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応用物理学会北海道支部講演会のお知らせ

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下記講演会を開催いたしますので、多数ご参加下さいますようご案内申し上げます。

【 演題 】Potential of epitaxial perovskite oxide heterostructures
【 講師 】Kookrin Char
Seoul National University, Professor
【 日時 】2024 年 6 月 21 日（金）15:00 ～ 16:00
【 講演開催場所 】北海道大学電子科学研究所 1F セミナー室 1-2
（札幌市北区北 20 条西 10 丁目）
【 主催 】北海道大学電子科学研究所学術交流委員会
【 共催 】公益社団法人応用物理学会北海道支部
【 講演の要旨 】Many fascinating properties of perovskite oxides has been studied during the last thirty plus years since the discovery of high-Tc superconductivity. At the same time, easy heteroepitaxial growth of various perovskite oxides has been demonstrated. However, many efforts to create a novel device by integrating such interesting properties have not produced significant results mainly due to the most important single factor: lack of control and understanding of the properties of the inevitable interfaces between the perovskite oxides. One of its root causes is the oxygen instability of the transition metal based perovskite oxides. Recent advent of the perovskite oxide semiconductor BaSnO3 with high mobility and oxygen stability has significantly improved the situation by demonstrating reliable field effect in such material in combination with various compatible high-k and ferroelectric perovskite gate oxides. In this talk our main focus will be the 2DEG formation at the polar perovskite interface of LaInO3/BaSnO3 and the field effect by using high-k dielectrics such as SrHfO3 and Ba(Hf0.6Ti0.4)O3 and ferroelectric Pb(Zr1-xTix)O3 gate oxides.

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