METHODS OF CONTROLLING OXYGEN PARTIAL PRESSURE DURING ANNEALING OF A PEROVSKITE DIELECTRIC LAYER

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References Cited

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ABSTRACT

Oxygen partial pressure may be controlled during annealing of a perovskite dielectric layer by providing an oxygen-absorbing layer adjacent to the perovskite dielectric layer, and annealing the perovskite dielectric layer in an ambient that includes an ambient oxygen partial pressure, such that the oxygen-absorbing layer locally reduces the oxygen partial pressure adjacent to the perovskite dielectric layer to below the ambient oxygen partial pressure. Thus, a perovskite dielectric layer can be annealed without the need to provide ultra-high vacuum and/or ultra-high purity ambient environments.

30 Claims, 2 Drawing Sheets