Local thermal diffusivity measurement

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Abstract

In plane thermal diffusivity is measured using a one-side thermographic technique suitable for *on field* use. Applying an uneven heating on the sample surface and measuring the time evolution of the Fourier Transform of the temperature leads to a simple identification formula. The technique has been applied on both thermally thin and thick samples. Results achieved for porous materials (construction stones) and stainless steel have been compared with those obtained by the classical two side flash method.

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