Anasuya Roy Chowdhury

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Objective

In quest of career enrichment in the domain of **Research & Development** with a growth-oriented organization of high repute in chemical and biology field where my resourceful experience and academic skills will add value to organizational operations.

Overview

- A dynamic professional with more than **5 years** of experience in Technical and Customer Support, Research & Development, Paints and surface coating Management & Inspection
- Exposure in Research to find a new innovative technology like **Direct to Metal Coating (DTM) technology, Self-healing Technology, rust converter, antimicrobial-antiviral coating, application of nanotechnology into different fields of polymer segments**
- Exposure in establishing the jobsite procedures for **documentation** of company and vendor witnessing of tests
- Conversant in **managing entire lab maintenance & quality assurance**
- Proficient in providing **technical support to production** and investigation of coatings-related field issues
- Possess **excellent interpersonal, communication and analytical skills** with proven abilities in **customer relationship management**
- Acquire a brief knowledge and experience in **colour science**, **shade matching technology and analytical testing**

Professional Experiences

Nippon Paint India Pvt. Ltd.
Designation: Assistant Manager (R&D)
Duration: January, 2018- July, 2021; Location: Manesar, Gurgaon

Key Deliverables:

- **New Product Development:**
  - Developed a new **Direct to Metal technology** in 2K PU system, designed for easy application onto metal surfaces with minimal preparation
  - Direct to Metal (DTM) technology is an ideal way to get a brilliant appearance with excellent anti-corrosion and weathering properties for light and heavy-duty application to replace the multilayer coatings
  - Worked with thorough research line of waterborne DTM and chrome free DTM on rusted as well as non-rusted panels with superior anti-corrosion property
  - Worked on **self-healing technology** for automotive clearcoat system and **antimicrobial – antiviral paint technology** for interior coating system
- **Value Engineering:**
  - Evaluation of Raw Materials, technical support to marketing
- **Cross Functional Activity**
  - Functioned as a **key member in ISO certification** process with proper IMS policy
  - Lab setup and maintenance of 5S
- **Professional Achievement:**
  - Achieved Runner up award in Technical Presentation in International seminar
  - Earned Internal Auditor certificate for **ISO ISO9001:2015, ISO14001:2015 & ISO45001:2018**
  - Earned **Innovation award** in new product technology
  - Filed two patents on current work

SriRam Compounds PVT LTD
Designation: Process Member (R&D)
Duration: February, 2017 - January, 2018; Location: Noida

Key Deliverables:

- **New Product Development**
  - Conducted **nanotechnology-based** research for paint and different kinds of resin systems
  - Checked and evaluated Resins (Polyester, Epoxy, and PVDF) for property enhancement and different types of extenders & implemented in Paint System to reduce paint cost
  - Developed new products like **rust converter** based on direct to metal application

AkzoNobel India LTD
Designation: Technical Trainee (R&D)
Duration: July, 2013 - November, 2013; Location: Bangalore
Duration: - November, 2013 - July, 2014; Location: Mumbai

Key Deliverables:

- **Colour delivery monitoring:**
  - **Monitored colour delivery** process as per customer-based specifications, material approvals. Sending the developed formula for the individual shade to the commercial desk with proper RMP
  - Supported production, quality assurance
- **Value Engineering:**
  - **Defect supervision:** Supervising the coating operations in order to identify flaws such as blisters and streaks so that their causes could be corrected.
  - **Evaluated pigments and raw materials** for potential new uses and developed technical documents for standardizing the operational activities
- **Other Responsibilities:**
  - **Inventory management:** Procurement and maintenance of raw material and coordination with the Bangalore sector for inventory management
  - **Waste management:** Administering waste management as per company norms
  - Ensured work practices within the scope of **ISO procedures and undertook Lab safety and 5S methodology**

Significant Highlights:

- Gained extensive knowledge on **paint formulation & development**
- Functioned as a **key member in creating formula review for the products** and offered costing to the commercial desk
- Gained **in detailed knowledge on Resins**; offered value added technical support and services through addressing customer queries and provided solutions to the customer complaints on performance bottlenecks
- Acquired knowledge on sustainability and how it is managed globally and locally
- Provided **support to marketing** for field trial and investigation of online product performance, end use application and troubleshooting
- **Handled major clients in Western region**

Academic Projects

In collaboration with IIT Delhi and Srisol
Duration: August, 2016 – February, 2017

- **Project title:** Polyester coating compositions containing organoclay modified with non-ionic modifier having improved dispersibility
- **Description:** The employment of non-ionic modifier like hyperbranched polymer (HBP) to modify nanoclay and the dispersion of modified nano clay in solvent based polyester coating system has been studied in this investigation
- **Technical Skill:** Gained brief knowledge on working and operating principles of DSC, XRD, different spectrographic techniques e.g., **FTIR, IR, UV, NMR**, **Gas and Column Chromatography, particle analyser**

M.Tech. Project (In collaboration with GAIL India)
Duration: Jun, 2015 –May, 2016

- **Project title** - Studies on nanoclay based Fire Retardant Polyolefin Nanocomposite
- **Project Supervisors** - Prof. Mangala Joshi
- **Description** - A flame retardant polyolefin nanocomposite was prepared based on unmodified halloysite nanotube and conventional intumescent fire-retardant system to obtain lowest heat release rate, UL 94 V-0 rating and LOI>27
- **Technical Skills:**
  - Acquired practical knowledge on **DSC, TGA, WAXRD, SEM,** Mechanical Testing (**Tensile, Flexural, Impact testing**), **Melt Flow Index, Flame Tests**
  - Gained hands on experience on processing techniques like **Twin screw extrusion, Injection Moulding, Micro Injection Moulding, Compression Moulding, Microcompounder**

B.Tech. Project
Duration: Aug, 2012 - May, 2013

- **Project title:** Green synthesis of gold nano particles
- **Project Supervisor:** Dr. Dipankar Chattopadhaya
- **Description:** Synthesised gold nano particle by using pure cellulose and gold chloride solution and performed various characterisation

Industrial Project
Crest Composite and private limited
Duration: June, 2012 - August, 2012

- **Project title:** A) UV curing of vinyl ester
  B) Putty preparation and its application
- **Description:** Synthesised UV curable resin from recycled polyester resin and monitor the curing time in presence of day light and UV light chamber
  Studied on different kind of putty preparation and their curing behavior

Learning and Development

As a freelance consultant in Biocrux India Private Ltd

- **Key Deliverables:**
  - Acquired sound knowledge on project subjects by thorough and vast literature survey
  - Provided support to the projects' planning by making reports based current on literature and published patents

- **Projects:**
  - **Depolymerisation of PET in Extruder:** This study investigates a single-step, extrusion-based process to depolymerize polyethyleneterephthalate (PET). The twin-screw extruder can convey the polymer and continuously create a fresh surface area that facilitates penetration of the depolymerizing agent into the polymer
  - **Hard surface cleaner and WC cleaners:** It is a detail study of innovation of cleaners which are applicable on hard surface like bathroom floor tiles and wall tiles, sinks, tubs etc. These types of cleaners remove soil or soap scum from hard surface
  - **Different routes for (Polyaniline) PANI synthesis**

Publication

Mangala Joshi, Bhupendra Singh Butola, Alok Kumar Srivastava, Jaivinder Singh, Anasuya Roy Choudhury. **Flame retardant Nanocomposire composition**, Indian Patent Number **IN201711023390**, January 4, 2019.

Scholastics

Qualifying Examinations

Degree/ Examinations	Institute	CGPA/ %Marks	Year of Passing
M. Tech in Polymer Science & Engineering	Indian Institute of Technology, Delhi	9.10	2016
B.Tech in Polymer Science & Technology	University of Calcutta	8.17	2013
B.Sc. in Chemistry (Hons.)	Barrackpore Rastraguru Surendranath College	58.25%	2010
WBCHSE	Halisahar Ramprosad Vidyapith	74.8%	2006
WBBSE	Halisahar Ramprosad Vidyapith	77.12%	2004

All India Examination- GATE- (GATE rank 72 in Engineering Science, 2014)

Certificates

Course Name	Institute	Year	Marks Obtained
HMX Fundamentals - Immunology	Harvard Medical School (HMX online course)	2020	93%
HMX Fundamentals - Genetics	Harvard Medical School (HMX online course)	2020	89%
QMB1: Quantitative Methods for Biology	Harvard University (EDX online course)	2020	73%
7.28.1x: Molecular Biology – DNA Replication and Repair	Massachusetts Institute of Technology (EDX online course)	2020	74 %
Bio-Informatics:Algorithms and Applications	Indian Institute of Technology Madras (NPTEL Course)	2020	75%
Cell culture technologies	Indian Institute of Technology Kanpur (NPTEL Course)	2020	75%
Medicinal Chemistry	Indian Institute of Science & Research, Pune, (NPTEL Course)	2020	83%
Biochemistry	Indian Institute of Technology,Kharagpur (NPTEL course)	2019	75%
Experimental Biochemistry	Indian Institute of Technology,Kharagpur (NPTEL course)	2019	66%
Fundamentals of Immunology: Innate Immunity and B-Cell Function	Rice Univercity (Coursera certificate course)	2019	91.24%
Understanding Prostate Cancer	Johns Hopkins University (Coursera certificate course)	2019	95%
Introduction to the Biology of Cancer	Johns Hopkins University (Coursera certificate course)	2017	96.6%

Personal Details

- **Date of Birth:** 19th September, 1988
- **Address:** Halisahar New Purbachal, P.O. - Nabanagar, Dist-24 Parganas (N), Pin-743136, West Bengal.
- **Marital Status:** Single
- **Languages**: English, Hindi, Bengali
- **Other Interests**: Teaching, Reading Abstract philosophy, Art history, Drawing, , listening instrumental music, travelling, and exploring new places.

Declaration

I hereby declare that the above-mentioned information is true and complete to the best of my knowledge.

Signature: Anasuya Roy Chowdhury
Date: 16th November, 2021