

K. BALASUBRAMANIAN

1, Sivam Block, Vignesh Flats, 8, Ammamandapam Road, Trichy-620006, Tamil Nadu.
rockchemicals@gmail.com; 93451 51280 (mobile); 0431-2431764 (landline)

Summary

Expertise in nanotechnology, water treatment and chemicals industries with 30+ years of experience working with and supplying products to leading companies and organizations across multiple industries. Currently seeking opportunities to further contribute to the development of nanotechnology, share knowledge with research and educational institutions, as well as to mentor and grow the next generation of leaders.

Experience

- Recently we have developed Nano products in fertilizer a future generation products in agriculture. Nano fertilizers are very versatile in crop growth and productivity at much lower concentration levels. We have developed Nano fertilizers as water soluble powders that are stable for storage. These are unique and first of their kind.
- 11+ years with pesticides formulation companies. As Chief chemist, responsible for production, Quality control, Developing Newer formulations etc. based on Bureau of Indian Standards (BIS) specifications. Also trained junior team members for their routine work.
- As a trainee at CLRI, Adyar, Chennai during 1979. for improving knowledge in testing pesticides by instrumentation methods and developing products like micro fertilisers for agriculture and water treatment chemicals for industrial applications.
- For the past 43 years, I am running my own water treatment chemicals company that manufactures Antiscalants, Corrosion inhibitors, Biocides, and Descaling compounds for cooling water systems and low and medium pressure boilers besides RO membrane treatment chemicals. Our uniform quality and problem solving approach along with encouragement given by our valuable customers have enabled our company to excel in addressing customer needs.
- The repeated purchase orders (POs) given by our customers for more than 40 years have made us stable in our field.
- Our micronutrient formulations developed during 1979 were given to our associates who were about to start a new company. We assisted them with manufacturing strategy in the year 1982 and the company is now well grown as a limited company manufacturing not only micronutrients but also pesticides, fertilisers and sulphuric acid.
- Moreover we have also developed household products like Speciality Detergents, neem oil-based Floor Cleaners, Dishwashing Liquid etc.. We have further developed formulations for toothpaste, pain balms and ointments mostly from ayurvedic compounds.

Example Case Studies

- We have evaluated several cost saving and energy saving methods with our treatment chemicals. For example, in an oil company near Karaikudi, a 6 ton boiler was fully fouled by deposits (scales) after 20 years of operation. It was consuming 22 tons/day of fuel as against the recommended consumptions of 16 tons/day of fuel. Moreover they were about to condemn that boiler and were thinking of erecting a new boiler of the same capacity that would have necessitated additional investments of several lakhs rupees. However, we were given an opportunity to descale their boiler system. We undertook the job and completed it successfully. The same boiler is still running for more than 15 years till date smoothly and the fuel consumption is maintained on par with the recommended amount of 16 tons/day.
- One of the biggest paper mills in the country, based out of Erode, Tamilnadu was facing a temperature problem in a cooling water system of 21 lakh liters of water in circulation which was maintained normally between 30-32 degrees Celsius. This had shot up to 35 degrees Celsius and that increased temperature was beginning to create problems in their chlorine dioxide plant interconnected to that cooling water system. They were advised by multinational companies to shut down for 15 days in order to carry maintainance work. The cost impact from this proposed shutdown would have run to several crores of rupees. At that time, we were given a chance for maintainance without shutdown to bring down the temperature to 30 degrees Celsius. We successfully undertook the work for 15 days and brought down the cooling water temperature to the desired level with our treatment chemicals through online treatment without affecting the metals involved in the respective systems.

Education Qualifications

M.Sc., Analytical & Inorganic Chemistry, University of Madras

