



SECOND INTERNATIONAL CONFERENCE «INTEGRATION NETWORK OF THE PHARMACEUTICAL ECOLOGY - 2024»

OPTIMISATION THE BASE OF UBTAN WITH DIHYDROQUERCETIN FOR THE PREVENTION OF COUPEROSIS

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Goal

Optimisation of ubtan composition by protein-containing components based on the study of DHQ binding to proteins.

Strategic objective

Ubtan formulation development

Tactical objective

Study of the binding of DHQ to the presumed components of ubtan

Objects of research

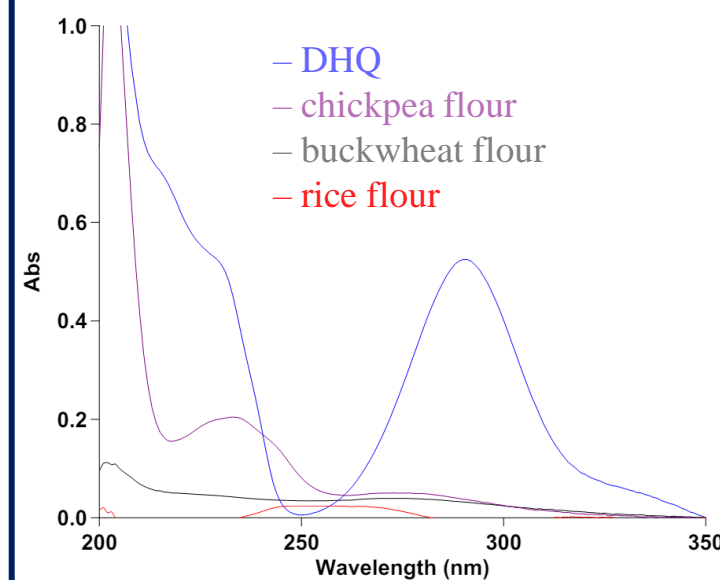
Active substance: dihydroquercetin produced by Ametis JSC (Blagoveshchensk, Russia)

Protein-containing components: buckwheat and rice flour MAKFA produced by TD 'Endaxi' LLC (Vladimir, Russia); chickpea 'TURECKY PEAS' produced by 'Mistral Trading' LLC (Podolsk, Russia)

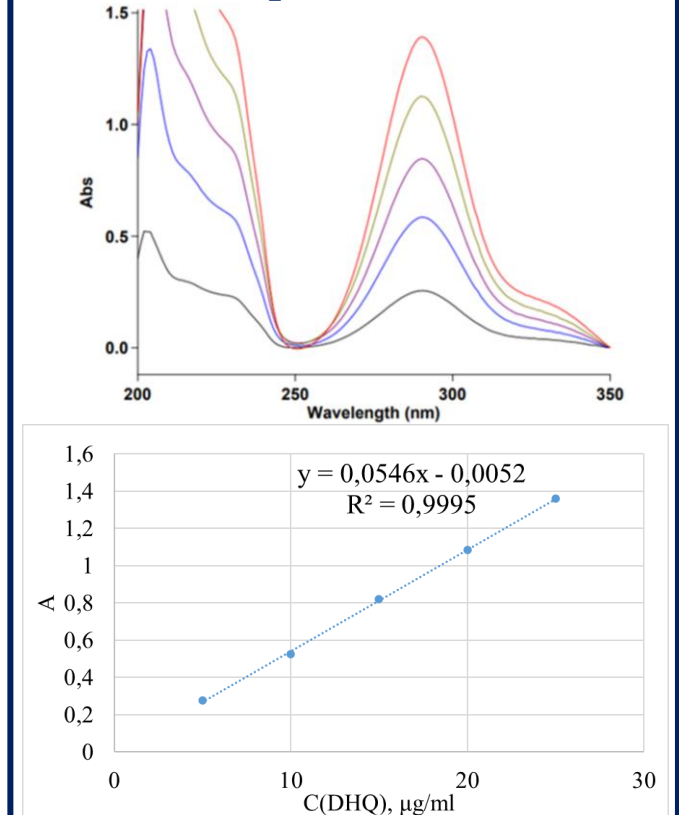
Solvents: ethanol (Uvasol® Merck Darmstadt, Germany), distilled water

Spectrophotometry

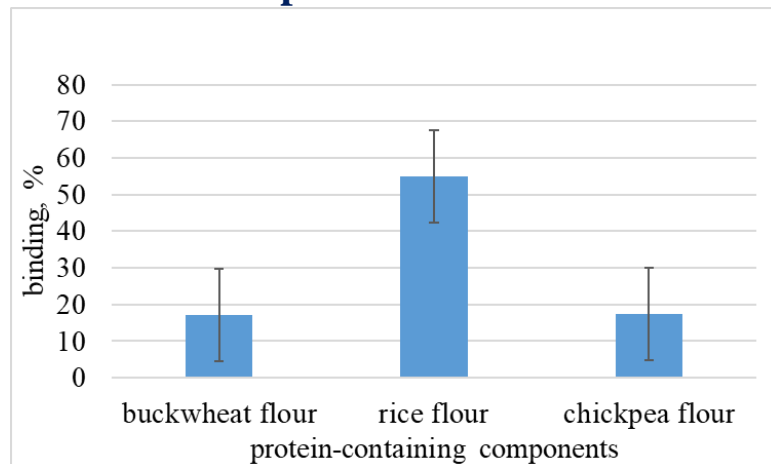
Equipment: Cary 100 spectrophotometer (Varian, Palo Alto, USA)



Calibration spectrum of DHQ



Processed compositions



Different binding patterns

Dispersibility and particle size

analytical sieving

Intermolecular interactions due to the nature of proteins

protein fractions composition study

Conclusion

The binding of DHQ to protein-containing components of ubtan was determined. The maximum binding was observed with rice flour proteins. It was found that the presence of aqueous medium is a factor that significantly increases the binding of DHQ to protein-containing components of ubtan.