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<b>Organization</b>	Technical University of Moldova
<b>Patent / patent application title</b>	<b>THE DEPOSITION PROCESS OF ZNO FILMS DOPED WITH EU AND FUNCTIONALIZED WITH PD</b>
<b>Authors</b>	LUPAN CRISTIAN, TROFIM VIOREL
<b>Patent / patent application N°</b>	<b>1974 from 05.11.2019</b>
<b>Description</b>	<p>Invenția se referă la tehnologia de depunere a peliculelor din semiconductori oxizi, în particular la un procedeu de obținere a peliculelor ZnO:Eu<sup>3+</sup>, cu aplicarea tratamentului fonic rapid (T=650 °C, t=60s), care pot fi aplicate la confecționarea senzorilor de gaze obținând sensibilitatea <math>S = \frac{I_{gas}}{I_{air}} = 1.3</math> la concentrația de 100 ppm H<sub>2</sub> la temperatura camerei și <math>S = \frac{I_{gas}}{I_{air}} = 118</math> la temperatura de operare de 250 °C .</p> <p>The invention relates to the technology for deposition of semiconductor oxide films, in particular to the process of obtaining of ZnO:Eu<sup>3+</sup> films, with application of rapid thermal annealing (T=650 °C, t=60s), with can be applied to the manufacture of gas sensors obtaining sensibility <math>S = \frac{I_{gas}}{I_{air}} = 1.3</math> for 100 ppm H<sub>2</sub> gas at room temperature and <math>S = \frac{I_{gas}}{I_{air}} = 118</math> at operating temperature of 250 °C.</p>
<b>Domain</b>	Industrial equipment and units; Security, protection, safety – antiterrorism, disasters and accidents