

# Erratum to: Nucleation and Growth of Graphite in Eutectic Spheroidal Cast Iron: Modeling and Testing



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THE following are corrections to the original article:  
In Appendix A, temperature formulas

$$T_{ar}^z = - \left( \sqrt{1.10 \times 10^{11} + 2.74 \times 10^{35}(C_{Si})^2 - 3.25 \times 10^{35}C_{Si} + 1.46 \times 10^{34}} + 1.74 \times 10^{23}C_{Si} - 1.02 \times 10^{23} \right) / 8.53 \times 10^{19}$$

$$T_{A1}^z = - \left( \sqrt{3.47 \times 10^{11} + 1.60 \times 10^{22}(C_{Si})^2 - 2.19 \times 10^{21}C_{Si} + 5.85 \times 10^{19}} + 7.4 \times 10^{16}C_{Si} - 9.85 \times 10^{15} \right) / 7.69 \times 10^{12}$$

$$T_{ar}^P = - \left( \sqrt{2.16 \times 10^{10} + 5.07 \times 10^{20}(C_{Si})^2 - 3.94 \times 10^{20}C_{Si} + 5.23 \times 10^{19}} + 3.08 \times 10^{15}C_{Si} - 2.82 \times 10^{15} \right) / 2.32 \times 10^{12}$$

$$T_{A1}^P = - \left( \sqrt{4.05 \times 10^{11} + 6.72 \times 10^{21}(C_{Si})^2 - 7.3 \times 10^{20}C_{Si} + 7.5 \times 10^{19}} + 5.46 \times 10^{16}C_{Si} + 1.16 \times 10^{16} \right) / 2.4 \times 10^{13}$$

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should be replaced by

$$T_{aT}^z = -\left(\sqrt{1.10 \times 10^{11}} \sqrt{2.74 \times 10^{35}(C_{Si})^2 - 3.25 \times 10^{35}C_{Si} + 1.46 \times 10^{34} + 1.74 \times 10^{23}C_{Si} - 1.02 \times 10^{23}}\right) / 8.53 \times 10^{19}$$

$$T_{A_1}^z = -\left(\sqrt{3.47 \times 10^{11}} \sqrt{1.60 \times 10^{22}(C_{Si})^2 - 2.19 \times 10^{21}C_{Si} + 5.85 \times 10^{19} + 7.4 \times 10^{16}C_{Si} - 9.85 \times 10^{15}}\right) / 7.69 \times 10^{12}$$

$$T_{aT}^P = -\left(\sqrt{2.16 \times 10^{10}} \sqrt{5.07 \times 10^{20}(C_{Si})^2 - 3.94 \times 10^{20}C_{Si} + 5.23 \times 10^{19} + 3.08 \times 10^{15}C_{Si} - 2.82 \times 10^{15}}\right) / 2.32 \times 10^{12}$$

$$T_{A_1}^P = \left(\sqrt{4.05 \times 10^{11}} \sqrt{6.72 \times 10^{21}(C_{Si})^2 - 7.3 \times 10^{20}C_{Si} + 7.5 \times 10^{19} + 5.46 \times 10^{16}C_{Si} + 1.16 \times 10^{16}}\right) / 2.4 \times 10^{13}$$

In Appendix B, Table B-IV, diffusion coefficient of carbon in the liquid ( $D_C^l = 5 \times 10^{10}$ ) is corrected as  $D_C^l = 5 \times 10^{-10}$ .