

ABSTRACT

The present invention relates to a holographic storage device and method for simultaneously recording and reading on two sides, and pertains to the technical field of optical holographic storage. The device and method disclosed in the present invention use a characteristic that orthogonal light would not interfere with each other and a Bragg selectivity characteristic for holographic storage, and use two optical heads to constitute two interference fields orthogonal in polarization directions on two sides of a same position of a holographic storage medium, so as to perform two-path simultaneous recording and reading on a hologram. The device and method provided in the present invention implement two-path parallel recording and reading of holographic storage, and combine shift multiplexing and circumferential rotation multiplexing, thereby improving the speed of an information data recording and reading process while increasing a capacity of the holographic storage.

[Fig. 3]