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Abbreviations

HEA	: High Entropy Alloy
RHEA	: Refractory HEA
LDHEA	: Low-Density HEA
LWHEA	: Light Weight HEA
YS	: Yield Strength
IM	: Intermetallics
XRD	: X-ray Diffraction
BPR	: Ball to Powder Ratio
SE	: Secondary Electron
MA	: Mechanical Alloying
SPS	: Spark Plasma Sintering
HIP	: Hot Isostatic Pressing
VIM	: Vacuum Induction Melting
HEBM	: High Energy Ball Milling
BSE	: Back-Scattered Electron
CCA	: Complex Concentrated Alloy
SEM	: Scanning Electron Microscopy
ODS	: Oxide Dispersion Reinforced
EDS	: Energy Dispersive X- ray Spectroscopy
DSC	: Differential Scanning Calorimetry
VEC	: Valence Electron Concentration
VHP	: Vacuum Hot Pressing and Sintering
TEM	: Transmission Electron Microscopy
ICDD	: International Centre for Diffraction Data
LWEFM	: Light Weight Environmentally Friendly Materials

Symbols

k	:	Boltzmann constant
S	:	Configurational entropy
W	:	Number of possible configurations
ΔS_{conf}	:	Change in configurational entropy
R	:	Gas constant
ΔG_{mix}	:	Gibbs free energy change due to mixing
δ	:	Atomic size difference
ΔH_{mix}	:	Enthalpy of mixing
ΔS_{mix}	:	Entropy of mixing
T_m	:	Melting point
σ	:	Sigma phase
σ_y	:	Yield stress
Ms	:	Saturated magnetization
χ	:	Permeability
λ	:	Wave length
β	:	Peak broadening
t	:	Crystallite size