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(74) Agent: **DEGUELLE, Wilhelmus, H., G.**; Internationaal Octrooibureau B.V., Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

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(71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

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(72) Inventor; and

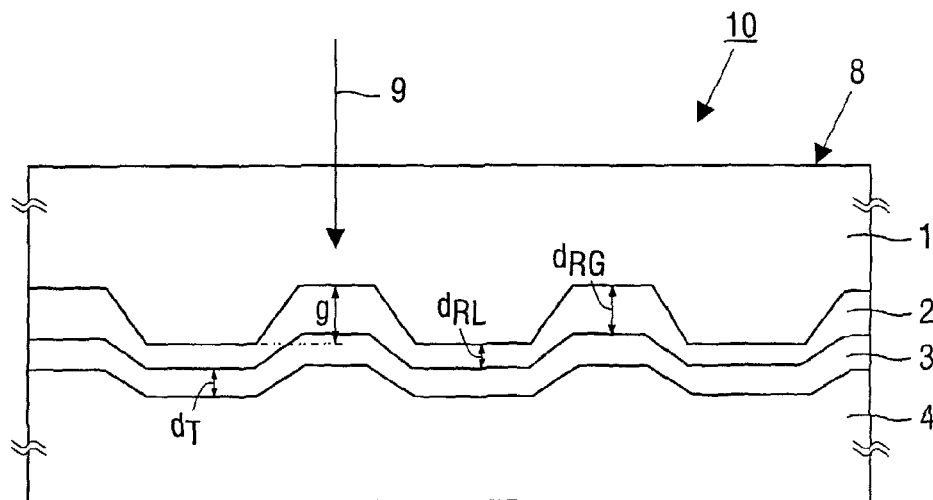
(75) Inventor/Applicant (for US only): **MARTENS, Hubertus, C., F.** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

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(54) Title: OPTICAL DATA STORAGE MEDIUM AND USE OF SUCH MEDIUM



(57) Abstract: An optical data storage medium (10) for recording by means of a focused radiation beam (9) having a wavelength λ is described. The beam enters through an entrance face (8) of the medium during recording. The medium at least comprises a substrate (1), including a guide groove with a depth g . The guide groove is present at the side of the substrate opposite to the entrance face. A recording stack (2, 3) of layers is present adjacent the substrate (1) at the side of the guide groove. The stack includes a write-once recording layer (2) of a material having a complex refractive index $\tilde{n}_R = n_R - i \cdot k_R$ at the wavelength λ and having a thickness d_{RG} in the groove portion and a thickness d_{RL} in the portion between grooves. A non-metallic layer (3) of a substantially transparent material, is present adjacent the write-once recording layer (2). The groove depth g is in the range $(\lambda/655) \cdot 20 \text{ nm} < g < (\lambda/655) \cdot 140 \text{ nm}$ with λ expressed in nm. This range achieves a sufficient push-pull tracking signal and a sufficient modulation of recorded marks.



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