With growing knowledge about the importance of food in preserving health, the food industry is challenged to make technological improvements and development of new food products with high nutritional and functional values. Therefore, in recent years food industry is rapidly developing new non-thermal food processing techniques like non-thermal plasma, pulsed electric field, high hydrostatic pressure and high intensity ultrasound. These new non-thermal techniques are effective at room temperature or at slightly elevated, which reduces negative heat effects on the nutrient composition and food quality. However, to get high quality functional food products, based on customer’s needs, it is crucial to enhance food by adding bioactive compounds, isolated from plants. New non-thermal techniques are considered “green” extraction methods for isolation of bioactive compounds, because conventionally used organic solvents for extraction can be replaced by water or other green solvents like D-limonen, dimethyl carbonate (DMC) and others. High voltage electrical discharge-plasma (HVED) is one of new promising green techniques. Methodology of extraction process using high voltage discharge plasma in liquids includes following: high-voltage discharge in liquids results in a rupture of the cell plant tissue which greatly improves extractions of valuable components from plant material as well as various by-products.

**Biography**

Anet Rezek Jambrak is currently an Associate Professor in the University of Zagreb since September 2013. She was awarded with a PhD degree in Food Science and Technology in 2008. She has 36 peer-reviewed papers coined to her name along with 15 other papers, 5 book chapters (Wiley, Springer, Nova-publisher, Elsevier). Her articles are cited over 850 times in Web of Science, Scopus); and >1100 times in Google Scholar.

anet.rezek.jambrak@pbf.hr

**High voltage electrical discharge plasma in extraction processes**

Notes: