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DESIGN OF NiO-Co₃O₄ HETEROSTRUCTURES LOADED WITH Pr AND Er RARE EARTH ELEMENTS FOR DETECTION OF HAZARDOUS AIR POLLUTANTS.

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Developing high performance gas sensors that are less complicated is a challenge. In this work, a simple-architecture and high performance gas sensors will be designed and fabricated on inter digital electrodes. These gas sensors are made of Co₃O₄ and NiO intero-faces that are loaded with Er and Pr rare earth metals. These rare earths will bring in their electronic charge dynamics and different ionic radius into the mix. These intero-faces mixtures that are both p-type charge carriers are expected to display superior interplay properties that are beneficial to the gas sensing performance for extremely sensitive, selective and stable at affordable temperatures.

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