

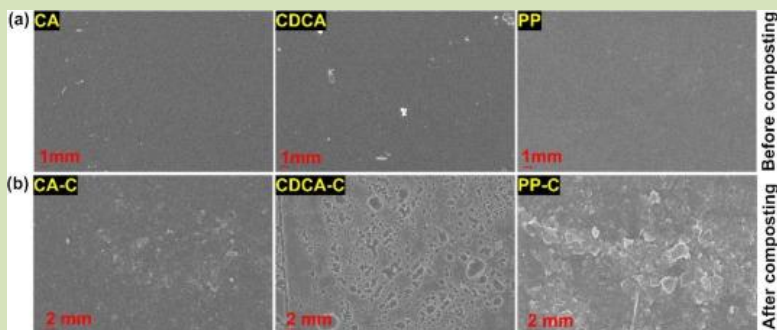


INFOWATCH



An In-house Monthly Communication (July, 2026)

CSIR-NEIST Develops Biodegradable Smart Packaging Film for Safer Food Preservation



Biodegradability study of CA, CDCA and PP Films.

CSIR-NEIST researchers developed an innovative cellulose acetate-based biodegradable polymeric nanocomposite film that offers a sustainable solution for food packaging while improving the efficiency of solar drying. The research combines agricultural waste-derived cellulose acetate with carbon dots synthesized from citric acid to create an eco-friendly material with multiple functional advantages. The study introduces a dual-purpose smart packaging system that not only protects food during storage and transportation but also serves as an efficient UV-shielding cover for solar drying. By regulating ultraviolet radiation and moisture transfer, the packaging helps preserve the natural colour, nutrients, and quality of agricultural produce while protecting it from rain, dust, insects, and other external contaminants. The fabrication process involves the synthesis of carbon dots through solar drying technology, followed by the development of the biodegradable polymeric composite film. The material was extensively evaluated for its UV-shielding capability, water vapour transport, drying performance, biodegradability, and biocompatibility before being tested in practical food-packaging applications. The developed nanocomposite film demonstrated excellent mechanical strength, flexibility, and controlled moisture permeability, making it suitable for preserving fresh fruits, vegetables, and other agricultural products. Its ability to accelerate drying while maintaining food quality eliminates the need for secondary packaging, reducing both processing time and packaging waste. Apart from

enhancing food preservation, the technology offers an environmentally responsible alternative to conventional plastic packaging. The biodegradable material naturally decomposes after use, helping reduce plastic pollution while supporting sustainable food processing practices. Its cost-effective production process also makes it a promising option for large-scale agricultural and commercial applications. The research, carried out by Krishna Mahal Hazarika, Achyut Konwar, Sudepta Baruah, Rituraj Konwar and Swapnali Hazarika, has been published in the International Journal of Biological Macromolecules.

CSIR-NEIST Converts Tea Factory Waste into High-Performance Energy Storage Material

CSIR-NEIST developed an innovative method to transform tea factory waste (FTW) into high-performance three-dimensional (3D) crumpled graphene, offering a sustainable solution for advanced energy storage applications. The study demonstrates how industrial biomass waste can be converted into a value-added carbon material, contributing to cleaner technologies and the circular economy. India generates nearly 24.1 million kilograms of tea factory waste annually, much of which is discarded or remains underutilized. Addressing this challenge, the research employs an intercalation-driven, low-temperature graphitization process using potassium carbonate (K_2CO_3) to convert tea waste into porous 3D crumpled graphene. The low-temperature approach makes the process energy-efficient, scalable, and suitable for large-scale production. The synthesized graphene possesses an ultrahigh surface area and a unique three-dimensional porous structure, enabling rapid charge transport and efficient ion movement. These characteristics make it an excellent electrode material for both electric double-layer capacitors (EDLCs) and lithium-ion hybrid capacitors (LIHCs), resulting in enhanced energy storage performance. Prototype energy storage devices fabricated using the developed material successfully powered an LED and a real-time clock, demonstrating its practical potential for next-generation energy storage systems. The findings highlight the capability of biomass-derived graphene to

deliver high performance while reducing dependence on conventional carbon sources. The research was carried out by Debashish Sarmah, Abhishek Hazarika, Arnab Dowerah, Shreeram Pandit, Manish Dev Sharma, and Binoy K Saikia, and has been published in the Journal of Power Sources.

CSIR-NEIST Researchers Develop Advanced Landslide Susceptibility Map for Nagaland

CSIR-NEIST developed a comprehensive landslide susceptibility assessment for the Kohima-Mokokchung region of Nagaland using advanced ensemble machine learning techniques. The study provides a scientific framework for identifying landslide-prone areas, supporting disaster risk reduction and sustainable land-use planning in one of India's seismically active mountainous regions. The research integrates three machine learning algorithms- Random Forest (RF), Extreme Gradient Boosting (XGBoost), and Light Gradient Boosting Machine (LightGBM)-to generate a highly accurate predictive model. Using documented landslide records and 14 key conditioning factors, the ensemble approach produced a detailed susceptibility map capable of identifying areas with varying levels of landslide risk. The analysis revealed that more than 22% of the study area falls within the high to very high landslide susceptibility zones, encompassing over 95% of the documented landslides. The study further identified factors such as elevation, slope, distance to rivers and faults, Normalized Difference Vegetation Index (NDVI), and weak lithological formations as the most significant contributors to landslide occurrence in the region. Among the tested approaches, the ensemble machine learning model demonstrated superior predictive performance, making it a reliable tool for operational landslide susceptibility mapping. Statistical validation confirmed the model's robustness, highlighting its potential for supporting evidence-based decision-making in hazard-prone regions. The generated susceptibility map offers valuable guidance for infrastructure development, road construction, urban planning, and disaster preparedness. It can assist policymakers and planners in prioritizing risk reduction measures along critical transportation corridors, particularly the National Highway-2 (NH-2) and other vulnerable areas across Kohima, Wokha, and Mokokchung districts. The findings also support sustainable land-use regulation, slope stabilization, afforestation initiatives, and targeted engineering interventions to minimize landslide hazards. The research was carried out by Ms. Devika

Maisnam, Dr Manoj Kumar Phukan, Dr V M Tiwari, and Dr Sarbajit Dash, and has been published in the journal, Natural Hazards.

CSIR-NEIST Develops Sustainable Cellulose-Chitosan Composite Film from Waste Print Paper for Biomedical Applications

CSIR-NEIST developed a biodegradable cellulose-chitosan composite film by converting waste print paper into a high-value biomaterial for potential biomedical applications. The study demonstrates an innovative approach to waste valorization by transforming discarded office paper into a sustainable material suitable for cell attachment and tissue engineering. The research focuses on recovering cellulose from waste print paper through a deinking and alkali treatment process, followed by blending the purified cellulose with chitosan to fabricate a biodegradable biopolymeric film. The resulting composite was subjected to detailed physicochemical characterization and biological evaluation to assess its suitability for biomedical use. The developed film exhibited excellent transparency, flexibility, and enhanced mechanical strength while maintaining improved hydrophilicity and thermal stability. These properties make the material well suited for applications requiring biocompatible and durable scaffolds. In laboratory studies using L929 fibroblast cells, the composite demonstrated 98-99% cell viability along with excellent cell attachment, confirming its non-toxic nature and compatibility with living tissues. By utilizing waste print paper as a raw material, the technology offers an environmentally friendly alternative to conventional biomedical materials while reducing paper waste. The biodegradable composite film has promising applications in skin tissue engineering and regenerative medicine. The scalable and cost-effective fabrication process further enhances its potential for future biomedical and healthcare applications. The research was carried out by Ms. Neha R Thakare, Runjun Duarah, Devpratim Koch, Dr Pankaj Bharali, and Dr Swapnali Hazarika; and has been published in the International Journal of Biological Macromolecules.

NEIST-NEXUS Lecture Series 2026:

The NEIST-NEXUS Weekly Lecture Series 2026 at CSIR-NEIST continued on 03 July 2026 with a lecture by Er Partha Majumder, Scientist-D, titled "Dimensional Stability of Modified Non-Timber Wood: Current Advances and

Future Prospects". Er Majumder presented his research on the chemical modification of two non-timber wood species, *Erythrina lysistemon* and *Ficus racemosa*, aimed at enhancing their dimensional stability and service life. The study demonstrated how treatments using vinyl acetate and acetic anhydride modify the wood structure through ester bond formation, replacing hydroxyl (-OH) groups that are primarily responsible for moisture absorption and dimensional changes. The lecture highlighted that both chemical treatments significantly improved the physical properties of the wood, with vinyl acetate exhibiting greater treatment efficiency and achieving higher weight percentage gain (WPG) than acetic anhydride. These modifications resulted in enhanced dimensional stability, making the treated wood more suitable for long-term structural and commercial applications. Emphasizing sustainability, Er Majumder discussed the growing potential of fast-growing non-timber wood species as viable alternatives to conventional timber. Their improved performance, coupled with rapid availability, could reduce pressure on natural forests while supporting environmentally responsible material production.



Er Partha
Majumder

On 17 July 2026 by Dr Natarajan Velmurugan, Scientist-E, hosted a lecture titled "Microbial Bioprocessing and Bioengineering Strategies for Sustainable Development Goals", highlighting the transformative role of microbial biotechnology in addressing global sustainability challenges through innovative and resource efficient solutions. Dr Velmurugan discussed how microbial bioprocessing and bioengineering are driving sustainable development by enabling waste valorization, circular bioeconomy approaches, and environmentally responsible technologies. He presented the development of a Consolidated Bioprocessing (CBP) system that converts agro-industrial residues into nutritionally enriched and sustainable aquafeed through microbial fermentation, demonstrating an effective strategy for value addition to agricultural waste. The lecture also introduced Artificial Symbiotic Systems (ASS) comprising beneficial microbial consortia designed to improve crop productivity and promote sustainable agricultural practices, particularly in the Himalayan region. These systems offer an eco-friendly approach to enhancing soil health, supporting resilient



Dr Natarajan
Velmurugan

farming, and reducing dependence on chemical inputs. Highlighting future directions in biotechnology, Dr Velmurugan emphasized the integration of microbial biotechnology with metabolic engineering and synthetic biology to develop scalable solutions for food security, sustainable agriculture, and efficient resource utilization.

On 10 July 2026 a lecture was hosted by Dr Sachin Ramesh Rao Geed, Scientist-D, titled "Development of Bioremediation Strategies for Petroleum Waste Management in Refineries, Drilling Sites,



Dr Sachin
Ramesh Rao
Geed

and Offshore Oil Spill Environments". Dr Geed presented the development of specialized microbial consortia capable of remediating refinery sludge, crude oil-contaminated soils, and marine oil spills. These microbial systems offer an environmentally sustainable alternative to conventional cleanup methods by harnessing the natural hydrocarbon-degrading capabilities of microorganisms. The lecture highlighted the isolation and characterization of indigenous hydrocarbon-degrading bacteria from diverse petroleum-contaminated environments, including high-altitude ecosystems. These naturally adapted microbial strains exhibit enhanced stress tolerance and biodegradation efficiency, making them suitable for deployment under a wide range of environmental conditions. Dr Geed also discussed the optimization of bioremediation processes through the use of biosurfactant-producing microorganisms and statistical design approaches to improve hydrocarbon degradation. Concluding the session, Dr Geed emphasized the potential of stress resilient microbial consortia for large scale petroleum waste management in refineries, drilling sites, and offshore spill scenarios.

Events:

CSIR-NEIST Inaugurates OP-12 Biofertilizer Production Unit in Manipur

On 02 July 2026, CSIR-NEIST inaugurated Bioreactor Unit for OP-12 Biofertilizer Production at its Branch Laboratory in Lamphelpat, Imphal. The initiative was undertaken under the leadership of Dr Virendra M Tiwari, Director, CSIR-NEIST, and the facility was inaugurated by the Hon'ble Chief Minister of Manipur, Shri Y Khemchand Singh. Addressing the gathering, the Hon'ble Chief Minister highlighted the vital role of science, innovation, and

indigenous technologies in strengthening the agricultural sector and enhancing farmers' livelihoods.



Dr V M Tiwari, Director, CSIR-NEIST felicitating Hon'ble Chief Minister of Manipur, Shri Y Khemchand Singh.

He appreciated the efforts of CSIR-NEIST in translating scientific research into technologies that directly benefit farming communities.

The event witnessed the participation of nearly 150 farmers, entrepreneurs, scientists, researchers, and government officials, reflecting a strong collaborative commitment towards advancing eco-friendly and self-reliant agricultural practices in Manipur. During the programme, CSIR-NEIST signed Memorandum of Understanding (MoUs) with local entrepreneurs for the commercialization of the OP-12 Biofertilizer Technology. The collaboration is expected to promote sustainable farming practices while creating opportunities for rural entrepreneurship and employment generation across the state.

CSIR-NEIST Hosts NRDC Project Monitoring Committee Meeting



On 06 July 2026, CSIR-NEIST hosted the NRDC Project Monitoring Committee Meeting at the Director's Conference Hall and Dr J N Baruah Auditorium. The meeting was graced by Prof Bhaskar Jyoti Phukan,

Managing Director of Numaligarh Refinery Limited (NRL), along with scientists, project stakeholders and members of the Project Monitoring Committee. The programme commenced with an interaction between Shri Bhaskar Jyoti Phukan and Dr V M Tiwari, Director, CSIR-NEIST, followed by the formal inauguration of the PMC meeting. Dr Tiwari welcomed the dignitaries and highlighted the importance of strengthening industry research collaborations for translating scientific innovations into societal benefits. Prof Phukan also addressed the gathering, emphasizing the significance of collaborative research and technology driven development. During the meeting, Dr Swapnali Hazarika, Nodal Scientist, NRDC, presented the progress of the NRDC project. This was followed by a presentation by Dr Gokul Baishya, Scientist F, CSIR-NEIST, outlining the future work plan based on the brainstorming discussions held during APST 2025. The presentations were followed by detailed deliberations among the PMC members, who reviewed the progress of the project and shared valuable recommendations for its future implementation.

During the interactive session held at the Dr J N Baruah Auditorium, Dr V M Tiwari, Director, CSIR-NEIST, addressed the gathering and highlighted the significant contributions of NRL to the development of the North Eastern region and the nation as well.



Dr V M Tiwari, Director, CSIR-NEIST, delivering his speech.

Dr Tiwari appreciated the leadership of Prof Bhaskar Jyoti Phukan and stated that NRL has been actively promoting innovation across the region while extending valuable support to CSIR-NEIST in advancing the vision of Viksit Bharat.

In his address, Prof Bhaskar Jyoti Phukan spoke about the transformative potential of biorefinery projects in creating both direct and indirect livelihood opportunities for farmers and local communities. He emphasized the importance of

standardizing feedstock and identifying suitable bamboo species for efficient biorefinery operations.



Prof Bhaskar Jyoti Phukan, Managing Director, NRL, addressing the gathering on the occasion.

Prof Phukan also discussed carbon emission reduction strategies, the blending of methanol and ethanol with conventional fuels, and the technical challenges associated with their large scale processing. He noted that the Government has promoted these initiatives as a step toward reducing India's dependence on crude oil imports. A major highlight of the programme was the transfer of the technology titled "Hydroclimatic Indigenous Bacterial Bio-formulation and its Production Process for Faecal Sludge Treatment Plants (FSTPs)" to M/s Ecoweb Lab Pvt Ltd, Jorhat, marking another significant step towards the commercialization of indigenous technologies developed at CSIR-NEIST. The programme concluded with a Vote of Thanks by Dr M R Das, and a group photograph of all participants.

CSIR-NEIST Hosts 'Nano Jatha 2026' to Promote Scientific Awareness and Innovation in Nanotechnology

On 21 July 2026, CSIR-NEIST organised Nano Jatha 2026 programme at its STINER Hub building, a day-long lecture series, roadshow and exhibition aimed at creating awareness about nanotechnology and inspiring students, researchers and young innovators to explore opportunities in the rapidly advancing field. The event was graced by Chief Guest Prof C V Yalamaggad, a distinguished Scientist of Eminence at the Centre for Nano and Soft Matter Sciences (CeNS) in Bengaluru, India, along with 157 participants from different institutions across the region. The programme featured expert lectures, an educational video presentation, an interactive Nano Quiz and an exhibition showcasing innovative projects and research initiatives.



Dr V M Tiwari (left) felicitating Prof C V Yalamaggad, accompanied by Dr Binoy Kumar Saikia.

The event was inaugurated by Dr V M Tiwari, Director, CSIR-NEIST, who welcomed the participants and expressed his gratitude for their enthusiastic presence despite the flood related challenges faced across the region. In his inaugural speech, Dr Tiwari highlighted the significance of nanotechnology and explained the fundamental processes involved in the development of nanomaterials. Emphasising the growing importance, he encouraged students and young researchers to pursue careers in nanoscience and nanotechnology. Dr Tiwari also paid tribute to Nobel Laureate Sir C V Raman, recalling his pioneering scientific contributions and how his research and innovation transformed Indian science despite the limited resources available during his time. Dr Tiwari further highlighted CSIR-NEIST's long-standing contributions to scientific research, technology development and societal welfare, mentioning recent innovations developed by the institute, including biofertiliser technologies that are benefiting the nation. The Chief Guest, Prof C V Yalamaggad, appreciated CSIR-NEIST for organising Nano Jatha and congratulated the organisers for successfully conducting the event despite the prevailing flood situation. In his address, Prof Yalamaggad emphasised the importance of scientific awareness and encouraged greater public engagement with emerging technologies. He also acknowledged the research achievements and prestigious recognitions received by Dr V M Tiwari and Dr Binoy Kumar Saikia, appreciating their significant contributions to research and development. A specially curated video presentation on nanotechnology was screened during the inaugural session, introducing participants to the fundamentals of nanoscience, its diverse applications and its immense potential in addressing future technological challenges.



Prof C V Yalamaggad, felicitating Dr Lakshi Saikia.

During the technical session, Prof C V Yalamaggad delivered an insightful lecture on the fundamentals and emerging frontiers of nanotechnology. He explained the critical role of the interaction between light and materials in designing advanced nanomaterials and discussed the development of optical metamaterials that exhibit unique optical properties by controlling or manipulating the interaction of light in ways not possible with naturally occurring materials.



Dr Rajiv Goswami, Technical Assistant, conducting the Nano Quiz session

The programme also included a Nano Quiz that encouraged active participation from students and researchers, followed by an exhibition featuring innovative projects and research demonstrations at the CSIR-NEIST STINER Hub. The event concluded with a valedictory session followed by a prize distribution ceremony.

CSIR-NEIST Showcases Contributions to Science-Led Development in the North Eastern Region during Hon'ble Union Minister's Review

On 14 July 2026, Dr Jitendra Singh, Hon'ble Union Minister of State for Science & Technology, and Vice President, CSIR, reviewed the progress of Science and Technology

(S&T) institutions across the North Eastern Region (NER) during his visit to Shillong.



Dr V M Tiwari, Director, CSIR-NEIST felicitating the Hon'ble Union Minister, Dr Jitendra Singh, during the event.

The Hon'ble Minister appreciated CSIR-NEIST's significant contributions and commended the presentation. He lauded the impact of the Aroma and Floriculture Mission in NE Region. He encouraged the expansion of chamomile cultivation, appreciated the initiative of forming the Research and Innovation Consortium of the North East (RICH-NE) and institute's pioneering work on Antimicrobial Resistance, recognizing it as the first initiative of its kind in the NER. As a part of CSIR-NEIST's continued efforts to advance science-led development across the North Eastern Region, Director Dr V M Tiwari held a series of meetings with senior government officials in Meghalaya and the North Eastern Council (NEC).



Dr V M Tiwari (left), felicitating Shri R Nanamalai

Dr Tiwari met Shri R Nainamalai, IFS, Secretary, Department of Agriculture & Farmer's Welfare, Govt of Meghalaya, to explore the potential for cultivating Medicinal and Aromatic Plants (MAPs) in coal mining affected areas. The discussion emphasized the use of science driven,

sustainable agricultural practices to restore degraded landscapes while generating sustainable livelihood opportunities for local communities.



Dr B D R Tiwari(left) & Dr Pooja Pandey(right) felicitating Dr V M Tiwari

Dr Tiwari also paid courtesy visits to Dr B D R Tiwari, IAS, Chief Electoral Officer and Commissioner & Secretary, Govt of Meghalaya, and Dr Pooja Pandey, IAS, Commissioner & Secretary, Home Department, Govt of Meghalaya. During these interactions, he highlighted CSIR-NEIST's ongoing scientific and technological initiatives aimed at promoting innovation, sustainability, and socio economic development across the region.



Shri Satinder Kumar Bhalla, felicitated by Dr V M Tiwari

In another significant engagement, Dr Tiwari met Shri Satinder Kumar Bhalla, I T S, Secretary, North Eastern Council (NEC), to discuss CSIR-NEIST's key research and technology-driven programmes in the North Eastern Region. The meeting focused on strengthening institutional collaboration and aligning scientific innovations with the developmental priorities of the region, reaffirming a shared commitment to fostering inclusive and sustainable growth through science and technology. This version is suitable for inclusion in a CSIR-NEIST annual report, institute magazine, or newsletter.

CSIR-NEIST in Print Media

CSIR-NEIST hosts Nano Jatha 2026 to promote nanotechnology awareness among students

CHRONICLE NEWS SERVICE Leadership of CSIR-NEIST Director Dr V. M. Tiwari and convened by Scientist F Dr Binoy K. Saha, the day-long programme featured expert lectures, interactive sessions and hands-on experimental training. Around 150 students from 13 educational institutions across Assam participated in the event. Nano Jatha is a nationwide science outreach initiative conducted in collaboration with the Centre for Nano and Soft Matter Sciences (CNS), Bengaluru, a precursor to Nano 2026. The programme commenced at the STINER Hub with an inaugural address by Dr Tiwari, who highlighted the potential of nanoscience research in addressing real-world challenges in areas such as energy, environmental sustainability and materials science. The keynote plenary lecture was delivered by Prof C. V. Yoganand, Distinguished Scientist and Professor at CNS, Bengaluru, who shared insights into soft matter architectures, liquid crystals and functional materials. Another plenary lecture was delivered by Dr Lakshi Saha, Scientist F, CSIR-NEIST. The technical sessions also included a Nano Quiz conducted by Dr Rajiv Gowanli, Technical Officer, CSIR-NEIST, which tested participants' knowledge of nanoscience and related disciplines. During the afternoon session, participants visited live project exhibitions and experimental demonstrations at the STINER Hub, where they gained practical exposure to nanomaterial synthesis techniques and advanced analytical instrumentation, complementing their classroom learning with hands-on laboratory experience. The programme concluded with a valedictory session during which prizes were distributed to winners of the Nano-Quiz, while the enthusiastic participation of students from colleges across Assam was also acknowledged.



Participants of the Nano Jatha event along with the organizing team

Eastern Chronicles, Guwahati edition, 23-07-2026, Page No. 2



Asom Aditya, Dibrugarh edition, 24-04-2026, Page No. 8

Papers Published

In International Peer Reviewed Journals

- Dhanjit Das, Kamal Nayan Medhi, Deva Kanta Rabha: An Innovative Solar-Electric, Steam-Cum Hydro Distillation System for Small-Scale Agricultural Processing: A Case Study on Extraction of Oil From Black Pepper, The Journal of Food Process Engineering 2026 Volume 49, Issue 7, July 2026
<https://onlinelibrary.wiley.com/doi/10.1111/jfpe.70681> (IF: 3.5)
- Anurag Phukan, Moushumi Hazarika, Tupu Narzary, Nazim Uddin Afzal, Prasenjit Manna, Suman Koirala, Kapil Ursal, Parimal Kar, Debasish Baruah, K B Kayastha, Chandan Tamuly: Bio-Functional Characterization of Buckwheat: Phytochemical Fingerprinting, Antidiabetic, Anti-Urease, and Molecular Dynamics Simulation Insights, Chemistry Select 2026 "Volume: 11 Issue: 25 Pages: e73783
<https://chemistry-europe.onlinelibrary.wiley.com/doi/10.1002/slct.73783> Jul-26 2 (IF: 2)
- Anwesha Dutta Hazarika, Devika Maisnam, Devojit Bezbaruah & Manoj Kr Phukan: Integrated assessment of active tectonics using geomorphic and seismotectonic approaches: a case study of the Dikhow River Basin, North East India Journal of Earth System

Science 2026 Vol. 135, article number 183 (2026)
https://link.springer.com/article/10.1007/s12040-026-02902-4?utm_source=getftr&utm_medium=getftr&utm_campaign=getftr_pilot&getft_integrator=clarivate Jul-26 (IF: 2.1)

4. Monojit Kumar Roy, Abhilash Bhattacharjee, Bidisha Borah & Anil Kumar Singh: Soil to host environmental determinants fueling horizontal gene transfer and global AMR dissemination, *Folia Microbiologica* 2026
https://link.springer.com/article/10.1007/s12223-026-01545-8?utm_source=getftr&utm_medium=getftr&utm_campaign=getftr_pilot&getft_integrator=clarivate Jul-26 (IF: 3.1)

5. Lunasmrita Saikia, Partha Pratim Dutta, Dhurbajyoti Gogoi, Nazim Uddin Afzal, Prasenjit Manna, Douglas Law, Santa Mandal, Bhaskarjyoti Gogoi, Manish Kumar Gautam, Saikat Sen: A Bioactive Fraction of *Euphorbia antiquorum* Stem Powder Ameliorates High-Fat High-Fructose Diet/Streptozotocin-Induced Diabetes via GLUT-4 Modulation *Chemistry & Biodiversity* 2026; 23:e71521
<https://onlinelibrary.wiley.com/doi/epdf/10.1002/cbdv.71521> Jul-26 (IF: 2.9)

6. Debasish Borah; Anuranjit Gogoi; Gauri Hazarika; Saurabh V. Sawake; Sarifa R. Fernandes; Narendra Nath Ghosh; Pravin G. Ingole: Interface-Engineered SiO₂@GO Nanohybrids for Enhanced CO₂ Separation in Thin-Film Nanocomposite Membranes, *ACS ES&T Engineering* 2026
[https://pubs.acs.org/aecco/article/doi/10.1021/acsestengg.6c00197/5202019/Interface-Engineered-SiO₂-GO-Nanohybrids-for](https://pubs.acs.org/aecco/article/doi/10.1021/acsestengg.6c00197/5202019/Interface-Engineered-SiO2-GO-Nanohybrids-for) Jul-26 (IF: 6.3)

7. Ankumoni Saikia, Koushik Dutta , Binoy Kumar Saikia , Biswajit Saha , Ajit Singh" Tailoring the type of monomer yield via chemical modification of rice straw-derived lignin, *Bioresource Technology Reports* 2026 Vol. 35, September 2026, 102923
<https://www.sciencedirect.com/science/article/pii/S2589014X26003816> Jul-26 (IF: 5)

8. Nilim Kumar Saikia, Mantesh Muttappagol, Arpita Talukdar, Twahira Begum, Mohan Lal, Shridhar Hiremath First Report of Ageratum Enation Virus and

Its Associated DNA Satellites Infecting *Matricaria chamomilla* L., in India *Journal of Phytopathology* 2026 174:e70367
<https://onlinelibrary.wiley.com/doi/full/10.1111/jph.70367> Jul-26 (IF: 0.5)

9. Sujata Brahma; Yogesh Kumar; Biplab Kumar Kuila ; Arpita Maurya; Deepmoni Brahma; Fungbili Basumatary; Bipul Das; Sanjay Basumatary" Engineering of a visible light responsive SrFeO₃/Bi₂O₂CO₃/g-C₃N₄ direct dual Z-scheme heterojunction for boosting charge separation enabling enhanced photocatalytic degradation of tetracycline and other pollutants *New Journal of Chemistry* 2026
[https://pubs.rsc.org/nj/article/doi/10.1039/d6nj01692h/1285697/Engineering-of-a-visible-light-responsive-SrFeO₃](https://pubs.rsc.org/nj/article/doi/10.1039/d6nj01692h/1285697/Engineering-of-a-visible-light-responsive-SrFeO3) Jul 26 (IF: 2.6)

Farewell

The following member(s) of the staff have retired from Council's service on superannuation from CSIR-NEIST w. e. f. 31 July, 2026:

1. Mr Hemanta Sonowal, Driver
