

Title (en)
PLANAR-HELICAL UNDULATOR

Title (de)
PLANAR-HELISCHER UNDULATOR

Title (fr)
ONDULEUR PLANAIRE HÉLICOÏDAL

Publication
EP 2095695 A1 20090902 (DE)

Application
EP 07846613 A 20071116

Priority
• EP 2007009900 W 20071116
• DE 102006056052 A 20061128

Abstract (en)
[origin: WO2008064779A1] A planar-helical undulator which is electrically complete for variable polarization over 360° of the x-ray emitted therefrom is constructed from two identical or two identically built coils which each have a planar and a helical section. The base of each coil winding in a section is convex as seen from outside, and the position or area of the coil base with the largest radius of curvature is such that the undulator axis is aligned to the next axis level. The two sections of a coil have the same or a different number of coil windings. The longitudinal areas of the two sections coincide, or the smaller lies completely within the larger. In the case of sections of a coil having the same length and circular coil windings of a planar section and a constant number of turns in both sections, the planar section is positioned around the helical section. In the case of sections of a coil having the same length in at least one section of a coil, the number of turns in the coil winding is not constant and varies over the length of the section to the symmetrical section center thereof. In the case of sections having lengths which are not the same, the number of turns in the coil winding is constant or, in at least one section of the coil, the number of turns in the coil winding is not constant and varies along the length of the section to the symmetrical section center thereof. The number of coil windings of the planar section is ≥ 2 , and the number of coil windings of the helical section of a coil is ≥ 2 and is an even number.

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