



Nuclear SciTech

Leading Sustainable Development

This edition of the BARC Newsletter showcases the latest breakthroughs in nuclear science and technology. Our feature articles highlight significant advancements across multiple disciplines, including developing accident-tolerant fuel coatings, innovative approaches in plasma spectroscopy, and enhanced used fuel management protocols. Recent research on cold atmospheric plasma for dental applications demonstrates the expanding potential of nuclear technologies in healthcare settings.

We are pleased to present a summary of research on natural isotope applications for groundwater management, underscoring our dedication to environmental stewardship. This issue also recognizes excellence through international acknowledgment of distinguished researchers in solid state physics subject.

National Science Day 2025 celebrations at BARC highlighted nuclear energy's vital role in India's self-reliance and sustainability while honoring Sir C.V. Raman's legacy. Led by the Materials Group with the theme "Transition to Clean, Green Viksit Bharat: Advanced Materials & Nuclear Technology", the three-day program attracted students from various schools. These young participants experienced hands-on demonstrations, engaged in interactive discussions with scientists, and guided tours to research facilities all designed to inspire them to pursue nuclear science and technology. The year's first Trombay Colloquium, delivered by Dr. Samir V. Kamat on defence sector R&D, articulated several key advancements and strategic initiatives undertaken by India in the defence sector and allied domains.

We invite you to explore these developments in shaping our mission of the clean & green energy future.

Shri Manoj Singh

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