The growing focus on arctic oil/gas exploration and production has raised the need for new industry practices and standards for materials selection, qualification and design for structures. Challenges in arctic operations include low temperatures that are encountered (i.e. design temperatures down to -60°C) and large temperature variations between summer and winter. Yet another aspect is the potentially large deformations that may be imposed on pipelines and structures due to frost heave, thaw settlement, or iceberg scour. Due to the harsh weather and poor light conditions, transportation, installation and maintenance work can be very challenging. Emissions from the operation and large operational “foot-print” must be controlled to minimize environmental impact. In order to pursue exploration in arctic areas it is necessary to develop robust structures which are easy to deploy and maintain. Key factors in this picture are materials and welding technology. Thus, a special symposium is being organized to provide the scientific-industrial community an insight of new materials and technology development in the subject of "Arctic Materials".

Suggested Topics

- Materials development (steels, composites, etc)
- Welding consumables
- Welding technology
- Low temperature properties
- Mechanisms of embrittlement
- Large deformations
- Testing and evaluation methods
- Modelling and simulation
- Design, safety and risks
- Codes and standards development

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Interested authors should send abstracts to one of the organizing committee members or submit online at http://www.isope.org/call4papers/2015/HowToSubmitAbstractOnline.htm. The abstracts must include the contact author’s postal address, e-mail address, phone and fax numbers.