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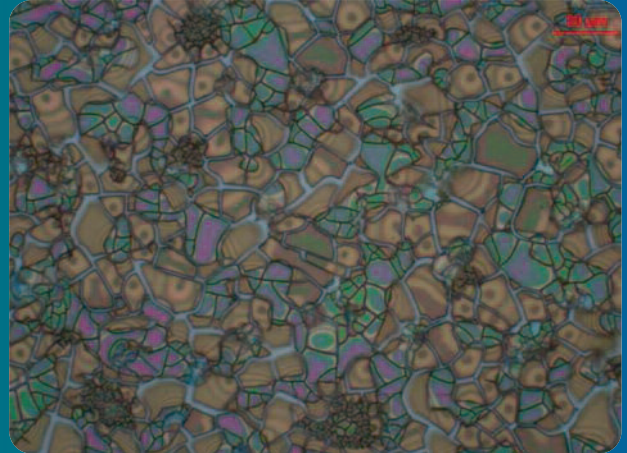


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## Selected materialographical photo



M. Rosso, I. Peter, D. Suani in paper entitled "About heat treatment and properties of Duplex Stainless Steels" on a **page 26** describe the effect of heat treatments and of strain hardening

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on microstructure and properties of superduplex stainless steels. Series of bars with increasing diameter have been observed and analysed after annealing treatment, as well as after strain hardening by drawing process. Some presence of  $\sigma$  phase has been detected on the annealed bars, while the strain hardened one were containing only few small precipitated particles containing alloying elements, mainly Si and W, or Mn and Mo. The precipitation of  $\sigma$  phase trough the decomposition of the ferrite was caused by the execution of some ageing treatments, to demonstrate the importance of the heat treatment parameters, especially temperature and cooling rate on the microstructural constituents of Duplex Stainless Steels products and consequently on their mechanical properties and corrosion resistance.





## Dear Readers,

There are places where it is worth being at least once per life, even though people live there permanently. But holidays in Europe induce to travel. Maybe just here... The Northwest Territories is one of three federal territories of Canada. The NWT's geological resources including gold, diamonds, natural gas and petroleum and two of the biggest mineral resource companies in the world are interesting, BHP Billiton and Rio Tinto mine many of their diamonds from the NWT. NWT accounted for ca. 30% of Rio Tinto's total diamond production (3.9 million carats from the Diavik Diamond Mine) and 100% of BHP's (3.05 million carats from the Ekati Diamond Mine). The Northwest Territories has the highest per capita GDP more as C\$ 75,000 of all provinces or territories in Canada. On the cover the Dempster Highway that connects the Klondike Highway in the Yukon to Inuvik, Northwest Territories on the Mackenzie River delta and extends 736 km is seen. During the winter months, the highway extends another 194 km to Tuktoyaktuk, on the northern coast of Canada, using frozen portions of the Mackenzie River delta as an ice road. Construction of the 140 km all-weather extension to Tuktoyaktuk commenced in April 2013. The design of the highway is unique, primarily due to the intense physical conditions it is put through. The highway itself sits on top of a gravel berm to insulate the permafrost in the soil underneath. The thickness of the gravel pad ranges from 1.2 m up to 2.4 m in some places. Without the pad, the permafrost would thaw and the road would sink into the ground. The Dempster Highway only all-weather road to cross the Arctic Circle. It crosses the Peel River and the Mackenzie Rivers using a combination of seasonal ferry service and ice bridges. The next photos show the part of the Mackenzie River which is the largest and longest river system in Canada. The river's mainstream runs 1,738 kilometres and with its tributaries is one of the longest rivers in the world. Inuvik (place of man) is a town in the Northwest Territories located on the East Channel of the Mackenzie Delta, approximately 100 km from the Arctic Ocean and approximately 200 km north of the Arctic Circle. Inuvik's Our Lady of Victory Church, often called Igloo Church, is a famous landmark in the region and is seen in the photo. That region due to northern location, experiences an average of 1000 h of continuous sunlight every summer from 30<sup>th</sup> May to 11<sup>th</sup> July, what is documented by the next photo of the shoulder of the Dempster Highway. We are handing over the next issue of JAMME to PT Readers.

Gliwice, in June 2013

Prof. Leszek A. Dobrzanski M Dr hc  
Editor-in-Chief of the JAMME  
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