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## **Proton irradiation effects on the electron work function of austenitic stainless steel weld metal**

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The effects of proton irradiation on the electron work function of austenitic stainless steel weld metal were investigated by scanning probe microscopy. The electron work function of ferrite increased, while the electron work function of austenite decreased after proton irradiation. The electron work function of the two phases decreased with irradiation depth. An obvious boundary between the irradiated and unirradiated regions was observed on the polished cross-section surface. These changes were attributed to the different irradiation-induced segregation mechanisms on the surface and in the bulk.