

Erratum to: Multi-response optimization using the Taguchi-based grey relational analysis: a case study for dissimilar friction stir butt welding of AA6082-T6/AA5754-H111

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Published online: 11 April 2013
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Erratum to: Int J Adv Manuf Technol
DOI 10.1007/s00170-012-4720-0

There are some errors in the published version of the paper that should be corrected.

- In the Section 3.1 at the line 8, the AA7075 should be AA 5754.
- In the Table 4: S/N_E should be S/N_ϵ
- Equation (9) should be $\gamma_e = \gamma_m + \sum_{i=1}^q (\bar{\gamma}_i - \gamma_m)$
- In the explanation part of Equation (9) γ_i should be $\bar{\gamma}_i$
- Beneath the **Figure 2**. $\Delta_{0i}(2) = \|1 - 0.00\| = 1$ should be $\Delta_{0i}(1) = \|1 - 0.00\| = 1$
- Beneath the **Figure 3**. $\Delta_{min} = (\Delta_{0i}(5))_{UTS} = (\Delta_{0i}(5))_{UTS} = 0$ should be $\Delta_{min} = (\Delta_{0i}(5))_{UTS} = (\Delta_{0i}(5))_\epsilon = 0$
- Beneath the **Table 8**. D/d (50.21 %), WS (37.61 %), and TRS (11.97 %) should be D/d (50.30 %), WS (37.68 %), and TRS (11.89 %)
- In the explanation of **Step 8** $\gamma_e = TR_2 + TRS_2 + WS_3 - 2 * \gamma_m$ should be $\gamma_e = D/d_2 + TRS_2 + WS_3 - 2 * \gamma_m$
- $\gamma_e = 0.802 + 0.71 + 0.715 - 2 * 0.610 = 1.006$ should be $\gamma_e = 0.401 + 0.355 + 0.358 - 2 * 0.305 = 0.504$
- In the explanation of **Step 9** “**0.956 and 1.056**” should be “0.454 and 0.554”
- Beneath the **Table 10**, the equation for GRG should be:
 $GRA = -3.32 - 0.097D/d + 0.0101TRS - 0.0505WS - 0.00168D/d*TRS + 0.0263D/d*WS - 0.00005TRS*WS$

The online version of the original article can be found at <http://dx.doi.org/10.1007/s00170-012-4720-0>.

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