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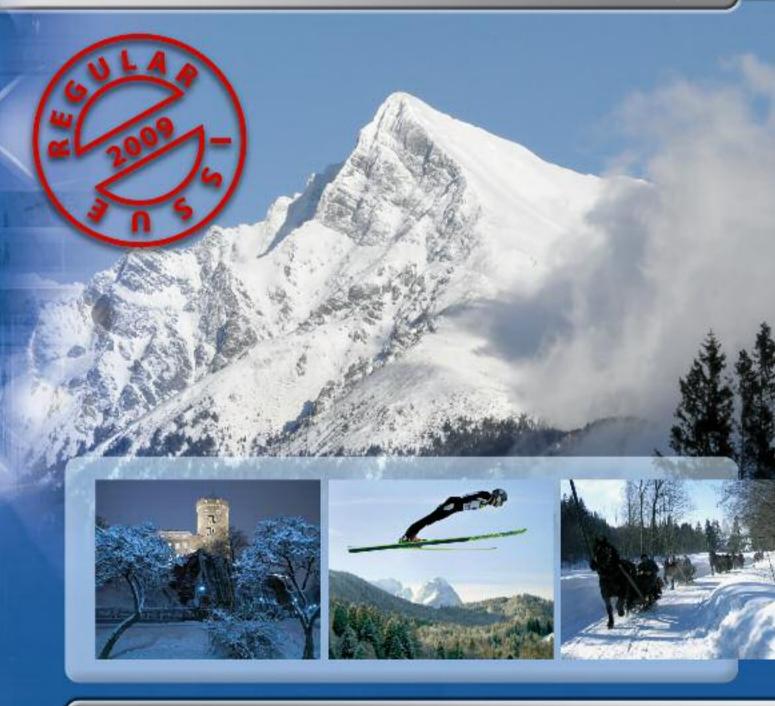
## of Achievements in Materials and Manufacturing Engineering



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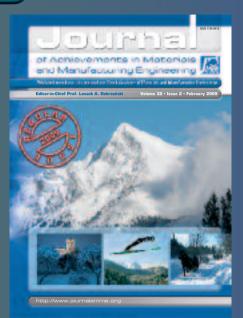
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#### Cover story

Winter. A glorious season of the year. The entire Northern Hemisphere from Alaska to Sakhalin covered snow at the turn of not only Alps and swarmed with of covered roads and streets posing many problems to carriers and also to community services. Many kids are filled with joy. Sledging, skiing, skating, with snowballs and making a snowman these are the common delights.



cades, skeering and also skidoo rides belong to the winter attractions in many regions. On the cover one of the snow-covered peaks in the Alps in Europe can be seen. The small picture shows the snow-covered Cracow, one of the Renaissance pearl of the architecture in the Italian style in Poland. The next picture comes from the ski-jumping competition in Whistler in Canada, where the next Winter Olympics is planned for the next year. The last picture presents the traditional sleigh ride in the north-east Poland. Winter is an occasion to the deliberation on materials for service at the low and in cryogenic conditions. The detailed information can be found in the Editorial

#### Selected materialographical photo



The Materials section represented by J. Dobrzański, A. Zieliński and M. Sroka on "Microstructure, properties

investigations and methodology of the state evaluation of T23 (2,25Cr-0,3Mo-1,6W-V-Nb) steel in boilers application" on a page 142 presents the classification of the structure's changes and the development of precipitation processes and the internal damages related to the exhaust degree of material working in creep conditions to use in the materials diagnostics. The paper presents investigation results in the area of the changes of mechanical properties and structure of the T23 steel resulting from the long term impact of temperature and load in conditions corresponding to the service ones. The influence on mechanical properties and structure after long-lasting temperature and load exposition was estimated. Schemes of structure changes and inner

failures after exposition in creep condition were worked out. The worked out methodology of evaluation of the material's state after exploitation in creep conditions can be used in the material's diagnostics of element working in power industry.