

特別講演会

主催： 東北大学流体科学研究所

共催： 静電気学会「放電プラズマによる水処理研究委員会」

日時：令和4年2月22日（火）9:00～10:00 (JST)

場所：オンライン開催（Webex, 下記 URL よりご登録ください。）

ミーティングリンク：

<https://tohokuuniversity-zdb.my.webex.com/tohokuuniversity-zdb.my/j.php?MTID=m65c758fab3ace8aff1e2e6c34122ff62>

ミーティング番号（アクセスコード）：2511 426 3049

ミーティングパスワード：VjUmPWjc787 （85867952 電話またはビデオシステムから参加の場合）

講師：James S. Cotton (Professor, Department of Mechanical Engineering, McMaster University, Canada (Visiting Professor, Institute of Fluid Science, Tohoku University, Japan))

講演内容： Electrohydrodynamics and its application to heat transfer and energy storage technologies

The seminar will introduce Electrohydrodynamics (EHD) as the next generation thermal management technology able to solve a broad range of challenges, from thermal energy harvesting and storage to advanced control of dynamic thermal management applications. The objective of this research is to develop expertise in new heat exchanger design and enhanced thermal storage solutions that incorporate EHD as the mechanism of enhancement and intelligent control. This seminar will review the development of novel high-performance heat transfer systems and thermal storage with a focus on two specific outcomes:

- A) Establish EHD as a new method of active control for liquid-vapor heat exchangers and thereby provide new capabilities in thermal management system solutions.
- B) Expand our leading research into EHD solid-liquid PCM thermal storage to enhance charging and discharging performance.

This study was supported by the IFS Collaborative Research Project (J21T001).

連絡先：

東北大学 流体科学研究所

佐藤 岳彦 (Tel: 022-217-5320)

E-mail: takehiko.sato.d7@tohoku.ac.jp