and Engineering from IIT Kharagpur during 2003-2005. CGPA: 9.22
- **B. Tech.** in Ceramic Technology from College of Ceramic Technology during 1999- 2003. Aggregate: 77.10 %
- Higher Secondary from Birbhum Zilla School, WBCHSE during 1997-1999 First class with 83.80%
- Matriculation from Birbhum Zilla School, WBBSE during 1997. First class with 85.36%

Projects:

M. Tech.:"Novel processing of nano ceramic metal-type conductor" under the guidance of Prof. S. Ram, IIT Kharagpur

A single phase $Sn_{0.9}Sb_{0.1}O_{1..95}$ compound was synthesized in the form of a finely divided loose nanopowder by using a novel chemical method. This involved a controlled reconstructive decomposition of a polymer precursor, which was synthesized by reaction of the metal cations (from $SnCl_2.2H_2O$ and Sb_2O_3) with active polymer molecules of polyvinyl alcohol in water. As analyzed with X-ray diffraction, the sample $Sn_{0.9}Sb_{0.1}O_{1..95}$ showed a tetragonal Rutile type crystal structure. As small value of average crystallite size as 30 nm was found from the X-ray diffraction peak broadening in a $Sn_{0.9}Sb_{0.1}O_{1..95}$ powder derived after heating the polymer precursor at 500°C for 2 h in air. Temperature dependence of the electrical resistivity demonstrated a peculiar metallic conductor of ceramics, especially important for gas sensor, catalysts and other applications.

B. Tech.: "Improvement in properties of cement through partial replacement of cement by classified fly ash" under the guidance of Mr. Rituporno Sen.

Portland cement was mixed with varied quantities of fly ash fractions and blast furnace slag to make matrix of compositions. The mechanical properties of matrix of different composition were correlated with setting properties and thermal behavior.

Industrial Training:

1. Project work on "Development of coating material for investment casting", sponsored by Electro steel, under the guidance of Prof. Parag Bhargava during III Semester, M. Tech. at IIT Kharagpur.
2. Project work on "Crack analysis of green and sintered ferrite components for transformer core", sponsored by M/s. Epcos Ferrites Pvt. Limited, under the guidance of Prof. Parag Bhargava during III Semester, M. Tech at IIT Kharagpur.
3. Eight weeks summer placement and training at CUMI (Carborundum Murgappa Universal Limited- Ranipet) during III year B. Tech. (May-June 2002). Carried out a project entitled "Market survey of silicon carbide and silicon nitride in ferroalloys industry".

Publications:

1) Properties and Characterization of Sintered bauxite (Presented in PM 07)
2) Property Prediction of Slip-Cast Alumina Bodies from Rheological Behaviour of the Slurry (Presented in 70th Annual Session of the Indian Ceramic Society, January 8, 2007 at AU Engineering College, Andhra University)
3) Synthesis and structural analysis of quasimetallic Sn_{1-x} $Sb_xO_{2-0.5x}$ nanoceramics (MRSI Pune, 10-14 February 2005)
4) A novel chemical method for synthesizing metallic ceramic conductors of $Sn_{0.9}Sb_{0.1}O_{1.95}$ nanoparticles (Presented at ISAMAP2K4 at IIT Kharagpur, 6-8 December 2004).

Talks /Lectures delivered:

1. As a Resource Person in Conference entitled ' Nanotechnology : Overview and Applications in Multifunctional Devices ' organized by Guru Gobind Singh polytechnic college, Nashik on 23rd and 24th December 2010
2. As a Resource Person in Work Management Program Supervisory Development Program for Mahindra &Mahindra Workmen at Nashik Plant dated 2nd September 2010 organized by KK Wagh College of Engineering, Nashik.
3. As a Resource Person for expert lecture at Sandip Foundation, July 2012
4. As resource person for Ceramic Processing in Training Program in DRDO-NMRL, Ambernath, September 2012
5. Presented corporate talk in International Conference “Aluminas 2013” at CSIR-CGCRI, Kolkata, March 2013.
6. Represented ANTS Ceramics in numerous conferences from 2007 to till date.
7. Presented expert lecture as Chief guest in Mechanical Enng.Dept of S.V.I.T. Nasik at State level seminar on**“Nanotechnology**” during 20th& 21st March 2013.
8. Presented development of Advance ceramics in ANTS in NEAA 2016 (Organized by BARCOAT & BRNS) in BARC Tarapur.
9. Presented invited talk in, School of Mechanical Engineering, VIT University on High Temperature Materials and Process, April 2016
10. Presented invited talk in Industry Academia Meet in Jaipur on Manufacturing of Advance Ceramics, September 2017
11. Presented invited talk on Advance Materials Manufacturing and Entrepreneurship in India in PDPU, Gandhinagar, September 2017
12. As a resource person for short term course on Application of Ceramics in Ceramic Engineering Department, IIT BHU (2nd-4th November 2017)
13. As a Resource Person in one day workshop in association with School of Mechanical Engineering on High Temperature Materials and Process Equipment dated 12th March 2018.

14. Presented ASM technical lecture on the topic ' Ceramics in high temperature service application' organized by ASM International- India chapter,Mumbai on 6th April 2018
15. Course co-coordinator of short term course on 'failure analysis of engineering products' at IIT Patna on 10-11 May 2019.
16. As a resource person in National Workshop on "Present and Future challenges of Advanced Ceramics & Refractories" Organized by University college of Engineering and technology (16-18th October 2019)
17. As a resource person for Industrial Talk on " A Learning story at ANTS : Technical Aspect of Commercialisation of Ceramic Processing " at Department of Physics, Manipal University on 21st October 2019.
18. As a co –recipient of Ceramic glass foundation outreach project grant by American Ceramic Society for 'Academia – Industry outreach program on conventional and advanced ceramic manufacturing for the next generation of ceramics and glass engineers' along with IISc Bangalore and other institutions, conducted one day course for IIT Bombay undergraduate students on introduction to manufacturing of ceramics in June 2019.

Honors & Awards:

1. Won Silver medal as team in INCUBIZ in IIM Ahmedabad for innovation and Technology development.
2. Positioned 2nd rank in M. Tech (Materials Science Center, IIT-Khragpur, India)
3. Ranked 79 in All India Graduate Aptitude Test in Engineering (GATE) –2003
4. Ranked in best hundred 100 in Secondary & Higher Secondary examination in West Bengal and hence awarded scholarship.
5. **Received Life time Achievement of Sashadhar Roy Memorial Award from Indian Ceramic Society**

Personal Profile

Name:	Sabyasachi Roy
Date of Birth:	13-06-1980
Father's name:	Late Sadhan Kumar Roy
Sex:	Male
Marital Status:	Married
Languages Known:	English, Bengali and Hindi