



CSIR-NML NEWSLETTER OCTOBER- 2020

NOVEMBER 28, 2020

CSIR-NML, JAMSHEDPUR
RESEARCH PLANNING & BUSINESS DIVISION



70 years of unalloyed excellence

(1950-2020)

शांति-सत्य-औद्योगिक-अनुसंधान-परिषद्, भारत

SUMMARY OF SIGNIFICANT ACTIVITIES

For the period October,2020, CSIR-National Metallurgical Laboratory

1. Technology Development (New Product/Process Technologies)

Nil

2. Agreement(s) Signed

Nil

3. Patent(s)/Copyright(s) Filed

S.No.	Title
1.	Development of hot-dip coating of Al-Si-X (X=Mg, Cu, Sc and Sr) on steel substrate with excellent high-temperature formability for hot forming application
Inventors: Biraj K. Sahoo, M. G. Walunj, A. Chakraborty, V. C. Srivastava, R. Pais, L. C. Pathak, Gopi K. Mandal signee: CSIR & TATA Steel Notification No: NML/PAT 0594/2020/IN	

4. S&T services that have created a national/visible impact

- **Synthesis of new 2D materials other than graphene for energy application**

The main objective was to explore the synthesis and structure-property correlation of new generation 2D materials through parallel theoretical calculations and experimental investigations. In this project we concentrated on exfoliation of 2D materials based on metal chalcogenides and MXene. i. Development of easy techniques for 2D materials in good quantity. ii. Scientific contribution of 2D material development. iii. Understanding the band gap variation of 2D metal chalcogenides

iv. Correlation of theoretical calculation with the experimental results v. Application of new 2D materials in H₂ generation and supercapacitors.

5. Details of important Workshop(s)/Symposia(s)/Conference(s)/Training Course(s)/ Meeting(s) Organized

- **CSIR-NML and CII webinar (13th October 2020)**

A webinar was organized by CSIR-NML jointly with CII on the theme - "Extraction of Strategic Metals: Opportunity and Business Prospects".

- **Webinar on "Role of Intellectual Property Rights in Innovation Management for MSMEs"**

Micro, Small and Medium Enterprises (MSME) sector is a highly vibrant and dynamic sector of the Indian economy and plays a very crucial role in providing large employment opportunities. In today's global competitive business scenario, issues pertaining to Intellectual Property Rights (IPRs) have become quite critical for their sustainability. In order to compete with global standards and technological challenges, MSMEs are now focusing on the management of their IP assets to achieve competitive advantage. In this connection NML-IPFC organized a webinar.

6. Details of any New Facilitie(s)

Nil

7. Details of any outstanding Honor(s)/Award(s) received by the staff

Nil

8. Any other items considered to be significant

- Dr. Rajiv Maharashi, Consultant Neuro, and spine surgery, Brahmananda Narayana Multispecialty Hospital, Jamshedpur delivered a talk on 'Spine & Back pain' at CSIR-NML on 16-10-2020.
- Mr. Premjeet Singh, Assistant Section Officer (S&P) superannuated from CSIR-NML on 31-10-2020.
- Mr. Mona Bhattacharjee, Multi Tasking Staff superannuated from CSIR-NML on 31-10-2020.
- Mr. Shankar, NML MC superannuated from CSIR-NML on 31-10-2020.



- **Vigilance Awareness Week (27th October to 2nd November 2020)**

The occasion was celebrated at the laboratory on virtual platform. The theme of Vigilance Awareness Week was "Satark Bharat, Samridh Bharat" (Vigilant India Prosperous India)"

- **Invited Talk Delivered by Staff**

Dr. Sarmistha Palit Sagar, Sr. Principal Scientist delivered a lecture on the "Sensors for non-destructive testing & evaluation" via on-line mode on the 3rd of October in ATAL FDP on Sensor Technology organized by DECE, NIT Jamshedpur during 1st to 5th October. She was also a member of the "National Advisory Committee" in the event.



- **Staff Transferred from CSIR-NML**

Dr. (Ms.) Mamta Sharma, Sr. Scientist and Dr. Rajneesh Kr. Gupta, Principal Scientist were transferred to CSIR HQ, New Delhi



9. Scientific & Technical Services rendered

During this period the following industrial houses viz. **Bharat Coking Coal Limited-Dhanbad, CMPDIL-Singrauli, DRDO-New Delhi, DST-New Delhi, GTRE-Baangaluru, M/s Shaw Metal-Jamshedpur, M/s Tata Blue Scope Steel Pvt. Ltd.-Pune, M/s. Bharat Forge Limited-Maharashtra, M/s. Inspectorate Griffith India Pvt. Ltd., M/s. KCS Quality Inspection Pvt. Ltd., M/s. Adani Power Limited-Ahmedabad, M/s. Amit Test and Calibration Centre-Delhi, M/s. Annor Test Labs & Eng. Services Pvt. Ltd., M/s. CESC Limited-Kolkata, M/s. D B Power Limited-Chhatisgarh, M/s. Gaurav Scientific & Chemicals- Raipur, M/s. Indian Institute Of Technology-Madras, M/s. IREL India Limited-Odisha, M/s. Krish Scientific-Raipur, M/s. Prominenet Equipment- Bhubaneswar, M/s. Sandeep International-Gobindgarh, M/s. Sastha Scientific Agencies-Bangalore, M/s. Tata Steel Limited-Ramgarh, M/s. Vishal Traders-Gujarat, Mahanadi Coal filed Limited-Odisha, Tata Power Company Ltd.-Jamshedpur, Tata Steel Limited- Jamshedpur, received technical and scientific support from NML in the area of chemical analysis and physical test of their raw materials and finished products.**

10. ECF Details

External Cash Flow (ECF) Status During: 2020-10-1 TO 2020-10-31:

Category	TOTAL (Figures in Rs. Lakh)
Sponsored R&D	107.47218
Grant-in-Aid R&D	52.00528
R&D Consultancy	0
Technical Services	14.37001
Collaborative/ Cooperative R&D	97.881
Premia/Royalty	0
TOTAL	173.84747



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