Title (en)

STRUCTURAL ELEMENT, TETRAHEDRAL TRUSS CONSTRUCTED THEREFROM AND METHOD OF CONSTRUCTION

Publication

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Application

EP 80901524 A 19810126

Priority

US 5449779 A 19790703

Abstract (en)

[origin: WO8100130A1] A three-dimensional, tetrahedral truss and its method of construction are provided. The truss comprises a three-dimensionally periodic skeletal array of an interconnected plurality of skeletal-tetrahedric units, the array being in the pattern of the cubic-diamond crystallographic structure (FIG. 7). In one embodiment, each of the skeletal-tetrahedric units is an articulated arrangement of struts (44) joined in the pattern of an equilateral skeletal-tetrahedron (FIG. 4). In another, more preferred embodiment, each of the skeletal-tetrahedric units is a skeletal arrangement of elongate members (80) joined in the pattern formed by the face members of a cubic-diamond unit-cell (FIG. 10), and is preferably assembled from four hexagonic triplanar-rings (FIG. 10A) being of the form created by joining six bilateral-elements (80) in a closed ring, triplanar pattern (FIG. 9), the bilateral-elements (80) each having equal sides and having an included angle of about 109` 28' (FIG.8).

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