

## عنوان مقاله:

Prediction and Optimization of Mechanical Properties of St52 in Gas Metal Arc Weld Using Response Surface Methodology and ANOVA

## محل انتشار:

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تعداد صفحات اصل مقاله: 7

## نویسندگان:

A Doniavi - Mechanical Engineering Department, Faculty of Engineering, Urmia University, Urmia, Iran

A Hosseini - Mechanical Engineering Department, Faculty of Engineering, Urmia University, Urmia, Iran

G Ranjbary - Mechanical Engineering Department, Faculty of Engineering, Urmia University, Urmia, Iran

## خلاصه مقاله:

Many researchers have developed algorithms to predict welding parameters. The variety of welding types is broad because the confine mixture of pressure and temperature could be selected. This paper introduces a response surface methodology (RSM) for optimization and prediction of the influence of Ar and CO<sub>2</sub> gases and electrical current on tensile strength of St52's gas metal arc weld (GMAW) line. After doing experiments the optimum levels of input variables for achieving high tensile strength and contribution of parameters have been obtained by RSM and ANOVA; respectively. In this study the maximum error is 0.44%. Thus it can be concluded that, RSM is one of the .best methods and can be used to predict the output parameters and save the time and cost of additional experiments

## کلمات کلیدی:

Gas Metal Arc Weld Response Surface Methodology ANOVA St52 Tensile Strength

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/542475>

