Measurements of magnetocaloric effect in 
$LaFe_{11.14}Co_{0.66}Si_{1.2-x}Al_x$ (x=0.1, 0.2, 0.3) alloys

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In present work, phase constitution and termomagnetic properties of 
$LaFe_{11.14}Co_{0.66}Si_{1.2-x}Al_x$ (where x= 0.1, 0.2, 0.3) alloys were investigated. 
Ingot samples were obtained by arc – melting under the low pressure Ar atmosphere. 
Subsequently samples were annealed at 1323K for 15 days. X-ray diffraction of 
all samples revealed coexistence of two crystalline phases dominant $La(Fe, Si)_{13}$ – type and minor bcc α-Fe. Furthermore, the magnetic measurements at various temperatures allowed to study Curie temperature, magnetic entropy changes and cooling capacity. Additionally, magnetic investigations allowed to determine the order of phase transition from ferro- to paramagnetic state.

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