# 3D Optical Data Storage Technology

# ABSTRACT

 3D optical data storage is the term given to any form of optical data storage in which information can be recorded and/or read with three dimensional resolution (as opposed to the two dimensional resolution afforded, for example, by CD).

 This innovation has the potential to provide petabyte-level mass storage on DVD-sized disks. Data recording and read back are achieved by focusing lasers within the medium. However , because of the volumetric nature of the data structure, the laser light must travel through other data points before it reaches the point wherereading or recording is desired.Therefore,some kind of nonlinearity is required to ensure that these other data points do not interfere with the addressing of the desired point.

 No commercial product based on 3D optical data storage has yet arrived on the mass market, although several companies are actively developing the technology and claim that it may become available soon.