

課題番号 : F-19-TU-0115
利用形態 : 技術相談
利用課題名(日本語) :
Program Title (English) : Transport in topological magnetic insulator devices
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キーワード/Keyword : リソグラフィ・露光・描画装置、成膜・膜堆積、膜加工・エッチング

1. 概要(Summary)

The topological electronic materials have attracted tremendous attention in both condensed matter physics and material science studies to date. This project focuses on experimentally establishing magnetic topological material heterostructures (natural and artificial), their properties and possible applications. We will detect the possible quantized topological edge current states, novel topological phase transition and thermal responses in these systems. Also, our project may make topologically non-trivial magnetic heterostructures be platforms for future spintronic and spin caloritronic applications.

In order to fabricate nano structures by using electron beam lithography system, I have contacted Center for Integrated NanoTechnology Support, Tohoku University. The operation training of the system will start soon.

2. 実験(Experimental)

3. 結果と考察(Results and Discussion)

4. その他・特記事項(Others)

なし。

5. 論文・学会発表(Publication/Presentation)

なし。

6. 関連特許(Patent)

なし。