NTNU

Kunnskap for en bedre verden

Jobbnorge-ID: 98482
Søknadsfrist: Avsluttet
Nettside:
Omfang:
Varighet:

Postdoc fellowship (2 years) available on “Process control and microstructure design of aluminium extrusions”

The postdoc position will be a part of a industry initiated research project recently established by Sapa Norway, Eker Design, and the research partners NTNU and SINTEF. It is a 3-years collaborative research programme co-funded by the Research Council of Norway on: **Next Generation Extrusion Technology for High Performance Cosmetic Application-COSMETEX.** The objective of the project is development and implementation of robust alloy, extrusion process and die technology to meet customer requirements on maximum grain size, grain size homogeneity, texture and particle structure by applying fundamental understanding of recrystallization and precipitation in extrusion of dispersoid-free AlMgSi-alloys (AA6xxx type alloys).

The post doctor will primarily be allocated to activities involving implementation, use and further development of relevant models for microstructure and texture evolution during extrusion of 6060 and 6063 aluminium alloys. The candidate is expected to work closely related to the experimental activities and preferably take part in experimental work himself/herself. The work will include planning and carrying out of critical experiments to establish an improved understanding and quantitative description of the phenomena studied, their transformation into mathematical/numerical models, and finally validation of these models against experimental results obtained within the project.

Requirements
Applicants must hold a PhD in materials science and engineering, metallurgy, physics, chemistry or equivalent. Moreover the candidate should have a good knowledge of physical metallurgy and experience with and interest for modelling and simulations of microstructure and properties of metals and alloys during thermo-mechanical processing, preferably aluminium. Moreover, experience with advanced nano-/microstructure characterization techniques (e.g. SEM, TEM, DSC, X-rays) as well as variou methods for mechanical testing would also be beneficial. The candidate will be employed by theNorwegianUniversityof Science and Technology (NTNU) for a period of two years.

Context
This project will be carried out as a collaborative work between SINTEF Materials and Chemistry (M&C), the Departments of Materials Science and Engineering, NTNU and the industrial partners SAPA and Eker Design. The postdoc will be employed at NTNU and will be part of a research team of PhD-students, SINTEF researchers and NTNU professors working on this project.

NTNU is located inTrondheimand represents academic eminence in technology and the natural sciences as well as in other academic disciplines ranging from the social sciences, the arts, medicine, architecture, to fine art.

SINTEF is the largest independent research organisation inScandinaviaand perform contract-research in various fields such as health, marine, materials science, applied chemistry, petroleum, energy, technology management and building/construction.

Postdoc fellowships (Code 1352) start at a salary of NOK 473 100 per year (before tax). This corresponds currently to approximately 59.000 EUR per year. The salary is subject to normal taxation by city and government authorities, as well as a statutory 2 % deduction for contribution to the Norwegian government pension scheme.

The application should contain:

- CV, including list of publications with bibliographical references
- Testimonials and certificates
- A brief description of the candidate’s research experience and interests
- Other documents which the applicant would like to present

Further information regarding the position can be obtained by contacting Professor, Knut Marthinsen, e-mail: knut.marthinsen@ntnu.no, tlf. + 47 73593473.

Information about the department can be found online at: http://www.ntnu.no/materialteknologi/english

Applications should be sent electronically through this page.

The reference number of the position is: NT-84/13

Application deadline: 5 January 2014

Tilleggsinformasjon

Arbeidssted: