

Evaluation of Core-to-Core Program (Translation)

日本学術振興会 研究拠点形成事業（A. 先端拠点形成型）

事後評価（平成27（2015）年度採択課題）結果

日本側拠点機関名 広島大学（教授・井上 克也）

研究交流課題名 スピンキラリティを軸にした先端材料コンソーシアム

評価結果（総合的評価）	
<input type="radio"/>	A 想定以上の成果をあげており、当初の目標は達成された。
<input type="radio"/>	B 想定どおりの成果をあげており、当初の目標は達成された。
<input type="radio"/>	C ある程度成果があがり、当初の目標もある程度達成された。
<input type="radio"/>	D 成果が十分にあるとは言えず、当初の目標はほとんど達成されなかった。

所見

本事業では、拠点機関のある日本・イギリス・ロシアだけでなく、各拠点と協力関係にある多くの国の研究機関と連携をとりながらスピンキラリティを軸とした先端材料の構築に関する世界的水準の研究を展開している。それぞれが得意とする知見を対等な費用分担による研究交流を通して結集できたことは特筆に値する。

参加機関の共著論文を含めた論文数、国際会議発表件数、またセミナーやシンポジウムの開催件数・参加人数等、数値的に表れるエビデンスとしても成果が上がっており、全体として国際研究交流拠点の構築が堅実に進められている。

若手人材育成の面でも、キラル自然哲学会、若手の会を通して、分野横断的なディスカッションが実現し若手研究者、学生に対する啓発ができています。多数の所属学生がアカデミックポジションを得ていることは、本事業が、若手研究者の身につけるべき研究遂行能力、資質向上に大いに寄与したことを物語っている。

研究成果のうち、新規キラル磁性体結晶の合成・測定については、本事業を通して多くの成果をあげたといえるが、スピントロニクス、プラズモニクスの融合や次世代情報通信技術への展開については、萌芽的な成果があるものの、特筆すべき成果を出すには至っていない。

事業終了後も世界的水準での国際研究交流拠点として活動できる体制は構築できており、これまでの成果をまとめるとともに、この目標に向けた継続的な国際研究交流拠点としての活動に大いに期待したい。

Japan Society for the Promotion of Science (JSPS) Research Center Formation Project (A. Advanced Center Formation Type)

Post-evaluation results of the proposals adopted in 2015

Japanese center: Hiroshima University (Professor Katsuya Inoue)

Title of Research Exchange Project: Consortium for Advanced Materials with a Focus on Spin Chirality

Evaluation results (overall evaluation)

- A The results have been better than expected and the initial goal has been achieved.
- B The results were as expected, and the initial goal was achieved.
- C Some results have been achieved and the original goal has been achieved to some extent.
- D The results were not satisfactory, and the original goal was hardly achieved.

finding

In this project, the group is conducting world-class research on the construction of advanced materials based on spin chirality in collaboration with research institutes not only in Japan, the United Kingdom, and Russia, where the center is located, but also in many other countries with which the center has cooperative relationships. It is worthy of special mention that the group have been able to bring together the knowledge that each of the group is good at through research exchange with equal cost sharing.

The number of papers including those co-authored by participating institutions, the number of presentations at international conferences, the number of seminars and symposia held, and the number of participants have all produced quantifiable evidence of the success of the project, and overall, the establishment of an international research exchange center is progressing steadily.

In terms of human resource development for young researchers, cross-disciplinary discussions have been realized and enlightenment for young researchers and students has been achieved through the Chiral Society of Natural Philosophy and the Young Researchers' Association. The fact that many of the group students have obtained academic positions shows that this project has greatly contributed to the improvement of young researchers' ability to conduct research and the quality of their work.

Among the research results, it can be said that the group has achieved many results in the synthesis and measurement of new chiral magnetic crystals through this project, but the group has not yet achieved any noteworthy results in the integration of spintronics and plasmonics and the development of next-generation information and communication technologies, although the group has had some budding results.

Even after the completion of the project, the group has established a system that will allow them to operate as a world-class international research exchange center, and the group has high expectations for their continued activities as an international research exchange center toward this goal, as well as for summarizing their achievements to date.