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| <b>Patent title:</b>          | <b>Multilayer coating with high absorption of solar energy and with low thermal emissivity, related cermet composite, a use thereof and processes for producing them</b>   |
| <b>FBK center:</b>            | CMM  |
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| <b>Patent family:</b>         | EP2757176 (B1) — 2018-10-03; ES2704091 (T3) — 2019-03-14   |
| <b>Application(s):</b>        | Production of solar thermal and/or electric energy   |
| <b>Keyword(s):</b>            | Absorption of solar energy, Multilayer coating   |
| <b>Abstract:</b>              | The invention concerns a multilayer coating with high absorption of solar energy and with low thermal emissivity that comprises a first layer of molybdenum; a second layer essentially made up of TiO <sub>2</sub> and niobium metal; and a third layer of SiO <sub>2</sub> . The invention moreover concerns a relative cermet composite essentially made up of TiO <sub>2</sub> and niobium metal in which the concentration of niobium in the TiO <sub>2</sub> corresponds to 27 - 34 at.%, preferably to 29.6 - 32.0 at.%, more preferably to 30.2 - 31.4 at.%, even more preferably to around 30.8 at.%. Furthermore, processes for producing the coating and the cermet composite, laminar or tubular materials coated with the coating and a use of the cermet composite are proposed. |