**Cover Letter**

Recently we were informed that after an additional round of reviews our  paper “Application of REA method to a convective drying of apple ring at ambient temperature” presented at I3M 2018 has been selected for publication in a **Special Issue of the International Journal of Food Engineering, De Gruyter**.

We were requested, that current 'submission must be completely different from the conference article, therefore you are asked to make it a new, original work'.  Following your recommendation, we have developed and incorporated into our manuscript more than 50% of new material.

Hence, this study expands further on the work mentioned above and focuses on the convective drying of apple rings without any extra-heating of the processing ambient air. The lumped reaction engineering approach (REA) model has been employed to determine the rate of drying for the apple rings under forced convection considered as a normal processing regime. The algorithm implies determination the activation energy curve from the accurate ‘reference’ measurements of the drying rate under natural convection conditions. Mass transfer coefficients for the apple ring samples under natural and forced conditions required for the model implementation were obtained in the series of customised experiments. The values of mass transfer coefficients were also obtained by numerical simulation of convective mass transfer using COMSOL Multiphysics® v.5.3 package. The study does extend the application of REA for the case of convective drying of thick samples under ambient temperature condition.

However, because Dinmukhamed Bulegenov and Aigerim Sekerbayeva already have graduated and were unable to participate in this work, I called in Year 4 student Alibek Kopbayev and Year 3 student Temirlan Shildebayev to carry out the extended research work. Herewith we submit the manuscript  titled  “Utilization of REA-method to a convective drying of apple rings at ambient temperature"  with S.Spotar, S. Saliyeva, A. Kopbayev, and T.Shildebayev as authors.

In the manuscript, we reference to  I3M 2018 conference  paper, hence D. Bulegenov's and A.Sekerbayeva's contribution into this research item are accounted for. Surely, Dinmukhamed and Aigerim were informed about this matter, and they have no objections.

Sergey Spotar,

Submitting author

E-mail: sergey.spotar@nu.edu.kz