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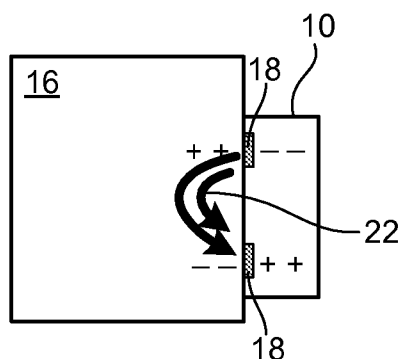
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(57) Abstract: Described herein is electroadhesion technology that permits controllable adherence between two objects. Electroadhesion uses electrostatic forces of attraction produced by an electrostatic adhesion voltage, which is applied using electrodes (18) in an electroadhesive device. The electrostatic adhesion voltage produces an electric field and electrostatic adherence forces. When the electroadhesive device and electrodes are positioned near a surface of an object such as a vertical wall (16), the electrostatic adherence forces hold the electroadhesive device in position relative to the surface and object. This can be used to increase traction or maintain the position of the electroadhesive device relative to a surface. Electric control of the electrostatic adhesion voltage permits the adhesion to be controllably and readily turned on and off.

Figure 3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/70437

A. CLASSIFICATION OF SUBJECT MATTER

IPC: H01L 21/683(2006.01)

USPC: 361/234

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 361/234

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 5,638,249 (RUBINO et al) 10 June 1997 (10.06.1997, Fig. 5.	1, 2, 12; 18-20, 25-27 & 28 ----- 21-24, 29 & 31-36
X --- Y	US 5,745,311 (SHAMOUILIAN et al) 28 April 1998 (28.04.1998), Fig. 2b.	1 ----- 23
X --- Y	US 4,257,083 (BLYTH) 17 March 1981 (17.03.1981), Fig. 2	1, 8, 9, 11 & 13-16 ----- 21, 22 & 24
X	US 3,634,740 (STEVKO) 20 April 1970 (20.04.1970), Fig. 4	1, 10, 17



Further documents are listed in the continuation of Box C.



See patent family annex.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2005/0235537 (ROBERT LEE et al.) 27 October 2005 (27.10.2005), paragraph 0003.	29 & 32-36
Y	US 2002/0166212 (PRATL) 14 November 2002 (14.11.2002), Fig. 1.	31
A	US 2007/0285870 (SHIM) 13 December 2007 (13.12.2007), Fig. 2.	7