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(54) **DISPLACEMENT DEVICE**

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(57) **ABSTRACT**

Especially for use in the semiconductor industry, a displacement device (**701**) is disclosed comprising a first part comprising a carrier (**714**) on which a system of magnets (**710**) is arranged according to a pattern of row and columns extending parallel to the X-direction and the Y-direction, respectively. The magnets in each row and column are arranged according to a Halbach array, i.e. the magnetic orientation of successive magnets in each row and each column rotates 90° counterclockwise. The second part comprises an electric coil system (**712**) with two types of electric coils, one type having an angular offset of +45°, and the other type having an offset of −45° with respect to the X-direction. The first part (**714**, **710**) is movable over a range of centimeters or more with respect to the stationary second part (**712**). For high precision positioning of the first part, an interferometer system (**731**, **730**) is provided.