

Curricula vitae for each principal investigator of Latvia Pawel Gornas

Nationality: Poland

Date and place of birth: June 01, 1979, Srem, Poland

Degree, title and position: Dr.sc.ing., scientist

Institution: Latvia State Institute of Fruit Growing

Marital status: Single

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Education

Poznan University of Life Sciences, Poland, 1998 – 2004, Master degree
(Engineering)

Poznan University of Life Sciences, Poland, 2004 – 2010, Doctor (Engineering)

Research degrees

Poznan University of Life Sciences, Poland, Dr.sc.ing. (Food science)

Employment

2011 – now – Latvia State Institute of Fruit-Growing

2002 – 2010 – farm “T.W.BUSBY&SON”, UK

2004 – 2010 – Poznan University of Life Sciences, Poland

Scientific research interests

Nanotechnology in the food (cyclodextrins, liposomes);

Antioxidant activity of plant extracts and their components;

Interaction between antioxidant (synergy and antagonism effect) in model systems of liposomes and emulsions;

HPLC analysis of food ingredients.

Projects:

1. State Research Program “Sustainable use of local resources (earth, forest, food and transport) – new products and technologies (NatRes)” (2010-2013).
2. ESF project No.2009/0228/1DP/1.1.1.2.0./09/APIA/VIAA/035 „Scientific capacity building in fruit-growing, forestry and information technology sectors, providing research on environmentally friendly growing strategies, product development and introduction aided by computer technologies” (2009-2012).
3. State Research Program “Mechanisms of synergistic interactions between D- α -tocopherol, phenolic acids and flavonoids in emulsions and liposomes” (2007-2010).
4. State Research Program “The use of physicochemical methods to study the antioxidant activity of native antioxidants (tocopherols and flavonols) in lipid membranes” (2004-2006).

Publications

1. Górnaś P., Neunert G., Baczyński K., Polewski K.: *Beta-cyclodextrin complexes with chlorogenic and caffeic acids from coffee brew: Spectroscopic, thermodynamic and molecular modelling study*. Food Chemistry 114, 190-196, (2009)

2. Dwiecki K., Górnaś P., Jackowiak H., Nogala-Kałużka M., Polewski K.: *The effect of D-alpha-tocopherol on the solubilization of dipalmitoylphosphatidylcholine membrane by anionic detergent sodium dodecyl sulfate*. Journal of Food Lipids 14, 50-61, (2007)
3. Dwiecki K., Górnaś P., Wilk A., Nogala-Kałużka M., Polewski K.: *Spectroscopic studies of D-alpha-tocopherol concentration - induced transformation in egg phosphatidylcholine vesicles*. Cellular and Molecular Biology Letters 12, 51-69, (2007)
4. Górnaś P., Dwiecki K., Nogala-Kałużka M., Polewski K.: *Propyl gallate-beta-cyclodextrin complexes. spectroscopic and thermodynamic studies*. Acta Agrophysica 7, 1, 73-80, (2006)
5. Dwiecki K., Górnaś P., Nogala-Kałużka M., Polewski K.: *Spectral properties of propyl gallate in organic solvents and in heterogeneous environment*. Acta Agrophysica 7, 1, 39-48, (2006)
6. Górnaś P., Siger A., Dwiecki K., Nogala-Kałużka M., Polewski K.: *Determination of tocopherols content in sunflower oil during oxidation using fluorescence technique*. Acta Scientiarum Polonorum, Technologia Alimentaria, 5, 2, 157-164, (2006)
7. Dwiecki K., Górnaś P., Nogala-Kałużka M., Witkowski S., Polewski K.: *The impact of optical isomers of alpha-tocopherol on the permeability of lipid membrane*. Food. Science. Technology. Quality, 43 (2), Supplement, 30-40, (2005)
8. Górnaś P., Siger A., Nogala-Kałużka M., Polewski K.: *The comparison of oxidations changes and their effectiveness in quenching in the free radicals of time storage of vegetable oils cold pressed efficiencies and their refined equivalents*. Food. Science. Technology. Quality, 43 (2), Supplement., 41-51, (2005)
9. Dwiecki K., Siger A., Górnaś P., Nogala-Kałużka M., Polewski K.: *Interactions between the lipid membrane and d-alpha-tocopherol depending on its concentration*. Food. Science. Technology. Quality, 40 (3) Supplement (2004)

Scientific activity

- Co-organizer of Virtual International Studies between the University of Gambia, Kashmir, USA, Poland, 2004.
- Co-organizer of conferences for young scientists, Puszczykowo, Poland, 2005.