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"Distortions in pixel-matched holographic data storage due to lateral dimension change of photopolymer storage media", R.M. Shelby (IBM Almaden Research Center, 650 Harry Road, San Jose, CA 95120), David Waldman and Richard Ingwall (Aprilis, Inc., 750 Main Street, Cambridge, MA 02139)

ABSTRACT

Dimensional changes in polymerizable storage materials during exposure are a source of pixel misregistration in digital holographic storage. Lateral shrinkage or expansion of photopolymer recording materials can be deduced from quantitative measurement of the shift and the magnification errors of reconstructed holograms.