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Quality and performance measurement of glued Samarium-Cobalt magnet blocks

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The Samarium-Cobalt (Sm_2Co_{17}) permanent magnet block is a promising material for accelerator applications due to its high radiation resistance, low temperature coefficient, high coercive force, and rust resistance. However, Sm_2Co_{17} is costly and easily to brittleness. To reduce production costs, a glued Sm_2Co_{17} block has been developed as a substitute for large blocks, which helps to lower equipment expenses for Sm_2Co_{17} production. The National Synchrotron Radiation Research Center (NSRRC) has developed and implemented glued Sm_2Co_{17} blocks in soft-iron pole magnets. This report discusses various applications of glued Sm_2Co_{17} blocks and evaluates their quality.

Footnotes

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Region represented

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