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New architectures of uniform eddy current probes for NDT using GMR(Conference Paper)

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Краткое описание

Non Destructive Testing (NDT) techniques are more and more exploited in order to quickly and cheaply detect flaws into the inspected materials such as aluminium plates. Important solutions in this field are based on eddy current detection, different eddy current probes being mentioned in the literature. Uniform eddy current probes (uniform-ECP) represent a particular category characterized by less sensitivity to the lift-off effects and has been originally used to inspect weld zones. This paper presents novel architectures based on uniform-ECP that combine the tangential excitation coil having a parallelepiped shape with highly sensitive giant magnetoresistances (GMR). Two different architectures regarding the GMR sensor location within the excitation coil are considered. An automatic testing system to characterize the sensor and to perform tests on an aluminium plate specimen with different defects is also presented.

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Ключевые слова автора

[Eddy current testing](#)
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