Design and space qualification of a VUV telescope mirror for solar observations

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For the Solar Orbiter mission that is approaching the Sun at 0.3 AU a special telescope mirror has been designed for a VUV spectrometer. The mission implies very limiting requirements on the design and the stability of the mirror exposed to harsh irradiation conditions of the Sun, in particular in respect to the thermal heat load and ionizing radiation. The qualification tests and the final design of the mirror will be presented.