Erratum: Short-range wetting at liquid gallium-bismuth alloy surfaces: X-ray measurements and square-gradient theory [Phys. Rev. B 68, 085409 (2003)]

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We noticed four typographical errors in our paper. Equations (7) and (8) should read

$$\frac{\partial \Delta g(c(z))}{\partial c(z)} = \kappa \frac{d^2 c(z)}{dz^2} \tag{7}$$

$$z(c) = z_0 + \int_{c^{\mathrm{I}}}^{c} \sqrt{\frac{\kappa}{2\Delta g(c')}}\, dc' . \tag{8}$$

Equation (A7) in the appendix should read

$$g(c,\mathcal{T}) = c \cdot g_0(\mathrm{Ga})(\mathcal{T}) + (1-c) \cdot g_0(\mathrm{Bi})(\mathcal{T}) + R \cdot \mathcal{T}[c \ln(c) + (1-c)\ln(1-c)] + \Delta g_{\mathrm{mix}}(c,\mathcal{T}),$$
$$\Delta g_{\mathrm{mix}}(c,\mathcal{T}) = c(1-c)\sum_{\nu=0}^{5} L_\nu(\mathcal{T})(1-2c)^\nu . \tag{A7}$$

The correct entry for the $\nu=0$ term in the Redlich-Kister polynomial in Table II is $8.000-3389+\mathcal{T}$. However, all results and conclusions of the paper remain unaffected by these changes, as the correct formulas were implemented in the numerical code used for our analysis. The good agreement of recently published experimental data sets of the interfacial tension in Ga-Bi alloys, determined with an acoustic method,[1] with our values, calculated within the square-gradient theory, corroborates this statement.

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[1] V. V. Filippov, D. A. Yagodin, and P. S. Popel, High Temp. **47**, 187 (2009).

