

Invention relates to the field of hydrogen energy, specifically to a method for manufacturing structural elements that connect individual solid-oxide fuel cells into blocks. The connecting elements are manufactured from a 0.3 mm thick sheet of OT4-1 titanium alloy, onto which, by means of vacuum arc plasma spraying in a nitrogen atmosphere from a target made of an alloy consisting of Ti – 36 mass. % Al - 1 mass. % Gd, a coating with the following phase composition is applied in a nitrogen atmosphere: 100% c-nitride (Ti, Al, Gd)N with a NaCl-type crystal lattice. Technical result: increased surface electrical conductivity of connecting elements during long-term oxidation in the anode environment of medium-temperature (600 °C) solid-oxide fuel cells.