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Stallinga

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(54) **OPTICAL SCANNING DEVICE WITH A SELECTIVE OPTICAL DIAPHRAGM**

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(65) **Prior Publication Data**

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(30) **Foreign Application Priority Data**

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(51) **Int. Cl.**⁷ **G11B 7/00**

(57) **ABSTRACT**

(52) **U.S. Cl.** **369/112.02; 369/118**

An optical scanning device comprising means for scanning optical record carriers of predetermined different formats, such as CDs and DVDs, using scanning at different numerical apertures provided by an optical diaphragm. The optical diaphragm comprises cholesteric liquid crystal material of one or more selected helical pitches which provide the diaphragm with desired wavelength- and/or polarization-selective characteristics.

(58) **Field of Search** 369/112.01, 112.02, 369/112.16, 112.22, 116, 118, 121, 117; 250/201.5, 201.2, 201.3, 216

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24 Claims, 4 Drawing Sheets

