Abstract Submitted
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The Images of vortex penetration into superconducting MoGe plates observed by scanning SQUID microscope[1] HO THANH HUY, Osaka Prefecture Univiersity, MASAHIKO HAYASHI, Akita University, TSUTOMU YOTSUYA, TAKEKAZU ISHIDA, Osaka Prefecture Univiersity — The amorphous superconducting film is very preferential as a good model in studying nanostructured superconductors because it has weakened pinning centers compared to other superconductors. The MoGe films have been deposited by a DC sputtering apparatus using a $Mo_{80}Ge_{20}$ target and a number of small MoGe plates were fabricated with the aid of photolithography. The vortex distribution in a MoGe circle has been investigated by means of a scanning SQUID microscope. We found that vortices form different configurations including shell structures, which evolves with the increase in applied magnetic field. Observed results are compared to theoretical studies for vortices in mesoscopic circles.

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