



**Evidence of  $\alpha$ -nanophase heterogeneous nucleation from  $\omega$  particles in a  $\beta$ -metastable Ti-based alloy by high-resolution electron microscopy**

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The precipitation of nanostructured  $\omega$  and  $\alpha$  phases by heating a metastable Ti-based alloy was observed by high-resolution transmission electron microscopy. The  $\omega_{iso}$  precipitates formed are shown to behave as nucleation sites for an extremely fine and dispersed  $\alpha$  phase leading to a final stable nanostructured ( $\beta + \alpha$ ) duplex alloy.