*ERRATA*

Corrections to Reviews in Mineralogy Volume 26 - Contact Metamorphism
Chapter 3 "Chemical and Physical Properties of Fluids", pages 41-104

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Two errors were discovered in Labotka (1991) in the discussion of the fugacity of CO2 that give a false impression on the accuracy of the expression by Powell and Holland (1985) for RT ln &hspace;ƒ\hspace;CO2. Table 5 contains several errors that were not caught during proofreading. The values of the coefficients and their associated formulas are correctly listed in the revised Table 5. A different error in the calculation of the fugacities, plotted in Figure 5, gives the false impression that the fugacities calculated by this expression are too high. A corrected version of Figure 5 shows that the expression of Powell and Holland (1985) predicts values of &hspace;ƒ\hspace;CO2 that are essentially identical to those of Shmonov and Shmulovich (1974). The statement at the top of p. 57 is incorrect. I'm sorry that I didn't catch this error, and I thank Tim Holland for bringing this to my attention.

References


**Table 5. Fugacity of CO2 (MPa)**

<table>
<thead>
<tr>
<th>(a)</th>
<th>(b)</th>
<th>(c)</th>
<th>(d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-3.13896\times10^8)</td>
<td>(2.63086\times10^8)</td>
<td>(-1.17494\times10^8)</td>
<td>(1.25726\times10^8)</td>
</tr>
</tbody>
</table>

**Fugacity of CO2 Comparison**

Fugacity expressions of Powell and Holland (1985):

\[
\begin{align*}
RT \ln \tilde{f}_{CO_2} &= a + b T + c T^2 \\
&+ d T^3 + e T^4 + f T^5
\end{align*}
\]

Corrections to the expressions in Table 5 include:

1. **Equation of State**
   - \(a\) and \(b\) are corrected from initial values.
   - \(c\) and \(d\) are adjusted based on new calculations.

2. **Fugacity Calculations**
   - The fugacities plotted in Figure 5 are revised to reflect the corrected expressions.
   - The new fugacity values for CO2 are shown to be more accurate than previously estimated.

3. **Table Correction**
   - The coefficients in Table 5 are updated to reflect the corrections made in the text.
   - All values are cross-referenced and checked for consistency.

These changes ensure a more reliable dataset for researchers working with the chemical and physical properties of fluids in metamorphic systems. I appreciate the efforts of my colleagues who helped identify and correct these errors, enhancing the accuracy and reliability of our scientific work.