Ca-O (Calcium-Oxygen)

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The Ca-O phase diagram in [Massalski2] was adopted from [1985Wri]. Two possible alternatives were shown (dashed lines in Fig. 1).

[2000Zai] measured vapor pressure over Ca-CaO melts and obtained the CaO liquidus up to 1450 °C. Then the liquidus up to the melting point of CaO was derived using a thermodynamic model. The result is shown in Fig. 1 with a solid line.

The diagram of [1985Wri] is less reliable because extrapolation of the CaO liquidus (either alternative) to the Ca side

will cross the 0 at.% O line unless an unlikely abrupt change of slope is introduced.

References

1985Wri: H.A. Wriedt: *Bull. Alloy Phase Diagrams*, 1985, vol. 6 (4), pp. 337-42.

2000Zai: A.I. Zaitsev, N.V. Korolev, N.P. Lyakishev, and B.M. Mogutnov: *Z. Neorg. Khim.*, 2000, vol. 45 (7), pp. 1234-36 (in Russian); Translation: *Russ. J. Inorg. Chem.*, 2000, vol. 45 (7), pp. 1121-23.

Fig. 1 Ca-O phase diagram