Enhancing of Laser Imaging by Using Ultrasound Effect

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Abstract : The effect of using both ultrasounds with laser in medical imaging of the biological tissue has been studied in this paper. Different wave lengths of incident laser light (405 nm, 532 nm, 650 nm, 808 nm and 1064 nm) were used with different ultrasound frequencies (1MHz and 3.3MHz). The results showed that, the change of acoustic intensity enhance the laser penetration of the tissue for different thickness. The existence of the ideal Raman-Nath diffraction pattern were investigated in terms of phase delay and incident angle.

Keywords : tissue, laser, ultrasound, effect, imaging

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