

**Paper Number:** ICR0209

**Title of Paper:** Heat Transfer and Power Consumption in a Scraped Surface Heat Exchanger.

**Presenter:** T. Matsunaga et al.

**Session:** C2-1

**Person Contributing Discussion or Question:** Stamatios, E. , 200 College St., Toronto, ON M5S 3E5, Canada

**Comment or Question:** Does the heat transfer correlation apply for phase change? Can you include the effect of phase change? Can you compare heat transfer results with well known surface renewal theory?

**Presenter's Reply:** Our correlation of the heat transfer can apply for Newtonian fluid of single phase. In this study, the effect of phase change does not be included. The flow pattern in this scraped surface heat exchanger is turbulent flow. We can't compare with a laminar theory of removed surface.

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**Paper Number:** ICR0228

**Title of Paper:** Developmental of Three-Dimensional Measurement Method for Ice Crystals in Frozen Liquid Foods

**Presenter:**

**Session:** C2-1

**Person Contributing Discussion or Question:** Pr Lebaillien-Enitriaa-GEPEA, Enitriaa – BP82225, 44322 Nantes, Cedex 3- France

**Comment or Question:** Did you use your method for tissue like fish or meat?

**Presenter's Reply:** Yes. Our group had already applied MSIPS to beef tissue to analyze 3-D ice crystals (ICR 0445 21<sup>st</sup> ICR)

MSIPS enable to visualize the ice crystals of frozen solution and tissue materials.

**Paper Number:** ICR0228

**Title of Paper:** Developmental of Three-Dimensional Measurement Method for Ice Crystals in Frozen Liquid Foods

**Presenter:** T. Higuchi

**Session:** C2-1

**Person Contributing Discussion or Question:** A. Yokozeki, DuPont Fluoroproducts Lab., Chestnut Run Plaza, Wilmington, DE 19880

**Comment or Question:** Why is the ice formation is bundles?

**Presenter's Reply:** under one-dimensional freezing, the ice crystal forms the dendrite and column toward the vertical direction.

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**Paper Number:** ICR0209

**Title of Paper:** Heat Transfer and Power consumption in a Scraped Surface Heat Exchanger

**Presenter:** T. Matsunaga

**Session:** C2-1

**Person Contributing Discussion or Question:** Pr. LeBail – Gepea-enitiaa, Enitiaa-BP82225 44322 Nantes, France

**Comment or Question:** Did you evaluate the gap between the blade and the rotor?

**Presenter's Reply:** In the present, we can't evaluate the gap between the blade and heat transfer surface. But the influence of the gap between the rotor and cylinder is considered in correlation. We confine to blade contacting the heat transfer surface only by pressure sensor.