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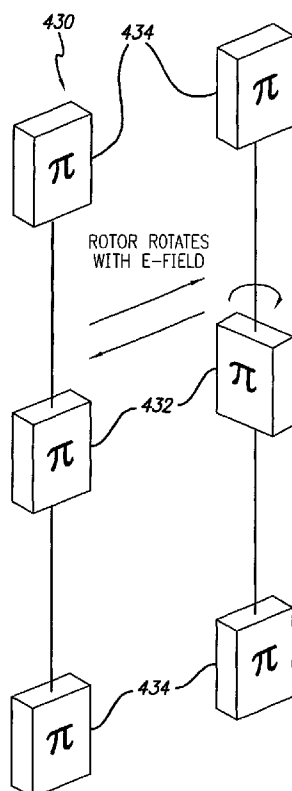
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- (71) Applicant: **HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.** [US/US]; 20555 S.H. 249, Houston, TX 77070 (US).
- (72) Inventors: **ZHANG, Xiao-An**; 689 Grand Fir Avenue, #2, Sunnyvale, CA 94086 (US). **WILLIAMS, R., Stanley**; 1512 Edgewood Road, Redwood City, CA 94062 (US).
- (74) Agent: **HEMINGER, Susan, E.**; Hewlett-Packard Company, IP Administration, P.O. Box 272400, Fort Collins, CO 80527-2400 (US).
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(54) Title: ELECTRIC-FIELD ACTUATED CHROMOGENIC MATERIALS BASED ON MOLECULES WITH A ROTATING MIDDLE SEGMENT FOR APPLICATIONS IN PHOTONIC SWITCHING



(57) Abstract: A molecular system (430) is provided for electric field activated switches, such as optical switches (101, 205, 207, 209), constituted of molecules having a rotatable portion (rotor) (432) connected between two stationary portions (stators) (434). The molecular system (430) has an electric field induced band gap change that occurs via a molecular conformation change. Nanometer-scale reversible optical switches (101, 205, 207, 209) are thus provided that can be assembled easily to make a variety of optical devices, including optical displays (100, 200, 300).



SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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