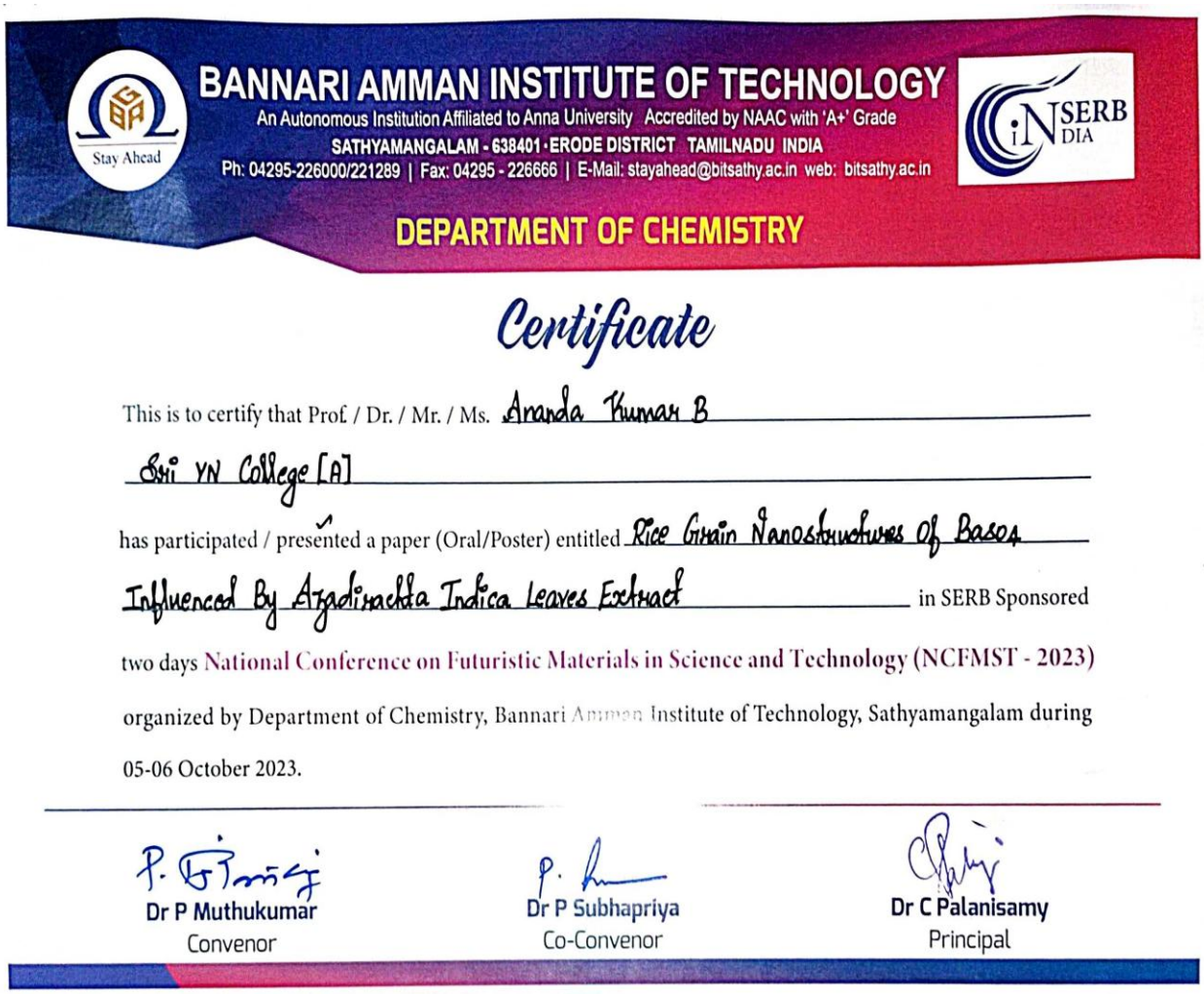
NATIONAL CONFERENCE

Dr B. Ananda Kumar, Lecturer in Chemistry, Sri YN College (A), Narsapur, has attended and presented a paper entitled "Rice Grain Nanostructures of $BaSO_4$ Influenced by Azadirachta Indica Leaves Extract" in SERB Sponsored two days National Conference on Futuristic Materials in Science and Technology (NCFMST – 2023) organized by Department of Chemistry, Bannari Amman Institute of Technology, Sathyamangalam during 05-10-2023 & 06-10-2023.



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This is to certify that Prof. / Dr. / Mr. / Ms. Ananda Kumar B

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has participated / presented a paper (Oral/Poster) entitled Rice Grain Nanostructures of Baso4 Influenced By Azadirachta Indica Leaves Extract in SERB Sponsored two days National Conference on Futuristic Materials in Science and Technology (NCFMST - 2023) organized by Department of Chemistry, Bannari Amman Institute of Technology, Sathyamangalam during 05-06 October 2023.

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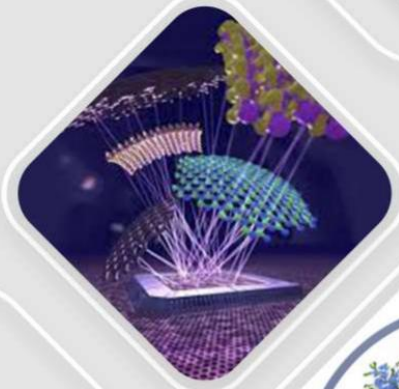

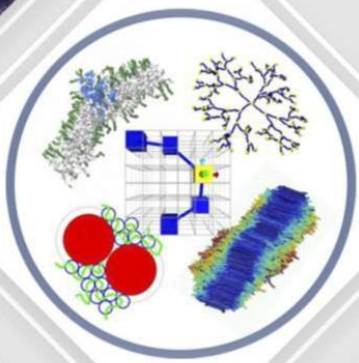

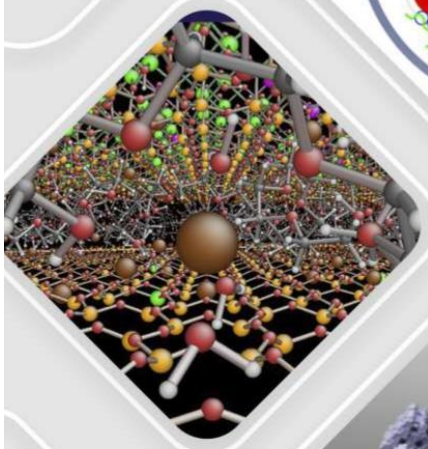

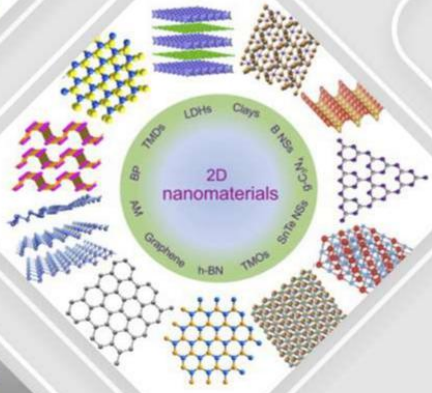

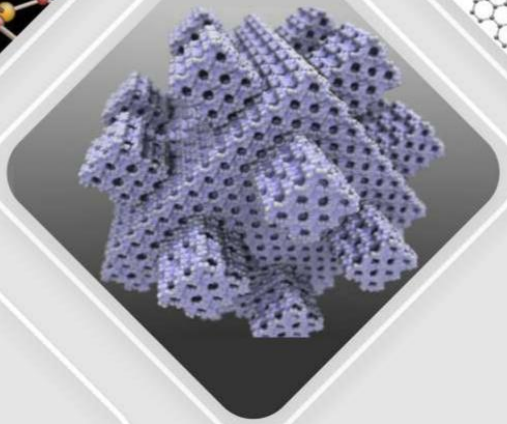

ISBN No:
978-93-5996-579-6

NATIONAL CONFERENCE ON FUTURISTIC MATERIALS IN SCIENCE AND TECHNOLOGY (NCFMST - 2023)

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ISBN 978-93-5996-579-6

AB 98

Rice Grain Nanostructures of $BaSO_4$ Influenced by Azadirachta Indica Leaves Extract

B. Ananda Kumar[1], S. Saravanan[2*], S.B. Ronald[3], Ch. Udaya Bhaskara Rao[4]

[1,3,4]*Department of Chemistry, Sri YN College (A), Narsapur-534275, West Godavari (Dist.), Andhra Pradesh, India*

[2*]*Department of Physics (S&H), Swarnandhra College of Engineering & Technology (A), Seetharampuram, Narsapur-534275 (W.G.), Andhra Pradesh, India*

**Corresponding author: shasa86@gmail.com and Mobile number: (+91) 6369292503*

Abstract

Green synthesizing nanostructures are a growing technology because of their potential applications in various fields. This green synthesis method is feasible, simple, non-toxic and low-cost strategy. It meets the standard of green chemistry, high crystalline nature and morphological structures. This work, green synthesis of BaSO4 nanostructure prepared using Azadirachta indica leaf extract, barium chloride dehydrate and anhydrous sodium sulphate as source materials by co-precipitation method. The as-synthesized BaSO4 nanostructures were subjected to different characterization techniques for their structural, functional, morphological and elemental studies by using XRD, FTIR, SEM and EDX. XRD reveals the orthorhombic crystal phase with sharp diffraction phase. SEM studies evidenced the rice grain like structures with the average diameter of 71.36 nm. Furthermore, a better understanding of this biological phenomenon may provide new insights for enhancing nanomaterials for the future.

Keywords: Green synthesis, $BaSO_4$, Nanostructures, XRD, SEM, EDX

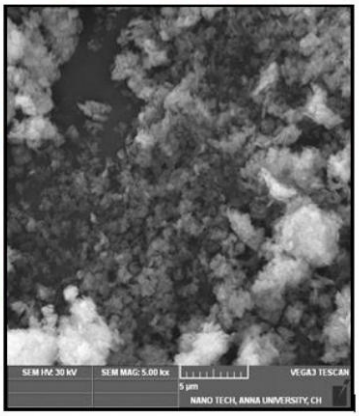

Fig.1. The SEM morphological images of $BaSO_4$ nanostructures

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