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Magnetic and calorimetric study of the magnetocaloric effect in intermetallics exhibiting first-order magnetostructural transitions

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Magnetic and Calorimetric Study
of the Magnetocaloric Effect
in Intermetallics Exhibiting First-order
Magnetostructural Transitions

GaoFeng Wang

En este trabajo se caracteriza el efecto magnetocalórico en compuestos intermetálicos con transiciones magnetoestructurales de primer orden. Estas transiciones conllevan histéresis térmica y magnética que afecta a la determinación del cambio de entropía isotérmico y del incremento adiabático de temperatura al variar el campo. Se han utilizado medidas directas y métodos indirectos con magnetización y calor específico. Los valores resultantes difieren en función del proceso de medida y por irreversibilidad. Estos materiales son candidatos para uso en refrigeración.

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