NTNU

Kunnskap for en bedre verden

Jobbnorge-ID: 120005
Søknadsfrist: Closed
Nettside:
Omfang:
Varighet:

PhD position within deformation behaviour of aluminium alloys

The Norwegian University of Science and Technology (NTNU), Dept. of Material Science and Engineering in Trondheim offers a PhD position in the field physical metallurgy of aluminium alloys. Applicants must have an educational background (MSc) in materials science and engineering, metallurgy, physics, chemistry or equivalent. The topic of the thesis is related to plastic deformation behaviour (work hardening) of aluminium alloys with a special focus on solute-dislocation interactions and the corresponding Portevin de Chatelier (PLC) effect. The PhD work will involve mechanical testing and microstructure characterization as input for calibration and further development of models for work hardening and dynamic strain aging effects. Competence and experience with various microstructural characterization techniques like scanning and transmission electron microscopy (SEM/TEM) and X-ray diffraction and/or mathematical/numerical modelling and simulation techniques related to crystal and continuum plasticity and microstructure evolution, are required.

The PhD project is part of the research project CASA, appointed by the Research Council of Norway as a Centre for Research-based Innovation (SFI) for the period 2015-2023. The objective of the SFI scheme is to strengthen Norwegian research groups that work in close collaboration with partners from industry and public enterprises in order to support long-term research that promotes innovation and value creation. The partners in the Centre are Aker Solutions, Audi, Benteler Aluminium Systems, BMW Group, Det Norske Veritas (DNV), Gassco, Honda R&D Americas, Hydro, Norwegian National Security Authority (NSM), Ministry of Local Government and Modernisation, SSAB, Norwegian Defence Estates Agency (NDEA), Norwegian Public Roads Administration (NPRA), Sapa, Statoil, and Toyota Motor Europe. The main objective of the Centre is to establish a leading international centre in multi-scale testing, modelling and simulation of materials and structures for industrial applications.

Detailed information on our PhD programs is found at: http://www.ntnu.no/nt/english/phd

The regulations for PhD programs at NTNU state that the applicant must have a master degree or equivalent with at least 5 years of studies and an average grade of A or B within a scale of A-E for passing grades (A best) and C or better on the BSc. Candidates from universities outside Norway are kindly requested to send a Diploma Supplement or a similar document, which describes in detail the study and grade system and the rights for further studies associated with the obtained degree: http://ec.europa.eu/education/policies/rec_qual/recognition/diploma_en.html

Applicants must agree to participate in organized doctoral study programs within the period of the appointment. A contract will be drawn up regarding the period of appointment and work related duties.

The position requires spoken and written fluency in the English language. Applicants from non-English-speaking countries outside Europe must document English skills by an approved test.

The appointment of the PhD will be made according to Norwegian guidelines for universities and university colleges and to the general regulations regarding university employees. All applicants must be able to communicate fluently in English (in speaking and writing). PhD scholarship recipients are employed for three years in the position. The start salary for the PhD research fellow is set at level 50, NOK 430 200 (before tax) in the Norwegian state salary scale. 2 % of the salary will be deducted at source as a mandatory premium to the Norwegian State Pension Fund.

For further information please contact:
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Department of Materials Science and Engineering

Information on the Department of Materials Science and Engineering, NTNU can be found at http://www.material.ntnu.no

The application should contain:
• CV including certificates from Bachelor and Master as well as Reference letters.
• List of publications with bibliographical references.
• Documentation of English language proficiency (e.g. TOEFL, IELTS, etc.) if English or a Scandinavian language is not the applicant's mother tongue.
• A statement on when the applicant can start in the position if selected.

Applications must be submitted electronically through this page. Applications submitted elsewhere will not be considered.

Mark the application with ref.no NT 81/15.

Application deadline: 17. January 2016

Tilleggsinformasjon

Arbeidssted: