



## तकनीकी पत्रिका विषय-सूची

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(Technical Journals)

(A Monthly Current Awareness Service from Technical Journals)

**Vol. 09 No. 09, September, 2025**

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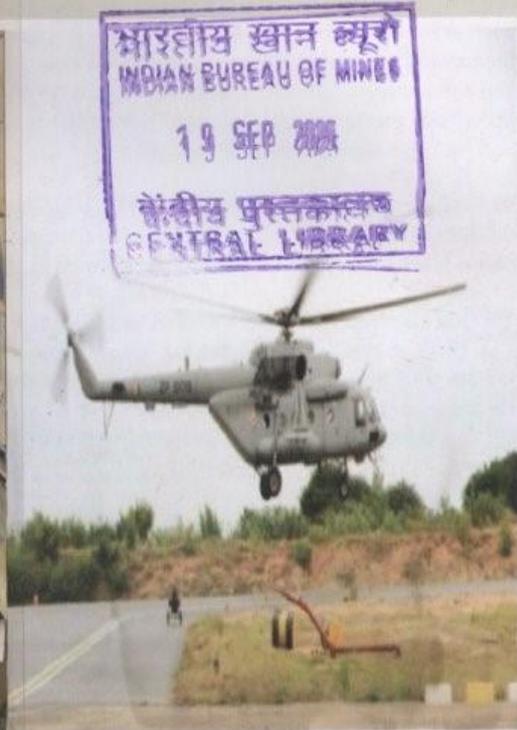
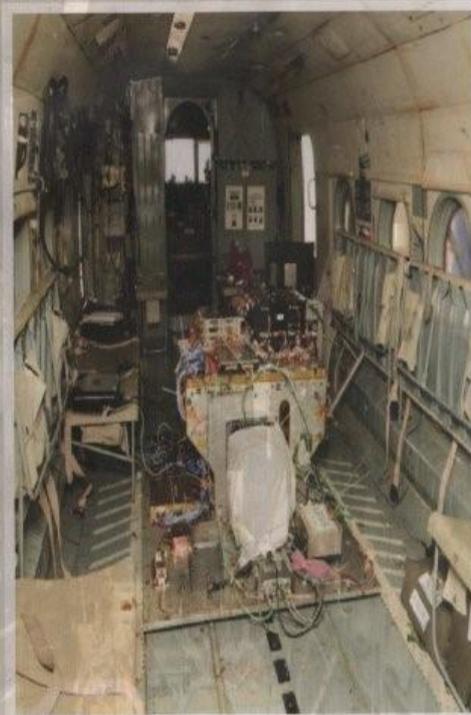
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# CURRENT SCIENCE

Volume 129 Number 3

10 August 2025



**Features of the Chandrayaan-3 radar altimeter**

***Ulva*: The Green Seaweed Shaping India's Future**

**Exploring the Growth Potential of *Erethistes pusillus***

Current Science Association



Indian Academy of Sciences

INDIAN BUREAU OF METEOROLOGY

Founded 1932

19 SEP 2025

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ISSN:0011-3891

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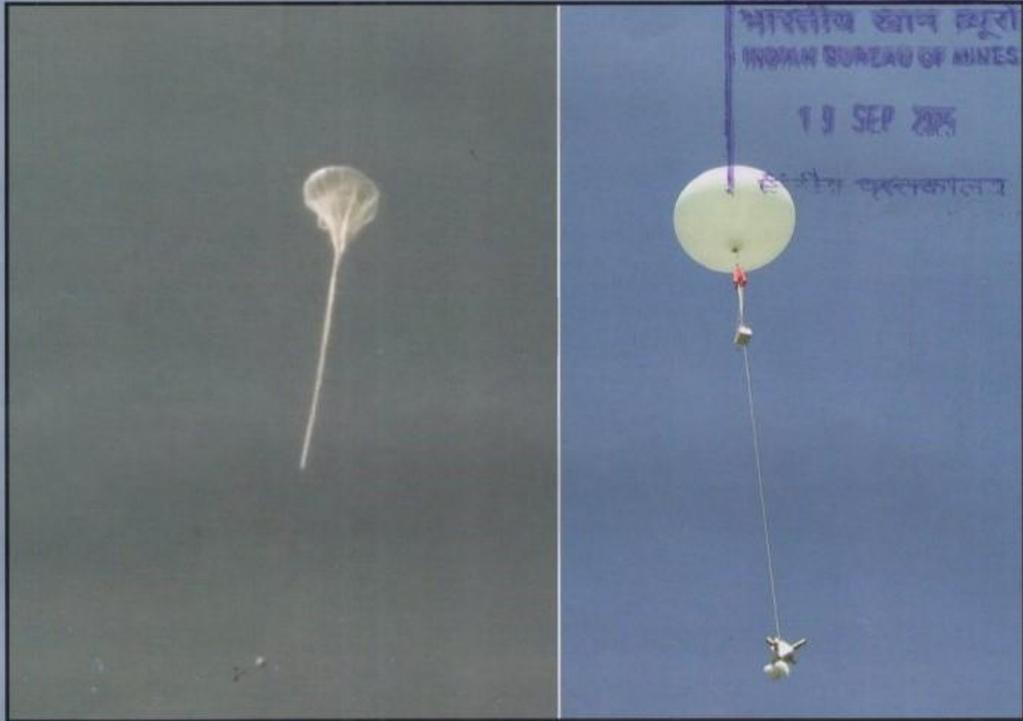
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Current Science, Vol. 129 No. 04, August 2025

# CURRENT SCIENCE

Volume 129 Number 4

25 August 2025



The importance of pregnant devil rays in marine ecosystems

Exploring attitude and rotation in stratospheric research

Regenerative agriculture: empowering farmers for a sustainable future

Current Science Association



Indian Academy of Sciences

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# CURRENT SCIENCE

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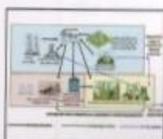
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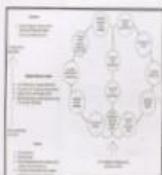
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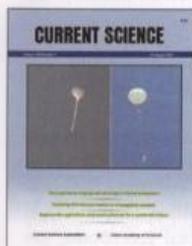
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INDIAN BUREAU OF MINES

19 SEP 2025

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◀ COVER. A plastic balloon with a payload. See page 342.

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BRAJ BINANI GROUP

# Minerals & Metals Review

VOLUME NO.51 ISSUE NO.09, SEPTEMBER 2025  
Price Rs. 400

## RAPSRI Permanent Mold Castings (PERMOLD)



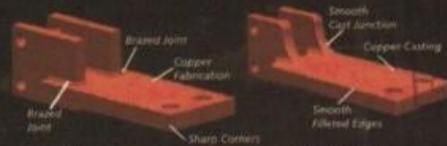
RAPSRI has developed a unique permanent mold process (PERMOLD) which has revolutionized design, engineering and quality standards of conventional casting processes and fabrications

PERMOLD has the following inherent advantages over the conventional castings processes for shaped castings:

- Superior mechanical properties and microstructure
- Excellent electrical conductivity (95% 101% IACS)
- Higher density
- Very close as-cast tolerances ( $\pm 0.25\text{mm}$ )
- Near-net shaped products (eliminating secondary machining/finishing operations)
- Higher casting yields



PERMOLD process has proven applications world over:



**Copper Fabrication**  
Brazed Joints  
Poor Electrical Conductivity across the joint  
Weight: 5.5 Kilograms

**Copper Casting**  
One Piece Component  
Excellent Uniform Conductivity  
Weight: 4.9 Kilograms

- Brazed assemblies of ETP copper converted to PERMOLD castings to achieve better conductivity across the joints and lower temperature rise - V/MV/HV switchgear components



**Copper Twisted Fabrication**  
Highly Stressed Twisted Joint  
Poor Electrical Conductivity across the joint due to Residual Stresses  
Requires stress relieving heat treatment for restoring properties



**Copper Casting**  
Casted as one piece component  
Excellent Uniform Conductivity  
No such treatment required

- Various copper/copper alloy fabrication made from extrusions, forgings etc by bending and twisting operations can be converted to PERMOLD castings and thereby eliminating secondary processes like stress relieving etc to restore properties particularly to restore conductivity across the junctions

- Assemblies involving multipart steel/stainless steel fabrications requiring riveting, welding and gearing converted to PERMOLD aluminum bronze and/or specialty brass castings to reduce part numbers, improved strength, improved corrosion resistance and increase productivity

PERMOLD Alloys:

- Coppers (85%, 95%, 99% & 101% IACS)
- Low alloy coppers (high strength & high conductivity)
- Aluminum Bronzes
- Specialty brasses
- Specialty tin bronzes



### RAPSRI ENGINEERING PRODUCTS COMPANY LIMITED

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