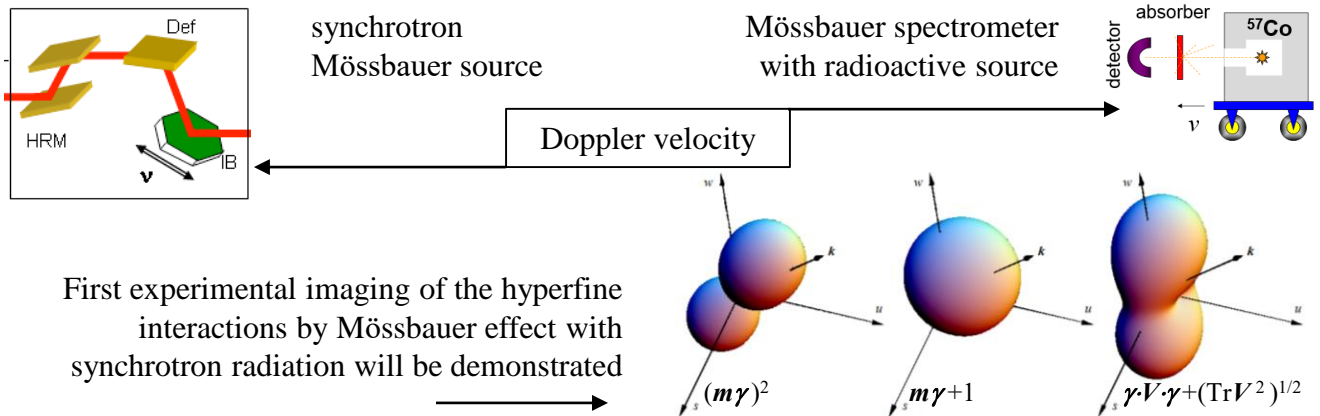


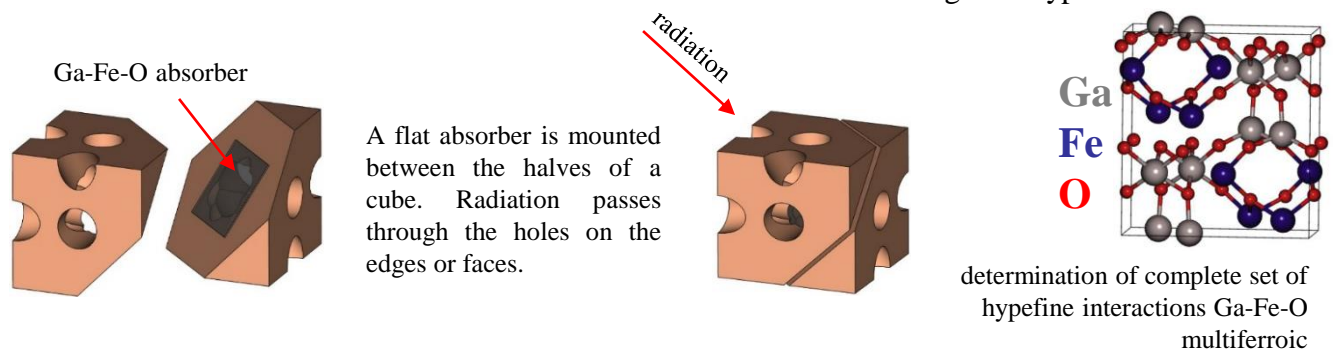
objective of the project

- To solve a problem of determination of a complete set of the hyperfine interactions and to introduce a new method of investigation of single crystals, free of ambiguity.
- To introduce a new method of imaging of the hyperfine interactions by use of a synchrotron radiation.
- To apply a new methods in investigation of Ga-Fe-O multiferroics and comparison with theoretical calculations.

research to be carried

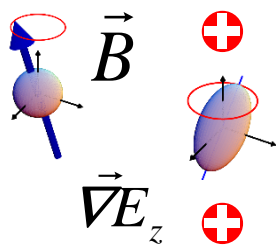


simulated images of hyperfine interactions

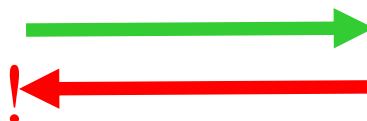


reasons for choosing the research topic

hyperfine interactions of nucleus and electrons in matter

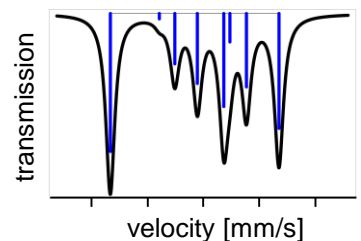


the spectrum can be predicted by quantum mechanical rules



the inverse problem, prediction of interactions from the spectrum, is ambiguous

experiment: Mössbauer spectrum



The problem of determination of a complete set of hyperfine interactions will be solved!!!