

A Historical Episode on Development of MgB₂ Materials and Current Status of its Application

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Abstract— Since the discovery of MgB₂ superconductor, ASG SUPERCONDUCTOR plays an important role for MgB₂ wire and its product application. MgB₂ wire had been developed by Columbus Superconductor originally, supplied to ASG SUPERCONDUCTOR and some of the application products have been developed by ASG SUPERCONDUCTOR. Now, Columbus Superconductor has merged with ASG SUPERCONDUCTOR. Long length and high performance MgB₂ wire, and several magnets such as open MRI, fault current limiter, induction heater, wind power generator, etc. have also been developed. Open MRI is already commercialized. High current stranded cables have also been developed and applied for use in utility power cable and high current feeder for accelerators.

Keywords (Index Terms) — MgB₂ Superconductor, MRI, fault current limiter, induction heater, wind power generator, power cable.

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