cording to [68Ray]. Although the crystal structure of Be_5Nb was reported to be $CaCu_5$ ($D2_d$) type [77Ray], the lattice parameters were unknown.

[92Bri1] and [92Bri2] examined decomposition processes of sputter-deposited Be-Nb alloys containing 3 to 14 at.% Nb at temperatures up to 450 °C by means of XRD, SEM, etc. No evidence of the Be_5Nb phase was found, and $Be_{17}Nb_2$ was stable to room temperature. Accordingly, [92Bri1] and [92Bri2] preferred the diagram of [Massalski1] in this composition range. A modified Be-Nb phase diagram is shown in Fig. 1. In addition, [92Bri1] observed a homogeneity range in $Be_{12}Nb$ from ~5.5 to 7.8, which is probably due to vacancies on the Nb sublattice.

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Cr-Nb (Chromium-Niobium)

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The Cr-Nb phase diagram in [Massalski2] was redrawn from that of [86Ven], which was primarily based on the work of [61Gol]. The (Nb) liquidus was drawn with a steep slope (>10 000 °C/100 at.%), which is very unlikely [91Oka].

Figure 1 shows the Cr-Nb phase diagram revised by [92Tho] by means of XRD and chemical analyses of equilibrated samples. Invariant reaction temperatures and solid solution ranges have been determined more quantitatively.

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Gd-Mg (Gadolinium-Magnesium)

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The Mg-Gd phase diagram in [Massalski2] was redrawn from [88Nay]. In this diagram, the Mg solidus, (βGd)/(βGd) + MgGd, and (βGd) + (αGd)/(αGd) boundaries were speculative. According to [91Oka], the liquidus curvatures of neighboring compounds cannot be very different. Hence, the liquidus of Mg_2Gd appeared to be too flat in the diagram of [88Nay].

These problems are eliminated in the Mg-Gd phase diagram calculated by [92Cac]. However, the calculated boundaries were not in good agreement with experimental data along the (Mg) solvus and (αGd)/(αGd) + MgGd boundaries. Therefore, the Mg-Gd phase diagram shown in Fig. 1 is drawn by combining appropriate portions of [88Nay] and [92Cac].

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