

Unpaired Forces in the Lattice-Dynamical Properties of Hexagonal Close-Packed (h.c.p.) Metals.

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The matrix elements A_{33} , B_{11} , B_{22} , B_{23} and B_{33} should read as

$$\begin{aligned}
 A_{33} &= (9/8)(c^2/a^2)[4A_1 + A_3] + \\
 &\quad + (3/4)(c^2/a^2)y_2'[24 - 4\{2(2C_1^2 - 1) + 4C_1(4C_2^3 - 3C_2)\}], \\
 B_{11} &= -3A_1[C_1(C_2 - iS_2)C_3] - 3A_3[(2C_1^2 - 1)(2C_2^2 - 1)C_3 + 2iS_2C_2(2C_1^2 - 1)C_3] - \\
 &\quad - 6y_2'\{[(2C_1^2 - 1)(2C_2^2 - 1) + 2C_1C_2 + 4(2C_2^2 - 1) - (1 - 8S_2^2C_2^2)]C_3 + \\
 &\quad + 2iS_2\{4C_2 - C_1\} + C_2[(2C_1^2 - 1) + 2(2C_2^2 - 1)]\}C_3\}, \\
 B_{22} &= -A_1[\{C_1C_2 + 2(2C_2^2 - 1)\}C_3 + iS_2(4C_2 - C_1)C_3] - \\
 &\quad - A_3[\{(2C_1^2 - 1)(2C_2^2 - 1) + 2(1 - 8S_2^2C_2^2)\}C_3 + \\
 &\quad + 2iS_2C_2\{(2C_1^2 - 1) - (2C_2^2 - 1)\}C_3] - 6y_2'\{[6C_1C_2 + (1 - 8S_2^2C_2^2) - \\
 &\quad - (2C_1^2 - 1)(2C_2^2 - 1)]C_3 - iS_2[6C_1 + 4C_2(2C_2^2 - 1) + 2C_2(2C_1^2 - 1)]C_3\}, \\
 B_{23} &= \sqrt{3}(c/a)A_1[S_2(C_1 + 2C_2)S_3 + i\{C_1C_2 - (2C_2^2 - 1)\}S_3] + \\
 &\quad + (\sqrt{3}/2)(c/a)A_3[2S_2C_2\{(2C_1^2 - 1) + 2(2C_2^2 - 1)\}S_3 + i\{(1 - 8S_2^2C_2^2) - \\
 &\quad - (2C_1^2 - 1)(2C_2^2 - 1)\}S_3] + 3\sqrt{3}(c/a)y_2'[2S_2C_2\{2(2C_2^2 - 1) + (2C_1^2 - 1)\}S_3 + \\
 &\quad + i\{(1 - 8S_2^2C_2^2) - (2C_1^2 - 1)(2C_2^2 - 1)\}S_3], \\
 B_{33} &= - (3/2)(c^2/a^2)A_1[\{2C_1C_2 + (2C_2^2 - 1)\}C_3 + 2iS_2(C_2 - C_1)C_3] - \\
 &\quad - (3/8)(c^2/a^2)A_3[\{2(2C_1^2 - 1)(2C_2^2 - 1) + (1 - 8S_2^2C_2^2)\}C_3 + \\
 &\quad + 4iS_2C_2\{(2C_1^2 - 1) - (2C_2^2 - 1)\}C_3].
 \end{aligned}$$