XXXIII
International Apicultural Congress
29 September — 04 October 2013
Kyiv, Ukraine

Discover the European Honeyland

Apimondia
Kyiv, Ukraine 2013

Scientific Program

BEYOND THE HIVE: BEEKEEPING & GLOBAL CHALLENGES

Oral presentation abstracts & poster list
Korea

Bee Venom Components Have The Inhibitory Effects Of Pai-1 Expression By Blocking Erk And Jnk Signaling Pathways
Young-Chae Chang (yechang@cu.ac.kr), Hyun-Ji Cho, Jeong-Yun Jeong, Su-Hyun Park

AP17

Slovenia

Beekeeping As A Therapy For Individuals With Mental Disabilities
Andrej Sever (andrej.sever1@sio.net)

AP18

Ukraine

Beekeeping As A Therapy For Individuals With Mental Disabilities
Andrej Sever (andrej.sever1@sio.net)

AP19

Turkey

Beekeeping As A Therapy For Individuals With Mental Disabilities
Andrej Sever (andrej.sever1@sio.net)

AP20

Portugal

Chemical And Biological Characterization Of Portuguese Propolis Using Thin-Layer Chromatography
Maria Leticia Miranda Estevinho (suporte@ipb.pt), Vanessa Branco Paula, Luis Guimarães Dias

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Turkey

Chemical Composition And Preservative Effect Of Turkish Propolis On Egg Quality During Storage
Nuray Sahinler (nuraysahinler@yahoo.com), Aziz Gul, Gulsen Copur, Ethem Akyol

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Brazil

Chemical Composition Of The Same Brazilian Propolis Sample Analysed In 1997 And In 2012
Jose Mauricio Sforcin (sforcin@ibb.unesp.br), Bruno José Conti, Vassya Bankova

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Hungary

Chemical Composition, Antioxidant Activity And Antimicrobial Properties Of Propolis Extracts From Hungary
Szabolcs Molnár (molnarszabolcs.hu@gmail.com), Attila Kiss, Sándor Rapi, Kata Kalóczkai, Diána Virág

AP24

Turkey

Comparison Of Chemical Constituents And The Anticholinesterase Activity Of The Pine Honeys And Other Honeys From Anatolia: Enrichment Of Cholinesterase Inhibitory Agents From Pine Honeys
Mehmet Öztürk (omehmet@mu.edu.tr), Gülsen Tel, Mehmet Emin Duru

AP25

Poland

Comparison Of The Antioxidant Activity And The Content Of Phenolic Compounds In Light And Dark Honeys
Katarzyna Jaskiewicz (katarzyna.jaskiewicz@inhort.pl)

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Russia

Cooperation In Research, The Behavior Of Bees And Their Medicinal Qualities, Is The Integration And The Possibility Of Communication Among Researchers In Any Academic Circles. Useful And Persektivnoe
Svetlana Kozhev (s_kozhev2002@mail.ru), Kozhev Sergey

AP27

Turkey

Correlation Between Antioxidant Activity And Chemical Content Of Propolis
Nesrin Ecem Bayram (ecem.nesrin@gmail.com), Ömür Gençay Çelemlı, Kadriye Sorkun, Gül Cevahir Öz

AP28

Indonesia

East Java Propolis Inhibits Cytokine Pro-Inflammatory In Odontoblast Like Cells Human Pulp
Ira Widijasastuti (irawidiji@yahoo.com), James Hutagalung, Indri Savitri, Tamara Yuanita, Mandojo Rukmo

AP29

Brazil

Effects Of Apitoxin On Central Nervous System Of Mice
Katia Gramacho (katia_gramacho@itp.org.br), Camila Nunes, Tâmara Nunes, Tássia Nunes, Ailma Oliveira da Paixão, Juliana Cardoso, Margarete Gomes

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Turkey

Effects Of Honeybee Products On Antioxidant Parameters Of Young Gymnasts
Sibel Silici (altiparmak@altiparmak.com.tr)

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XXXIII International Apicultural Congress, 29 September — 04 October 2013, Kyiv
Introduction and Objectives

Propolis is a resinous substance obtained by honey bees Apis mellifera, a product considered "natural antibiotic" which plays an important role in defending the hive, protecting it from microorganisms, fungi, bacteria and viruses. This product has a large variety of compounds in its composition, giving greater emphasis to the phenolic compounds, which are attributed strong antioxidant and antimicrobial activities. The main objective of this work is to optimize the technique of thin layer chromatography (TLC) to analyze qualitatively, using the two-dimensional technique, the phenolic compounds of propolis.

Material and Methods

The original sample of propolis, collected from several hives of an apiary installed in the Sierra de Bornes was solid. For the extraction of phenolic compounds, it was used a mixture of methanol (HPLC grade) and sample of propolis, at 1:1 ratio. The mixture was allowed to stir overnight and, subsequently, it was filtered. The methanol extract was placed in a refrigerator at +5 °C and, after 12 hours, it was performed new filtration to remove the wax. The obtained methanol extract was evaporated till dryness using a rotary evaporator. To the extract solid was added 100 ml of diethyl ether and 100 ml of water, in order to obtain two phases. The supernatant was removed and again taken to dryness, obtaining a dry purified extract of propolis. This extract was redissolved in ethanol and applied to TLC plates which were previously cleaned and activated in an oven at 120 °C for 30 minutes.

Results and Discussion

To visualize the phenolic compounds in the TLC plate, the following reagents were used: aluminum chloride, iron chloride, Folin Ciocalteu method, DPPH and vanillin.

Conclusions

The aluminum chloride reagent allowed to visualize the highest number of spots on the plate TLC (phenolic compounds) and better defined. The reagents Folin-Ciocalteu and DPPH besides allowing to visualize the phenolic compounds in the TLC plate also lets to check if the spots have compounds with antioxidant activity.