

KOROTCENCOV, G., RUSU, E. How to Improve the Performance of Porous Silicon-Based Gas and Vapor Sensors? Approaches and Achievements. In: *Physica Status Solidi (A)*. 2019, Vol. 216, Issue 22, 1900348. ISSN 1862-6300.

It is shown that, along with the advantages, sensors based on porous silicon (PSi) have disadvantages that inhibit their widespread use. The parameters of PSi which can affect the performance of PSi-based sensors are considered in detail, and approaches are analyzed that allow for the improvement of the main characteristics of PSi-based gas and vapor sensors. It is concluded that despite the progress made in terms of improving the sensitivity, selectivity, and stability of PSi-based sensors, further research and development in this direction is necessary, as the existing methods do not provide the required stability of the characteristics and selectivity of their response.