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Composites Semiconductor Gas Sensors for Environmental Monitoring

Semiconductor Gas Sensors for Enviromental Monitoring



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A composite (compound) material is made by two or more materials – often ones that have very different properties. The two materials work together to give the unique composite properties. A semiconductor material is one whose electrical properties lie in between those of insulators and conductors. Composite semiconductor is two or more than two kinds of semiconductor to form a composite system with a microstructure or nanostructure with micro or nanotechnology. In this book, we provide an overview for some of the previous proof-of-principle works, such as composites semiconductor gas sensors for environmental monitoring and analysis. Examples of composites semiconductor sensors for the most important families of environmental air pollutants, including some commercial devices are presented. Finally, future trends in composites semiconductor sensors development will also be discussed. In this context, potential of miniaturization of composite technology, especially for nanostructure/technology seems to be the growing areas that will have huge market influence in the next future.



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