عنوان مقاله:

Finite element modeling of the effect of heat input on residual stresses in dissimilar joints

محل انتشار:

یازدهمین کنفرانس ملی جوش و بازرسی (سال: 1389)

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خلاصه مقاله:

In the present sutdy a thermo- elastic-plastic model was developed in order to evaluationg the residual stresses in dissimailar automatic TIG welds between plain carbon steel CK4 and a ferritic stainless steel AIS1409. the effect of welding heat on the magnitude and the distribution of residual stresses was investigated and the results of simulation were validated by X-ray diffraction measurments. it is shown that the calculated residual stresses are i n good agreement with the residual stresses determined experimentally, it was found that the magnitudes of stresses at the .weld at the weld ccnter line increases with increasing the welding speed

کلمات کلیدی:

.FEM, dissimilar joning, welding residual stresses, heat input