

**DEVELOPMENT OF NEW MAGNETIC-NOISE  
MEASUREMENT METHODS FOR MATERIAL  
CHARACTERIZATION**

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The aim of this project is the development of new magnetic noise measurement methods for non-destructive testing applications. Five partners are involved – two industrial ones, one industrial research institute and the departments of theoretical physics and solid state physics. We have developed the electronics and the data analysis programs for the evaluation of the Barkhausen noise spectra. We can analyze the spectra both in real time and with post processing methods. We could evaluate the distribution function of various peak parameters, and determine the corresponding exponents. Currently we are evaluating the noise spectra for different technical materials under various external conditions using different excitation parameters. This work gives the basis for the development of the new measuring devices.

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