3D Information Retrieving of Concealing Surface beneath Opaque Resin Layer by Fast-Fourier Low Coherence Interferometer

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A normalized contrast method on a Superluminescent diode (SLD) low coherence interferometer could retrieve 2D image concealing under a light-scattering medium. In addition, a continuous wavelet transform on both white light and SLD vertical scanning interferometry could construct 3D profile of the interfaces in a dual-layer structure. In this research, 3D information on surface, concealing beneath opaque resin layer, will be produced by using SLD phase difference interferometry with a Fast Fourier Transform. The effect of opaqueness of coating resin layer to quality of 3D image from our method will be revealed.

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