











Magnetic refrigeration: an eco-friendly technology for the refrigeration at room temperature. *Journal of Physics: Conference Series* 655. <https://doi.org/10.1088/1742-6596/655/1/012026>

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## NOMENCLATURE

B	magnetic field induction, T
C	specific heat, J. kg <sup>-1</sup> . K <sup>-1</sup>
H	magnetic field, A. m <sup>-1</sup>
k	thermal conductivity, W.m <sup>-1</sup> . K <sup>-1</sup>
M	magnetization, A. m <sup>-1</sup>
Q	energy, J
Q*	power density, W. m <sup>-3</sup>
p	pressure, Pa
s	entropy, J. kg <sup>-1</sup> . K <sup>-1</sup>
T	temperature, K
t	time, s

u	longitudinal fluid velocity, m.s <sup>-1</sup>
v	orthogonal fluid velocity, m.s <sup>-1</sup>
W	work, J

## Greek symbols

Δ	finite difference
μ	dynamic viscosity, kg. m <sup>-1</sup> . s <sup>-1</sup>
ν	cinematic viscosity, m <sup>2</sup> . s <sup>-1</sup>
ρ	density, kg. m <sup>-3</sup>
τ	time period of the cycle, s

## Subscripts

0	minimum
1	maximum
ad	Adiabatic
C	cold heat exchanger
f	fluid
H	hot heat exchanger
P	constant pressure
ref	refrigerant
rej	rejected
s	solid