



Postdoctoral Researcher with focus on surface modification of 3D packaging

Karlstad University / Department of Engineering and Chemical Sciences

Karlstad University takes pride in combining active external cooperation with academic excellence. Karlstad University has around 16 000 students and a staff of over 1 200 members. Democratic principles, equality and diversity are cornerstones of the University. We value the enriching presence of diverse backgrounds and competencies among students and staff.

Background

The research group "Functional Surfaces and Sustainable Materials" in Chemical Engineering at Karlstad University has a long history of research on sustainable coating of cellulose fiber-based packaging materials to achieve good barriers and functional properties. The research is frequently of multidisciplinary character and the group belongs to the research environment Processes and Products for a circular BioEconomy (Pro2BE, <https://www.kau.se/pro2be>) at Karlstad University. The Functional Surfaces and Sustainable Materials research group is active in international, national and regional networks and collaborative projects. In a recently launched project that includes manufacturing and surface treatment of paper-based 3D packaging, we need to strengthen our group with a postdoctoral researcher. The project is jointly funded by the strategic innovation program BioInnovation and participating Nordic industrial partners. The ability to manufacture functional and consumer-friendly 3D packaging from renewable raw materials is in line with the intentions of Pro2BE and BioInnovation to promote a transition to a bioeconomy based on circularity of renewable resources.

In the current project, the focus of Karlstad University's part of the project is processes and materials for good gas barriers of 3D cellulose fiber-based packaging. The project includes close cooperation with leading companies in the materials and process areas participating in the project.

The strategic innovation program BioInnovation is part of Sweden's innovation agency Vinnova's, Swedish Energy Agency's and Swedish Research Council Forma's joint venture in strategic innovation areas. BioInnovation supports the transition to a circular bioeconomy by supporting research activities that develop the properties and uses of bio-based materials.

Duties

The position as postdoctoral researcher is placed in the group "Functional Surfaces and Sustainable Materials" within Chemical Engineering at Karlstad University. The research area of this postdoctoral appointment is within environmentally friendly surface modification of packaging. More specifically, the postdoctoral position is addressed to barrier coating of 3D paper-based packaging intended to be in contact with food. The tasks include to develop and understand relevant materials and processes, in collaboration with other researchers active in the project. Both material and process research issues will be addressed. Innovative non-conventional paper coating techniques will be explored. You will work closely together with other researchers in a research environment with experience in the field of advanced coating of packaging materials. Parts of the work will be carried out in close collaboration with national research institutes and with the Nordic industrial companies, which are part of the consortium.

Qualification requirements

To be eligible for the position, applicants are required to hold a PhD in Chemical Engineering, Material Science, Polymer Technology, Paper Technology or Physical Chemistry or another area relevant for the project or have another degree with the equivalent qualifications. The candidate must have completed the degree no more than three years before the last date for applications, unless special ground exists. The applicant must have a good command of English (written and oral).

Assessment criteria

Considerable weight is given to applicants' academic merits and particularly to publications in international peer-reviewed scientific journals related to the current research areas. The evaluation will be based on an assessment of the applicant's ability to successfully perform advanced research addressed to sustainable surface treatment of paper-based 3D packaging. Good ability to work in teams and a positive attitude towards colleagues are of considerable weight. The evaluation will also be based on the

applicant's ability to work in an innovative research network consisting universities, institutes and industrial enterprises of different size.

Terms of Employment

The position is a full-time employment for research. The employment is limited to two years. The starting date is by mutual agreement within the time span from the end of the application period to December 1, 2017. An early start is desirable.

Application

Application should include well documented qualifications. Applicants are responsible for submitting a complete application in accordance with the advertisement and for ensuring that the documentation allows for objective and qualitative assessments. A complete application should be submitted no later than the application deadline.

The application should include:

- Application letter briefly describing the applicant's qualifications and research interests in relation to the duties of the position
- Detailed list of qualifications/CV
- List of publications
- Copies of relevant transcripts, degree certificates, employment certificates and letters of recommendation
- Copy of doctoral thesis and other relevant publications
- Other documents the applicant wants to submit
- Information on language skills
- Contact information to at least two references

Submit your application via the university's web based recruitment tool and attach all the documents and publications you wish to be considered to the electronic application (do not provide links to them).

One copy of documents that cannot be submitted electronically should be sent to

Karlstads universitet
Registrator
651 88 Karlstad

State ref.no: REK2017/195

Application deadline: September 1, 2017

We look forward to your application!

Karlstad University has chosen advertising channels for this recruitment and decline any contacts from advertising or recruitment agencies.

Type of employment	Temporary position longer than 6 months
Contract type	Full time
First day of employment	By mutual agreement, within the time span from the end of the application period to December 1, 2017.
Salary	Monthly, Salary is set individually
Number of positions	1
Working hours	100%
City	Karlstad
County	Värmlands län
Country	Sweden
Reference number	REK2017/195
Contact	Helena Håkansson, prefekt + 46 (0)54 700 1655 Lars Järnström, professor + 46 (0)54 700 1625

Union representative

Thomas Bragefors, SACO +46 (0)54 700 1714

Tony Ingemarsson, OFR +46 (0)54 700 1404

Denita Gustavsson, OFR +46 (0)54 700 1434

Published

2017-06-19

Last application date

2017-07-19

Link to ad

<http://kau.mynetworkglobal.com/what:job/jobID:157918/>