Elena Poverenov **June, 2014**

Part I: CURRICULUM VITAE

1. Personal

Department of Food Quality and Safety
e-mail: elenap@volcani.agri.gov.il
Phone: 972-50-6220070
web-site: http://www.agri.gov.il/en/people/1024.aspx

2. University Education and Additional Training

Dates	Description
1998 - 2001	B.Sc. in Medicinal Chemistry at Bar Ilan University (summa cum laude)
2001 - 2004	M.Sc. in Organic Chemistry at Weizmann Institute of Science Title of thesis: Synthesis and Reactivity of Complexes Based on PCN-type Ligands Supervision by: Prof. David Milstein
2004 - 2009	Ph.D. in Organic Chemistry at Weizmann Institute of Science Title of thesis: Reactive Species Stabilized by Complexation to Pt- group Metals. Supervision by: Prof. David Milstein
2009- 2011	Postdoctoral position at Weizmann Institute of Science with Prof. Michael Bendikov Research subject: Conductive Polymers

3. Positions Held and Academic Status

Dates	Description
2011 - to date	Research Scientist at the ARO, The Volcani Center, Institute of Postharvest and Food Sciences

4. Training / Teaching Experience

A. Guidance of M.Sc. Students:

Starting date	Graduation date	Name	Title of thesis	Guidance with
2011	2014	Mrs. Hadar Arnon	Development of polysaccharide-based edible coatings and examination of their effects on quality and postharvest storage performance of citrus fruit (**cum laude, 92**)	Dr. Ron Porat
2011	2014	Mrs.Yana Zaitcev	Development of edible coatings based on the antimicrobial polysaccharide chitosan to maintain the quality of fresh produce postharvest (**cum laude, 93**).	Prof. Elazar Fallik

			Excellence Fellowship for research in food technology	
2012	to date	Mrs. Adi Selilat	Development of encapsulation systems for controlled release of active volatiles to protect and extend storage period of wheat	Prof. Ada Rafaeli

B. Guidance of Ph.D. Students:

Starting date	Graduation date	Name	Title of thesis	Guidance with
2013	to date	Mr. Roi Rutenberg	Natural biopolymers for active biodegradable packages and coatings.	Prof. Elazar Fallik
2014	to date	Mrs. Hadar Arnon	Active edible coatings to improve quality and safety of fruits and vegetables	Dr. Ron Porat

D. Post-Docs Scientists:

Dates	Name	Research subject
2012 -to date	Dr. Tania Fadida	Development of contact active antimicrobial packages and surfaces
2013	Dr. Eugene Khaskin	Development of contact active antimicrobial metal surfaces
2013	Dr. Yulia Krupitski	Antimicrobial activity of contact active antimicrobial packages and surfaces with Prof. Shlomo Sela

5. Activity in Scientific and Agricultural Committees

A. International:

Dates	Description and role
2012 -to date	A European Network For Mitigating Bacterial Colonization and Persistence on Foods and Food Processing Environments COST; Member
2014 -to date	A European Network For Nano- and bio-colloidal materials COST; Member
2014 -to date	The European Colloid and Interface Society; Member

B. National

Dates	Description and role
2001-2011	Israel Chemical Society
2012 -to date	Israel Society of Crop and Vegetable Sciences

6. Research Grants

A. International Competitive Grants:

Year	Granting Source	Duration (years)	Role*	Title (short)
2011	EU	3	CI	Comprehensive approach to enhance quality and safety of ready-to-eat fresh products

2013	BARD	3	CI	Antimicrobial nanoparticles for food
2014	BARD	3	PI	Waste to Worth: Active antimicrobial and health-beneficial food coating from byproducts of mushroom industry

B. National Competitive Grants:

Year	Granting Source	Duration (years)	Role*	Title (short)
2011	Chief Sci.	2	CI	Development of antimicrobial edible coating to extend shelf life of fresh fish
2012	Chief Sci.	3	PI	Covalent linkage of QAS to antimicrobial food packaging
2012	Chief Sci.	3	PI	New approaches to promote applications of edible coatings
2013	Chief Sci.	3	PI	Systems for Controlled Release of Antifungal Agents
2014	Chief Sci.	3	CI	Ecosafety alternatives for insect pest control
2014	ARO Found	3	PI	Antimicrobial Packaging by Nanotechnology

*PI = Principal Investigator; CI = Cooperating Investigator

Part II: LIST OF PUBLICATIONS

Marks:
S Student or post-doc under my supervision

1. Articles in Reviewed Journals

1. **Poverenov**, **E**., Gandelman, M. W., Shimon, L. J., Rozenberg, H., Ben-David, Y. and Milstein, D. (2004).
   Nucleophilic de-coordination and electrophilic regeneration of hemilabile pincer-type complexes: Formation of anionic dialkyl, diaryl, and dihydride Pt(II)complexes bearing no stabilizing π-acceptors
   Chem. A Eur. J. 10: 4673. IF 5.8; Category: Chemistry Multidisciplinary; Rank 18/152. **Highlighted on cover page**.

2. **Poverenov**, **E**. Leitus, G., Shimon, L. J. W. and Milstein, D. (2005).
   C-Metalated diazoalkane complexes of platinum based on PCP-and PCN- ligands.
   Organometallics 24: 5937. IF 4.2; Category: Chemistry Inorganic; Rank 6/44.

3. Gandelman, M., Naing, K. M., Rybtchinski, B.**, Poverenov**, **E**., Ben-David, Y. and Milstein, D. (2005).
   A general method for preparation of metal carbenes via solution- and polymer-based approaches.
   J. Am. Chem. Soc.: 127, 15265-15272. IF 10.7; Category: Chemistry Multidisciplinary; Rank 11/152.

4. **Poverenov**, **E**. Gandelman, M., Shimon, L.J.W. Rozenberg, H., Ben- David, Y. and Milstein, D. (2005).
   Pincer "Hemilabile" effect. PCNPt(II) complexes with different amine "Arm Length". *Organometallics* 24: 1082-1090. Category: Chemistry Inorganic; IF 4.2; Rank 6/44.

5. **Poverenov**, **E**., Leitus, G. and Milstein, D. (2006).
   Synthesis and reactivity of the methylene arenium form of a benzyl cation, stabilized by complexation.
   J. Am. Chem. Soc. 128: 16450. IF 10.7; Category: Chemistry Multidisciplinary; Rank 11/152.

6. Schwartsburd, L., **Poverenov**, **E**. Shimon, L. J. W. and Milstein, D. (2007).
   Naphthyl-based PCP platinum complexes. Synthesis of a Pt(II) formyl complex.
   Organometallics 26: 2931-2936. Category: Chemistry Inorganic; IF 4.2; Rank 6/44.

7. Vuzman, D.**, Poverenov**, **E**., Leitus, G., Shimon, L. J. W. and Milstein, D. (2007).
   Reactivity and stability of platinum (II) formyl complexes based on PCP-Type ligands.
   Dalton Trans. 48: 5692-5700. IF 3.8; Category: Chemistry Inorganic; Rank 7/44.

8. **Poverenov**, **E**., Shimon, L. J. W. and Milstein, D. (2007).
   Quinone methide generation based on a cis-(N,N) platinum complex.
   Organometallics 26: 2178. IF 4.2; Chemistry Inorganic; Rank 6/44.

9. **Poverenov**, **E**. and Milstein, D. (2007).
   Formation of transition metal carbenes using haloalkylzinc reagents.
   Chem. Comm. 30: 3189-3191. IF 6.4; Category: Chemistry Multidisciplinary; Rank 17/152.

10. Vuzman, D., **Poverenov**, **E**., Shimon, L. J. W., Diskin-Posner, Y. and Milstein, D. (2008).
    Platinum(II) complexes based on an electron-rich PNN ligand.

Organometallics 27: 2627–2634. IF 4.2; Category: Chemistry Inorganic; Rank 6/44.

11. **Poverenov**, **E**., Efremenko, I., Frenkel, A.I., Ben-David, Y., Shimon, L. J. W., Leitus, G., Konstantinovsky, L., Martin, J. M. L. and Milstein, D. (2008).
Evidence for a terminal Pt (iv)-oxo complex exhibiting diverse reactivity.
Nature: 455, 1093-1096. Category: Multidisciplinary; IF 36.1; Rank 1/59.

12. **Poverenov**, **E.,** Iron, M., Gandelman, M., Ben-David, Y. and Milstein, D. (2010).
Anionic d^8 alkyl hydrides. Selective formation and reactivity of Pt(II) methyl hydride.
Eur. J. Inorg. Chem. 13: 1991-1999. IF 3.1; Category: Chemistry Inorganic; Rank 11/44.

13. **Poverenov**, **E**., Li, M., Bitler, A. and Bendikov, M. (2010).
The effect of electropolymerization conditions on properties of PEDOT films.
Chem. Mater. 22, 4019. IF 8.2; Category: Material Science*;* Rank 16/225.

14. **Poverenov**, **E**. and Milstein, D. (2012)**.**
Non-innocent behavior of PCP and PCN pincer ligands of late metal complexes in organometallic pincer chemistry.
Top. Organomet. Chem. 40: 21, Category: Chemistry Organic; IF 6.3; Rank 5/57.

15. **Poverenov, E**., Sheynin, Y., Zamochshik, N., Patra, A., Perepichka, I. F., Leitus, G. and Bendikov, M. (2012).
Flat conjugated polymers combining a relatively low HOMO energy level and band gap: Polyselenophenes versus polythiophenes.
J. Mater, Chem. 22: 14645. IF 6.1; Category: Material Science; Rank 12/225.

16. **Poverenov**, **E**., Efremenko, I., Leitus , G., Martin, J. M. L. and Milstein**,** D. (2013). Benzyl cation stabilized by metal complexation. Relative stability of coordinated methylene arenium, π-benzylic and σ-benzylic structures.
Organometallics 32: 4813. IF 4.2; Category: Chemistry Inorganic; Rank 6/44.

17. **Poverenov**, **E**., Danino [S], S., Horev, B., Granit, R., Vinokur, Y. and Rodov, V. (2014).
Layer-by-Layer electrostatic deposition of edible coating on fresh cut melon model: anticipated and unexpected effects of alginate-chitosan combination.
Food Bioprocess Techn. 7:1424-1432. IF 4.1; Category: Food Sci. Techn.; Rank 4/128.

18. **Poverenov**, **E**., Shemesh, M., Gulino, A., Zakin, V., Yefremov, T. and Granit, R. (2013).
Durable contact active antimicrobial materials formed by a one-step covalent modification of polyvinyl alcohol, cellulose and glass surfaces.
Colloids and Surfaces B. 112: 356-361. IF 3.6; Category: Material Science Biomaterials; Rank 7/27.

19. **Poverenov**, **E**., Granit, R. and Gabai [S], S. (2013).
Encapsulation and controlled release of propionic acid utilizing biodegradable active films based on natural polymers.
Eur. Food Res. Technol. 237: 19. IF 1.5; Category: Food Sci. Techn.; Rank 47/128.

20. Arnon [S], H., Porat, R., Zaitsev , Y. and **Poverenov**, **E**. (2014). Effects of carboxymethyl cellulose and chitosan bilayer edible coating on postharvest quality of citrus fruit.
Postharvest Biol. Technol. 87, 21-26. IF 2.5; Category: Food Sci. Techn.; Rank 24/128.

21. **Poverenov**, **E**., Zamochshik, N., Patra, A., Ridelman, I. and Bendikov, M. (2014).
Unusual doping of donor-acceptor-type conjugated polymers using lewis acids.
J. Am. Chem. Soc. 136, 5138-5149. IF 10.7; Category: Chemistry Multidisciplinary; Rank 11/152.

22. **Poverenov**, **E**., Zaitsev [S], Y., Arnon [S], H., Granit, R., Alkalai-Tuvia, S, Perzelan, Y., Weinberg, T., and Fallik, E. (2014).
Effects of a composite chitosan-gelatin edible coating on postharvest quality and storability of red bell peppers.
*Postharvest Biol. Technol.*96, 106-109, IF 2.5; Category: Food Sci. Techn.; Rank 24/128.

23. **Poverenov**, **E**., Rutenberg [S], Danino [S], S., Horev, B. and Rodov, V. (2014).
Gelatin-chitosan composite films and edible coatings to enhance the quality of food products: Layer by Layer vs. blended formulations.
Food Bioprocess Techn. DOI 10.1007/s11947-014-1333-7 IF 4.1; Category: Food Sci. Techn.; Rank 4/128.

24. Arnon [S], H., Granit, R., Porat, R., and **Poverenov**, **E**. (2014).
Development of polysaccharides-based edible coatings for citrus fruits: a Layer-by-Layer approach.
Food Chem., Accepted. IF 3.4; Category: Food Sci. Techn.; Rank 10/128.

25. Fadida [S], T., Kroupitski [S], Y., Peiper, U. M. Bendikov, T. Sela, S. **Poverenov. E**. (2014)
Air-Ozonolysis to Generate Contact Active Antimicrobial Surfaces: Activation of Polyethylene and Polystyrene Followed by Covalent Graft of Quaternary Ammonium Salts.
Colloids and Surfaces B. Accepted. IF 3.6; Category: Material Science Biomaterials; Rank 7/27.

2. Book Chapters

Poverenov, **E**. and Milstein, D. (2009).
Quinone methide stabilization by metal complexation.
In Reactive Intermediates Chemistry and Biology. **Invited Chapter**.
Publisher John Wiley & Sons, New Jersey, USA.

3. Articles in Non-Reviewed Journals in Hebrew and English

Poverenov, E. (2014).
Layer-by-Layer edible coatings to improve quality of fresh agricultural products.
Israel Agriculture, 8. **Invited paper.**
Publisher Nobel Green Ltd, Tel Aviv, Israel

4. Articles in Symposia Proceedings (including Acta Horticulturae)

Poverenov, E., Cohen, R., Yefremov, T. , Vinokur, Y. and Rodov, V. (2014).
Effects of polysaccharide-based edible coatings on fresh-cut melon quality
International CIPA Conference 2012 on Plasticulture for a Green Planet, ISHS Acta Horticulturae 1015: pp.145. **Reviewed**