MAGNETIC RECORDING MEDIUM AND PROCESS FOR PRODUCING SAME

ABSTRACT

A magnetic recording medium having a substrate disc with microscopic bumps formed by focusing a laser beam, wherein spacings D between adjacent microscopic bumps in the circumferential direction of the disc are varied so that the formula "$1 \leq [(D_{max} - D_{min})/D_{avg}] \times 100\ (\%) \leq 200$" is satisfied, wherein D_{max}, D_{min} and D_{avg} are the maximum, minimum and average spacings, respectively, as determined by a method wherein 2.5% of the total number of spacings D, having the largest dimensions, and 2.5% of the total number of spacings D, having the smallest dimensions, are excluded; and D_{max}, D_{min} and D_{avg} are measured on the remaining 95% of the total number of spacings D. The bump spacing variation is attained, for example, by modulating the pulse repetition frequency F of laser beam so that the ratio of "$(F_{max} - F_{min})/F_{avg}$" is maintained in the range of 0.01 to 100, wherein F_{max}, F_{min} and F_{avg} are the maximum, minimum and average values, respectively, of the F of laser beam.