

SEMINARIUM Z MAGNETYZMU I NADPRZEWODNICTWA

Uprzejmie zawiadamiamy, że w **środe**

3 marca 2021 r., o godz.10:00

odbędzie się seminarium **on-line (link podany jest na stronie IF PAN),**

na którym

dr hab. inż. Piotr Gębara, prof. P.Cz.

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wyłosi referat na temat:

**“Structure and magnetic properties of the
La(Fe,Si)₁₃-type alloys modified by selected
lanthanides (Ce, Pr, Ho, Dy) and transition metals
(Mn, Ni, Co)”**

The giant magnetocaloric effect observed in the La(Fe,Si)₁₃-type alloys qualifies these materials as active magnetic regenerators in magnetic refrigerators. The lecture presents fundamentals of the magnetocaloric effect as an environment-friendly cooling technique. Moreover, the influence of partial substitution of La by Ce, Pr, Ho or Dy and Fe by Mn, Ni and Co on the structure and magnetic properties will be presented. Further part of presentation will be focused on analysis of thermomagnetic properties (the Curie temperature and magnetic entropy change) and investigation of phase transition based on the Landau theory or construction of universal scaling curve. Furthermore, an occurrence of the negative thermal expansion in the La(Fe,Si)₁₃ and anomalous thermal expansion of the α -Fe in the La(Fe,Si)₁₃-type alloys will be discussed.

Serdecznie zapraszamy

Roman Puźniak
Andrzej Szewczyk
Henryk Szymczak