

Erratum: “Magnetic properties of undoped and Co-doped n-type β -FeSi_{2.5} single crystals” [J. Mater. Res. 17, 2960–2965 (2002)]

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In the title of this paper (and also in several places in the text), the chemical notation for the orthorhombic semiconducting iron disilicide is given incorrectly. In the whole paper, the chemical formula “ β -FeSi_{2.5}” should be replaced by the formula “ β -FeSi₂”.

The needle-like single crystals used for the studies in this paper were grown by chemical vapor transport using iodine as a transport agent. The starting Si/Fe ratio in the transport ampoule was chosen as 2.5. This ratio means that the index 2.5 corresponds to the source composition, but not to the composition of the growing crystals. The Si/Fe and Si/(Fe+Co) ratio for our undoped and Co-doped samples, respectively, was found to be near 2 as measured by microprobe analysis.

Further on, the discussion of the phase kinetics within the Fe-Si system in the paper’s introduction needs also a correction. On page 2960, the right column, in the third paragraph, there should be a change in the first sentence so that it reads:

“ β -FeSi₂ shows a narrow range of homogeneity near the atomic ratio Si/Fe of 2.¹⁸ Undoped and Co-doped β -FeSi₂ single crystals were grown (in most cases) using the composition of the starting material as equal to the atomic ratio Si/Fe = 2 of the disilicide. Additionally, the ratios 2.5 and 1.5 were chosen to ensure a growth of crystals at the upper and the lower boundaries of the homogeneity range of β -FeSi₂.¹⁹ Recently, Si-rich β -FeSi₂ and Co-doped β -FeSi₂ single crystals were grown.”^{18,19}

REFERENCES

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