

**Research Article**

## **Effect of different freezing methods on drip, texture, microstructure in fresh cheese (paneer)**

Rajib Lochan Poudyal<sup>1</sup>, Manabu Watanabe<sup>1\*</sup> and Toru Suzuki<sup>1</sup>

<sup>1</sup>Department of Food Science and Technology,  
Tokyo University of Marine Science and Technology,  
Minatoku Konan 4-5-7, Tokyo, Japan

\*Correspondence: [mwat@kaiyodai.ac.jp](mailto:mwat@kaiyodai.ac.jp)

ORCID: <https://orcid.org/0000-0002-6027-5853>

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### **ABSTRACT**

Paneer is acid heat milk coagulated soft cheese popular in South East Asia. The shelf life is a major limitation for its utilization; even when kept under refrigeration. Similarly, the texture becomes flaky and fluffy after thawing. Freezing rate effects on the growth of ice crystals as well as microstructure damage that is responsible for the change in the textural quality of the Paneer. In this study, the effect of two-dimensional freezing by static air observed before and after freezing. Effect of freezing on panner were subject to analyses under slow freezing at -30°C, rapid freezing at -80 °C and supercooling freezing conditions. The quality evaluation carried out by means of drip loss, textural analysis, and microscopic observation. By using this technique, it was possible to decide the supercooling freezing is significantly best method for preserve the paneer to keep required hardness, low drip and small cracks and rupture in a microstructure in compare to another method.

**Keywords:** Supercooling, Freezing, Thawing, Nucleation, Texture.

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