

Pomegranate peel transformed into bioplastics for food packaging

The food industry is constantly seeking to improve its packaging options to be able to offer safer products. For this reason, research has moved, for example, towards the creation of plastics that are more environmentally-friendly and which have a positive impact on the properties of the food content.

In this context, Tamara Martínez, a student at the Food School of the Pontificia Universidad Católica de Valparaíso (PUCV) and developer of the project, has come up with an innovative bioplastic extracted from the shell of pomegranates which, in addition to acting as a container, has antioxidant properties. "We used an extract of the shell of pomegranates to extract the active agents present and take advantage of their functional properties. To obtain these agents, it is necessary to subject the shells to an extraction process using solvents, and then recover the extracts, which are subsequently added to the biopolymer matrix," explained the student.

Martínez added that after the process described above, a bioplastic was obtained with the presence of antioxidant compounds, which will be released gradually to the packaged food, extending its shelf life and improving its quality.

For his part, Pablo Ulloa, coordinator of the project and teacher of the PUCV, commented that although the first results are positive, they are still at the testing stage. "In order for it to be adopted by the packaging industry, it will first be necessary to carry out more in-depth research, as well as make progress in the optimisation of the processes required to obtain the active films, because the results obtained so far work at laboratory scale

Source <http://www.freshplaza.com/article/170514/Pomegranate-peel-transformed-into-bioplastics-for-food-packaging>