**Elena Poverenov January, 2024**

**Part I: CURRICULUM VITAE**

1. **Personal**

Department of [Food Quality and Safety](http://www.agri.gov.il/en/departments/8.aspx)

e-mail: [elenap@volcani.agri.gov.il](mailto:elenap@volcani.agri.gov.il)

Phone: 972-50-6220070

Personal web–page: <https://www.agri.gov.il/en/people/1024.aspx>

Personal web–site: <https://mirik28.wixsite.com/elenapoverenov>

Google Scholar web–site: <https://scholar.google.com/citations?user=TphNh8IAAAAJ&hl=en>

1. **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 |

1. **Positions Held and Academic Status**

|  |  |
| --- | --- |
| **Dates** | **Description** |
| 2011 - 2014 | Research Scientist Rank C (equivalent to " Lecturer") at ARO, Volcani Institute, Department of Food Sciences |
| 2014 - 2018 | Promoted to Rank B (equivalent to "Senior Lecturer") at ARO, Volcani Institute, Department of Food Sciences |
| 2018 - 2023 | Promoted to Rank A (equivalent to "Associate Professor") at ARO, Volcani Center, Institute of Postharvest and Food Sciences |
| 2022 - to date | Promoted to Rank A+ (equivalent to "Full Professor") at ARO, Volcani Institute, Department of Food Sciences |
| 2018 - to date | Head of the Multidisciplinary Research Center for Agro-Nanotechnology and Advanced Materials, ARO |

1. **Guiding Students**
2. Guidance of M.Sc. Students

|  |  |  |  |
| --- | --- | --- | --- |
| **Graduation date** | **Name** | **Title of thesis** | **Guidance with** |
| 2014 | \* Hadar Arnon  (HUJI) | Polysaccharide-based edible coatings and their effects on quality and storability of citrus fruit **cum laude**, **excellence fellowship** | Dr. Ron Porat |
| 2014 | \*Mrs.Yana Zaitcev  (HUJI) | Yielding, characterization and applications of mushroom-sourced chitosan  **cum laude**, **excellent research fellowship** | Prof. Elazar Fallik |
| 2016 | \* Aviva Buslovich  (BIU) | Development of antimicrobial packages utilizing volatile nanoparticles  **cum laude** | Prof. Aharon Gedanken |
| 2017 | \* Gilad Goldin  (HUJI) | Development of delivery systems for controlled release of antimicrobial materials  **cum laude** | Prof. Eli Ishai |
| 2018 | \* Elad Matot  (BIU) | Development of active nanoparticles based on natural polymers  **cum laude** | Prof. Ehud Banin |
| 2018 | \* Esti Butbul  (BIU) | Biopolymers based active gels and controlled release systems | Prof. Shlomo Margel |
| 2018 | Shani Kehila  (HUJI) | Storability prolongation and quality enhancement bell peppers | Prof. Elazar Fallik |
| 2019 | \* Leilah Saidi  (HUJI) | Bioactive coatings for grape and strawberry (**cum laude, 94**) **Excellence Fellowship** **for research in food nanotechnology** | Dr. Amnon Lichter |
| 2022 | \* Adi  Samo  (HUJI) | Natural coatings for preharvest treatment of vegetative reproduction materials  **cum laude** |  |
| 04.01.2023 | \*Noa Shkuri  (HUJI) | Green methods to prolong storability and enhance quality of fresh-cut produce |  |
| Expected 2024 | \* Ilan Chertok  (HUJI) | Nanoemulsions for advanced food and agricultural implementations |  |
| Expected 2024 | \* Tamar Moyal  (HUJI) | Biopolymer-based delivery systems for food and nutraceutics |  |
| Expected 2025 | \* Raheli ben Ivgi  (HUJI) | Edible coatings for seeds |  |
| Expected 2025 | \* Inbal Domb  (HUJI) | Biodegradable active films from waste of alternative protein industry |  |

\*under my direct supervision

1. Guidance of Ph.D. Students:

|  |  |  |  |
| --- | --- | --- | --- |
| **Graduation date** | **Name** | **Title of thesis** | **Guidance with** |
| 2018 | \* Roi Rutenberg  (HUJI) | Development of new delivery systems based on rationally modified polysaccharides.  **6 fellowships for excellent research** | Prof. Elazar Fallik |
| 2019 | \* Hadar Arnon-Rips  (HUJI) | Nanotechnological approaches to develop advanced active edible coatings and films to maintain quality of fresh produce | Dr. Ron Porat |
| 2021 | \* Yael Cohen  (HUJI) | Biopolymer-based nanocapsules for effective delivery of plant nutrients  **excellence fellowship** | Prof. Elazar Fallik |
| 2022 | \* Yevgenia Shabis  (HUJI) | Formation and characterization of oligosaccharides-based elicitors | Prof. Elazar Fallik |
| 2023 | \* Rafael Izhakov  (HUJI) | Development of safe, natural material-based cross-linkers for a formation of biocompatible hydrogels | Prof. Elazar Fallik |
| 2024 | \* Aviad  Sela  (HUJI) | Nanocomposite materials for effective encapsulation and delivery of highly sensitive bioactive agents | Dr. Victor Rodov |
| Expected  2027 | \* Doron Yariv  (HUJI) | New biodegradable polymers based on chitin derivatives |  |
| Expected  2027 | \* Adi Ticher  (HUJI) | Saccharides-based material for food and agriculture |  |
| Expected  2028 | \* Orit Palti | New extraction systems based on modified biopolymers |  |

\*under my direct supervision

1. Post-Docs and Visiting Scientists:

|  |  |  |
| --- | --- | --- |
| **Dates** | **Name** | **Research subject** |
| 2012 - 2015 | Dr. Tania FadidaPD | Development of contact active antimicrobial packages |
| 2013- 2015 | Dr. Eugene KhaskinPD | Development of contact active antimicrobial metal surfaces |
| 2013-2014 | Dr. Yulia KrupitskiPD | Antimicrobial packages and surfaces with Prof. Shlomo Sela |
| 2014 - 2016 | Dr. Zhaojun BanPD | Active edible coatings from wastage of mushroom industry |
| 2016- 2017 | Dr. Pankaj K. RastorgiPD | Electrochemical approaches for delivery systems |
| 2016- 2020 | Dr. Miri KleinPD | Dynamic covalent linkage for smart package materials **Excellent research fellowship** |
| 2017- 2019 | Dr. Anat Philosof- MoladPD | Nano-agrochemicals based on natural polymers |
| 2017- 2020 | Dr. Stella KhilPD | Contact active non-woven materials |
| 2018- 2021 | Dr. Ilia ShlarPD | Nano-clays for effective delivery of antifungal dsRNA |
| 2020- 2021 | Dr. Alexander Laskavy PD | Polysaccharide-supported catalysts and filtration systems |
| 2021- 2022 | Dr. Erez CohenPD | Amino-acids modified polysaccharides |
| 2019- 2023 | Dr. Ainur ImangalaevPD | Carboxymethylchitosan-based new materials |
| 2020- 2023 | Dr. Sai SagiriPD | Covalent organic frames for agriculture and food |
| 2023- to date | Dr. Yana GurianovPD | Black Fly Soldier as a source of chitin-based materials |
| 2024- to date | Dr. Elena Serebryannikova | Improved organoleptic of alternative protein-based food |

XPD: Post-Doc working in my research team

1. **Research Grants**
2. International Peer Reviewed Grants:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year** | **Granting Source** | **Duration (years)** | **Role\*** | **Title (short)** |
|
| 2011 | EU | 3 | CI | Comprehensive approach to enhance safety of ready-to-eat fresh products |
| 2013 | BARD | 3 | CI | Antimicrobial nanoparticles for food |
| 2014 | BARD | 3 | PI | Waste to Worth: Active edible coatings from byproducts of mushroom industry |
| 2016 | KMM, Ministry of Health | 2 | PI | Natural agents-based bioactive films for food products |
| 2017 | Ministry of Science and Technology | 3 | PI | Anti-adhesive materials as safe approach to prevent food contamination without biocides |
| 2018 | Ministry of science and Technology | 3 | CI | Nano- Acoustic-Visual mobile Robotic manipulator for application of Nanostructures in agriculture |
| 2018 | BARD | 3 | PI | Green nature inspired nanosanitizers for ready-to-eat fresh fruit and vegetables |
| 2020 | Nizan-China | 3 | PI | Development and applications of fresh-cut edible coatings |
| 2022 | Good Food Institute (GFI)  Alternative protein | 2 | PI | **New tailored biomaterials to enhance organoleptic and nutritional properties of food products based on plant proteins** |
| 2023 | NIFA-BARD-IIA | 2 | PI | **Developing Novel Packaging from agricultural waste** |
| 2024 | PRIMA | 3 | CI | Innovative active packaging structures to improve food safety of Mediterranean foods |

1. National Peer Reviewed Grants:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year** | **Granting**  **Source** | **Duration (years)** | **Role\*** | | **Title (short)** |
|
| 2011 | Chief Scientist Ministry of Agriculture | 2 | CI | antimicrobial edible coating to extend shelf life of fish | |
| 2012 | Chief Scientist Ministry of Agriculture | 3 | PI | Covalent linkage of QAS to antimicrobial food packaging | |
| 2012 | Chief Scientist of Ministry of Agriculture | 3 | PI | New approaches to promote applications of edible coatings | |
| 2013 | Chief Scientist of Ministry of Agriculture | 3 | PI | Systems for Controlled Release of Antifungal Agents | |
| 2014 | Chief Scientist of Ministry of Agriculture | 3 | CI | Ecosafety alternatives for insect pest control | |
| 2015 | "Kandel" | 3 | CI | Biological pesticides | |
| 2016 | Ministry of Agriculture, R&D programs | 3 | CI | Edible coatings for *Capsicum Annum L* pepper fruit | |
| 2016 | Nizan, Chief Scientist of Ministry of Agriculture | 3 | CI | Bioactive Coating for Postharvest Preservation of Fresh Produce | |
| 2017 | Magnet Industrial Consortium | 3 | PI | smart non-woven materials  SNOW | |
| 2017 | Nizan Nano,  Chief Scientist of Ministry of Agriculture | 3 | PI | Development of nanocapsules for effective directed delivery of plant nutrients | |
| 2017 | Nizan Nano, Chief Scientist of Ministry of Agriculture | 3 | PI | Agronanochemicals from agroindustrial wastes | |
| 2018 | Chief Scientist of Ministry of Agriculture,  Nanotechnology | 3 | PI | Facilitation delivery of novel bioactives for fruit and vegetables | |
| 2018 | Nizan Food, Ministry of Agriculture | 3 | PI | Enriching cruciferous crops with health-promoting compounds | |
| 2019 | Nizan, Scientist of Ministry of Agriculture | 3 | CI | Encapsulation and controlled release of phenylalanine for treatment of flowers | |
| 2019 | Nizan, Chief Scientist of Ministry of Agriculture | 3 | CI | Biopesticides, new delivery systems and mechanism of action | |
| 2020 | Magnet Industrial Consortium | 3 | PI | Polysaccharide-based active coatings for plant materials  “SMART” | |
| 2021 | Chief Scientist of Ministry of Agriculture | 3 | PI | Improvement of fish feeding using biocompatible encapsulation material | |
| 2022 | ARO grant for applicative research | 2 | PI | Enhancing applicability of edible coatings of Israeli fruit | |
| 2022 | Nofar, Ministry of Innovation | 2 | CI | Green coating of seeds using active compounds from waste of seed | |
| 2023 | Magnet Consortium | 3 | PI | Black Fly Soldier as alternative protein source | |
| 2023 | Magnet Consortium | 3 | PI | Nature sourced crosslinkers and polysaccharide to new biomaterials | |
| 2024 | Ministry of Innovation | 1 | CI | dsRNA against pathogenic fungi in agricultural produce | |

1. National Non-Peer Reviewed Grants:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year** | **Granting Source** | **Duration (years)** | **Role\*** | **Title (short)** |
| 2018 | ICA | 3 | PI | Improve quality and storability of fresh and fresh-cut produce |
| 2022 | ICA | 1 | PI | Improve transportation storability of avocado |

1. Other Funds:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year** | **Granting Source** | **Duration (years)** | **Role\*** | **Title (short)** |
|
| 2016 | KFCN (CIL) | 1 | PI | Polysaccharides-based materials  for controlled release of fertilizers |

\*PI = Principal Investigator; LPI =Local Principal Investigator; CI = Cooperating Investigator

1. **Awards**

|  |  |
| --- | --- |
| **Dates** | **Description** |
| 2000 | Chemistry department Prize of Excellence, Bar-Ilan University |
| 2001 | Dean’s List of Excellence, Bar-Ilan University |
| 2002 | The Hias Fellowship for Outstanding students |
| 2007 | The Dean’s Excellence List, The Weizmann Institute of Science |
| 2007 | The OttoSchwarz Foundation Excellence Award |
| 2008 | John F. Kennedy Excellence Award |
| 2009 | Dean's Postdos Award for excellence, The Weizmann Institute of Science |
| 2010 | The Clore Fellowship, The Weizmann Institute of Science |
| 2015 | The New Researcher Prize, Agricultural Research Organization |
| 2017 | Promising Scientist Awardee for Research in Food and Agriculture, Agropolis and Olam Prizes |
| 2019 | Excellent young Scientist in Agriculture Award, AgroMashov, Israel |
| 2020 | Yigal Alon Prize for Contributions to the Community in the Field of Agriculture, Israel |
| 2022 | Excellent Researcher Prize, Agricultural Research Organization |

**Elena Poverenov January, 2024**

##### Part II: LIST OF PUBLICATIONS

Marks:

XS          Student under my supervision

XPD Post-Doc under my supervision

**X \*\*** Corresponding Author *(in cases where the researcher is the Corresponding Author)*

**1. Articles in Reviewed Journals**

1. **Poverenov, E**., Gandelman, M., Shimon, LJW, Rozenberg, H., Ben-David, Y., Milstein, D. (2004). Nucleophilic de-coordination and electrophilic regeneration of hemilabile pincer-type complexes: Formation of anionic dialkyl, diaryl, dihydride Pt(II) complexes bearing no stabilizing -acceptors.

*Chem. A Eur. J.* 10, 4673-4684.

IF 5.0; Category: Chemistry Multidisciplinary; Rank 18/152, Q1.

1. **Poverenov, E**., Gandelman, M., Shimon, LJW, Rozenberg, H., Ben-David, Y., Milstein, D. (2005).

[Pincer "hemilabile" effect. PCN platinum(II) complexes with different amine "arm length"](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=3&SID=D5maa7pgZHFbGSgYJwp&page=1&doc=2).

*Organometallics*, 24, 1082-1090.

IF 3.9; Category: Chemistry Inorganic; Rank 6/44, Q1

1. **Poverenov, E**., Leitus, G., Shimon, LJW, Milstein, D. (2005).

C-Metalated diazoalkane complexes of platinum based on PCP-and PCN-type ligands.

*Organometallics*24, 5937-5944.

IF 3.9; Category: Chemistry Inorganic; Rank 6/44, Q1.

1. Gandelman, M., Naing, K., Rybtchinski, B.**, Poverenov**, **E**., Ben-David, Y., Ashkenazi, N., Gauvin, RM., 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 16.4**; Category: Chemistry Multidisciplinary; Rank 16/179, Q1.

1. **Poverenov**, **E**.,Leitus, G., Milstein, D. (2006).

Synthesis and reactivity of the methylene arenium form of a benzyl cation, stabilized by complexation.

*J. Am. Chem. Soc*. 128, 16450-16451.

**IF 16.4**; Category: Chemistry Multidisciplinary; Rank 16/179, Q1.

1. **Poverenov**, **E**., Milstein, D. (2007).

Formation of transition metal carbenes using haloalkylzinc reagents.

*Chem. Comm.* 30, 3189-3191.

IF 6.2; Category: Chemistry Multidisciplinary; Rank 17/152, Q1.

1. **Poverenov**, **E**., Shimon, LJW, Milstein, D. (2007).

Quinone methide generation based on a cis-(N, N) platinum complex.

*Organometallics* 26, 2178-2182.

IF 3.9; Chemistry Inorganic; Rank 6/44, Q1.

1. Schwartsburd, L., **Poverenov, E**. Shimon, L. J. W., Milstein, D. (2007).

Naphthyl-based PCP platinum complexes. Nucleophilic activation of coordinated CO and synthesis of a

Pt(II) formyl complex.

*Organometallics* 26, 2931-2936.

IF 3.9; Category: Chemistry Inorganic; Rank 6/44, Q1.

1. Vuzman, D., **Poverenov, E.**, Diskin-posner, Y., Leitus, G., Shimon, LJW, Milstein, D. (2007).

Reactivity and stability of platinum (II) formyl complexes based on PCP-type ligands. The significance of sterics. *Dalton**Trans.* 48, 5692-5700.

IF 4.4; Category: Chemistry Inorg; Rank 7/44, Q1.

1. **Poverenov**, **E**., Efremenko, I., Frenkel, A., Ben-David, Y., Shimon, LJW, Leitus, G., Martin, JML, Konstantinovsky, L., Milstein, D. (2008).

Evidence for a terminal Pt (iv)-oxo complex exhibiting diverse reactivity.

*Nature* 455, 1093-1096.

**IF 69.5**; Category: Multidisciplinary; Rank 1/73, Q1

1. Vuzman, D., **Poverenov, E**., Shimon, LJW, Diskin-Posner, Y., Milstein, D (2008).

Cationic, neutral, and anionic platinum(II) complexes based on an electron-rich PNN ligand. New models of reactivity based on pincer hemilability and dearomatization.

Organometallics27, 2627-2634.

IF 3.9; Category: Chemistry Inorganic; Rank 6/44, Q1.

1. **Poverenov**, **E**.**,** Iron, MA, Gandelman, M., Ben-David, Y., Milstein, D. (2010).

Anionic d(8) Alkyl Hydrides - Selective formation and reactivity of cis-Pt(II) methyl hydride.

*Eur. J. Inorg. Chem.* 13, 1991-1999.

IF 2.5; Category: Chemistry Inorganic; Rank 11/44, Q1.

1. **Poverenov**, **E**., Li, M., Bitler, A., Bendikov, M. (2010).

Major effect of electropolymerization solvent on morphology and electrochromic properties of PEDOT

films. *Chem. Mater. 22, 4019-4025.*

**IF 10.5**; Category: Material Science Multidisciplinary; Rank 48/345, Q1.

1. **Poverenov, E**., Sheynin, Y., Zamochshik, N., Patra, A., Leitus, G, Perepichka, IF, Bendikov, M. (2012).

Flat conjugated polymers combining a relatively low HOMO energy level and band gap: Polyselenophenes versus polythiophenes.

*J. Mater, Chem.* 22, 14645-14655.

IF 6.6; Category: Material Science; Rank 22/251, Q1.

1. **Poverenov**, **E**., Efremenko, I., Leitus, G., Martin, JML, Milstein,D. (2013).

Benzyl cation stabilized by metal complexation. Relative stability of coordinated methylene arenium, -benzylic and -benzylic structures.

*Organometallics* 32, 4813-4819.

IF 3.9; Category: Chemistry Inorganic; Rank 6/44, Q1.

1. **Poverenov**, **E.**,Granit R., Gabai S. (2013).

Encapsulation and controlled release of propionic acid utilizing biodegradable active films based on natural polymers.

*Eur. Food Res. Technol.* 237, 19-26.

IF 3.0; Category: Food Sci. Techn.; Rank 62/133, Q2.

1. Poverenov, E.,\*\* Shemesh, M., Gulino, A., Zakin, V., Yefremov, T. ,S Granit, R. S (2013).

Durable contact active antimicrobial materials formed by a one-step covalent modification of polyvinyl alcohol, cellulose and glass surfaces.

*Colloids Surf B.* 112, 356.

IF 6.0; Category: Biophysics;Rank 11/72, Q1.

1. Arnon, H.,S Porat, R., Zaitsev,Y.,  **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 6.8; Category: Agronomy; Rank 4/90, Q1.

1. **Poverenov**, **E**.,**\*\*** Danino,S., S Horev, B., Granit, R., S Vinokur, Y., 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 5.6; Category: Food Science and Technology; Rank 33/143, Q1.

1. **Poverenov**, **E**.,**\*\*** Zamochshik, N., Patra, A., Ridelman, I., Bendikov, M. (2014).

[Unusual doping of donor-​acceptor-​type conjugated polymers using lewis acids](https://scifinder.cas.org/scifinder/references/answers/A6FBEF42X86F35098X18ED727810A340FF68:A711F295X86F35098X56B1BB8451B6239C94/2.html?nav=eNpb85aBtYSBMbGEQcXR3NDQzcjSNMLCzM3Y1MDSIsLUzMnQycnCxNTQyczI2NLZ0gSoNKm4iEEwK7EsUS8nMS9dzzOvJDU9tUjo0YIl3xvbLZgYGD0ZWMsSc0pTK4oYBBDq_Epzk1KL2tZMleWe8qCbiYGhooCBgYEZaGBGCYO0Y2iIh39QvKdfmKtfCJDh5x_vHuQfGuDp517CwJmZW5BfVAI0obiQoY6BGaiPASianVsQlFqIJspUlI_qPqf8_JzUxLyzCkUNV-f8egd0XxTMfQUg9cXFQPXa-UXpesmJxXr5xcmJRXrFqUVlqUV6Kfm5iZl5esn5ubn5eXrBQCcEF6Qm20xYvUB2-oNTTAxMPgw8uZX-RSmZeYk53qmVJQwaPkCD9IEG6YMN0ocYpA8xSB9ikD5QpbUPA3tuJcjE4hIGSR-Qa_VLSzJz9H0y87JTUzwSizOCU0usKwoKgI4TB3sGJK2HIn0j53rU1LtacqCwhHkZrAoqv8uldeq0HdtNmEFhXc4DDB4BewcGMKgAAC6po0A&key=caplus_2014:387413&title=VW51c3VhbCBEb3Bpbmcgb2YgRG9ub3ItQWNjZXB0b3ItVHlwZSBDb25qdWdhdGVkIFBvbHltZXJzIFVzaW5nIExld2lzIEFjaWRz&launchSrc=reflist&pageNum=1&sortKey=ACCESSION_NUMBER&sortOrder=DESCENDING).

In memory of Prof. M. Bendikov

*J. Am. Chem. Soc.*  136, 5138-5149.

**IF 16.4**; Category: Chemistry Multidisciplinary; Rank 16/179, Q1.

1. **Poverenov**, **E**.,**\*\*** Zaitsev,Y., Arnon, H.,Granit, R.,Perzelan, Y., 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 6.8; Category: Agronomy; Rank 4/90, Q1.

1. **Poverenov**, **E**.,**\*\*** Rutenberg, R., S Danino,S., Horev, B., 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*. 214, 3319-3327.

IF 5.6; Category: Food Science and Technology; Rank 33/143, Q1.

1. Fadida, TPD., Kroupitski, Y., Peiper, UM, 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 Surf B.* 122, 294-300.

IF 6.0; Category: Biophysics;Rank 11/72, Q1.

1. Arnon, H S., Granit, R.,Porat, R., **Poverenov**, **E**.**\*\*** (2015).

Development of polysaccharides-based edible coatings for citrus fruits: a Layer-by-Layer approach.

*Food Chem*., 166, 465-472.

**IF 9.2**; Category: Food Science and Technology; Rank 8/143, Q1

1. Shlar, I., **Poverenov, E**., Vinokur, Y., Horev, B., Droby, S., Rodov, V (2015).

High-throughput screening of nanoparticle-stabilizing ligands: application to preparing antimicrobial curcumin nanoparticles by antisolvent precipitation.

*NanoMicro Letters*, 7, 68-79.

**IF 14.3**; Category: NanoScience and Nanotechnology;Rank 11/103.

1. Fadida, TPD., Selilat-Weiss, A., **Poverenov, E\*\*** (2015)

N-hexylimine-chitosan, a biodegradable and covalently stabilized source of volatile, antimicrobial hexanal. Next generation controlled-release system.

*Food Hydrocolloids*, 48, 213-219.

**IF 11.5**; Category: Food Science and Technology; Rank 5/143, Q1

1. Khaskin, E PD., Fadida, T., Kroupitski, Y., Shemesh, M., Gulini, A., **Poverenov, E**.\*\* (2015).

A contact active bactericidial stainless steel via a sustainable process utilizing electrodeposition and covalent attachment in water.

*Green Chem*., 17, 2344-2347.

**IF 11.0**; Category: Chemistry, Multidisciplinary; Rank 21/171, Q1.

1. Rutenberg, R S., Leytus, G., Fallik, E., **Poverenov, E.\*\*** (2016).

Discovery of a non-classic host guest complexation mode in a b-cyclodextrin/propionic acid model.

*Chem.Commun.,* 52, 2565-2568.

IF 6.2; Category: Chemistry, Multidisciplinary; Rank 28/171, Q1.

1. Rutenberg, R S., Bernstein, S., Paster, N., Fallik, E., **Poverenov, E**.**\*\*** (2016).

Antimicrobial Films Based on Cellulose-Derived Hydrocolloids. A Synergetic Effect of Host-Guest Interactions on Quality and Functionality.

*Colloids Surf B,* 137, 138-145.

IF 6.0; Category: Biophysics;Rank 11/72, Q1.

1. [Rutenberg](http://www.tandfonline.com/author/Rutenberg%2C+Roi), R S.,  [Granit](http://www.tandfonline.com/author/Granit%2C+Rina), R.,  [Chen](http://www.tandfonline.com/author/Chen%2C+Yaira), Y.,  [**Poverenov**](http://www.tandfonline.com/author/Poverenov%2C+Elena)**, E.,**  [Weinberg](http://www.tandfonline.com/author/Weinberg%2C+Zwi+G), Z. G. (2016).

Encapsulated propionic acid as a silage additive.

*Isr. J. Plant Sci.* 58-63.

IF 0.82; Category Plant Science; Rank 188/222, Q4.

1. Buslovich, A S.,Horev, B., Rodov, V., Gedanken A., **Poverenov E.\*\***(2017).

One-step surface grafting of organic nanoparticles: in situ deposition of antimicrobial agents vanillin and chitosan on polyethylene packaging films.

J*. Mater. Chem. B*, 5, 2655-2661.

IF 7.6; Category: Materials Science, Biomaterials; Rank 10/46, Q1.

1. Bilbao-Sainz, C., Chiou, B.-S., Williams, T., Wood, D., Du, W.-X., Sedej, I.; Ban, Z., Vinokur, Y., Rodov, V., **Poverenov, E**. and McHugh, T. (2017).

Vitamin D-fortified chitosan films from mushroom waste.

*Carbohydr. Polym.* 16, 97-104.

**IF 10.7**; Category; Polymer Science; Rank 3/90, Q1.

1. Lu, H., Ban, Z., Wang, K., Li, D. Li, D., **Poverenov, E**.,Li, L., Luo, Z. (2017).

Aroma volatiles, sensory, and chemical attributes of strawberry (Fragaria×ananassa Duch.) achenes and receptacle.

*Int*. *J. Food Sci. Techn.* 52, 2614-2622.

I.F. 3.7, Category: Food Science and Technology, Rank 46/144, Q2.

1. Rutenberg, R, S Bernstein, S. Fallik, E., Paster, N., **Poverenov, E.\*\***(2018).

The improvement of propionic acid safety and use during the preservation of stored grains.

*Crop Protection*.110, 191-917.

IF 2.6; Category: Agronomy; Rank 26/91, Q1.

1. Golden, G S., Quinna, E., Shaaya, E., Kostyukovsky, M., **Poverenov, E.\*\*** (2018).

Coarse and nano emulsions for effective delivery of natural pest control agent pulegone for stored grain protection.

*Pest Management Sci.*74, 820-827.

I.F. 4.9, Category: Agronomy; Rank 9/91, Q1.

1. Yana, J., Ban, Z., Lu, H., Li, D., **Poverenov, E.**, Li, L., Luo, Z (2018).

The aroma volatile repertoire in strawberry fruit: a review.

*J. Sci. Food Agr. 98,* 4395-4402*.*

IF 3.6; Category: Agriculture, Multidisciplinar; Rank 8/58, Q1.

1. Buslovich,A S., Horev, B., Shebis, Y., S Rodov, V., Gedanken, A., **Poverenov, E.**\*\* (2018)

A facile method for the deposition of volatile natural compound-based nanoparticles on biodegradable polymer surfaces.

*J. Mater. Chem. B,* 6, 2240-2249.

IF 7.6; Category: Materials Science, Biomaterials; Rank 10/46, Q1.

1. Ban, Z PD., Horev, B, Rutenberg, R, Danay, O, Bilbao,C, McHugh, T, Rodov, V., **Poverenov, E\*\*** (2018).

Efficient production of fungal chitosan utilizing an advanced freeze-thawing method; quality and activity studies.

*Food Hydrocolloids*, 81, 380-388.

**IF 11.5**; Category: Food Science and Technology; Rank 5/143, Q1

1. Bilbao-Sainz, C., Chiou, B.-S., Punotai, K., Olson, D., Williams, T.; Wood, D., Rodov, V.,

**Poverenov, E**., McHugh. T. (2018).

Layer-by-layer alginate and fungal chitosan based edible coatings applied to fruit bars.

*J. Food Sci*. 83, 1880-1887.

IF 3.2; Category: Food Science and Technology; Rank 57/144, Q2.

1. Boguslavcki, Y S.,Shemesh, M., Rutenberg, R., Molad Filossof, A., Buslovich, A., **Poverenov, E**.\*\* (2018).

Eliminating the Need for Biocidal Agents in Anti-Biofouling Polymers by Applying Grafted Nanosilica Instead.

*ACS Omega*, 3, [12437-12445](https://pubs.acs.org/action/showCitFormats?doi=10.1021%2Facsomega.8b01438)

I.F 4.1; Category: Chemistry Multidisciplinary; Rank 73/179, Q2.

1. **Poverenov, E**.,**\*\*** Arnon,H. Zaicev,Y. Bar,V. Danay, O. Horev, B., Bilbao-Sainz, C., McHugh, T. Rodov, V. (2018).

Potential of chitosan from mushroom waste to enhance quality and storability of fresh-cut melons.

*Food Chem.*, 263, 233-241.

**IF 9.2**; Category: Food Science and Technology; Rank 8/143, Q1.

1. Rutenberg, R S.,Golden, Cohen, Y., G., Kleiman, M., **Poverenov, E.\*\*** (2018).

Investigation of the Substituent Effect in Modified Nature-Sourced Polymers; Rational Side Chain Engineering to Control Yield, Design, and Properties.

*ACS Omega*. 3, 12841-12850.

I.F 4.1; Category: Chemistry Multidisciplinary; Rank 73/179, Q2.

1. Rutenberg, R S., Galaktionova, D., Golden, G., Cohen, Y., Levi-Kalisman, Y., Cohen, G., Král, P., **Poverenov, E.\*\*** (2018)

Omniphilic Polysaccharide-Based Nanocarriers for a Modular Molecular Delivery in a Broad Range of Bio-Systems.

*ACS* *Appl. Mat. Interfaces*, 10, 36711-36720.

**IF; 9.2**; Category: NanoScience and Nanotechnology; Rank 18/103, Q1.

1. Arnon-Rips,H S., Porat, R., **Poverenov, E**.\*\* (2019).

Enhancement of agricultural produce quality and storability using citral-based edible coatings; the valuable effect of nano-emulsification in a solid-state delivery.

*Food Chem*. 277, 205-212.

**IF 9.2**; Category: Food Science and Technology; Rank 8/143, Q1

## [Shebis](https://www.sciencedirect.com/science/article/pii/S0927776520301612" \l "!), Y S.,[Bhooshan Kumar, V., Gedanken, A., **Poverenov, E**.**\*\*** (2020)](https://www.sciencedirect.com/science/article/pii/S0927776520301612#!)

## Cooperative crystallization effect in the formation of sonochemically grafted active materials based on polysaccharides.

*Colloids Surf. B,* 190, 110931.  IF 6.0; Category: Biophysics;Rank 11/72, Q1.

1. Arnon-Rips, H S.,Tepper-Bamnolker, P., Chalupovich, D., Eshel, D., Porat, R., **Poverenov, E**.**\*\*** (2020)

Effective suppression of potato tuber sprouting using polysaccharide-based emulsified films for prolonged release of citral.

*Food Hydrocolloids*, 103, 105644.

**IF 11.5**; Category: Food Science and Technology; Rank 5/143, Q1.

1. Cohen YS,Rutenberg R,Cohen G, Veltman B, Gvirtz R, Fallik E, Danino D, Eltzov E, **Poverenov E.\*\*** (2020)

Aminated polysaccharide-based nanoassemblies as stable biocompatible vehicles enabling to cross biological barriers. An effective transdermal delivery of Diclofenac medicine.

*ACS Appl. Bio Mater.* 3, 2209–2217.

IF; new journal in ACS Publications Category: Chemistry Multidisciplinary.

1. Nasonova, A., Cohen, Y.,**Poverenov, E.,** Borisover, M.(2020)

Binding interactions of salicylic acid with chitosan and its N-alkylated derivative in solutions: an equilibrium dialysis study.

*Colloids Surf A*, 603, 125202.

IF 5.5; Category: Chemistry, Physical;Rank 62/163, Q2

1. Gaur, R. Z., Khoury, O. Zohar, M., **Poverenov, E**., Darzi, R., Laor, Y., Rosmanik, R. (2020)

Hydrothermal Carbonization of Sewage Sludge Coupled with Anaerobic Digestion: Integrated Approach for Sludge Management and Energy Recycling.

Energy Convers. Manag., 224, 113353.

**IF 11.5**; Category: Mechanics; Rank 3/138, Q1

# Cohen Y S.,Yasour, H., Tworowski., D., Fallik, E., Poverenov, E.\*\* (2021). Stimuli-Free Transcuticular Delivery of Zn Microelement Using Biopolymeric Nanovehicles: Experimental, Theoretical, and In Planta Studies.

# *ACS Nano*, 15, 19446–19456.

**IF 18.0**; Category: Material Science Multidisciplinary; Rank 20/346, Q1

1. [Arnon-Rips](https://www.sciencedirect.com/science/article/pii/S0308814620316848#!), H S., Cohen, Y.,Saidi, L.,Porat, R., **Poverenov, E.\*\*** (2021).

Covalent linkage of bioactive volatiles to a polysaccharide support as a potential approach for preparing active edible coatings and delivery systems for food products.

*Food Chem*, 338, 127822.

**IF 9.2**; Category: Food Science and Technology; Rank 8/143, Q1

1. Huang, R., Vaze, N., Soorneedi, A. Moore, M.D., Luo, Y., **Poverenov, E**., Rodov, V. Demokritou, P. (2021).

A Novel Antimicrobial Technology to Enhance Food Safety and Quality of Leafy Vegetables using Engineered Water Nanostructures.

Environmental Science: Nano, 8, 514-526.

**IF 9.5**; Category: NanoScience and Nanotechnology; Rank 28/110, Q1

1. [Saidi](https://www.sciencedirect.com/science/article/pii/S0925521420310140?dgcid=author#!), LS., [Duanis-Assaf, D., Galsarker, O., Maurer, D., Alkan, N.,](https://www.sciencedirect.com/science/article/pii/S0925521420310140?dgcid=author#!) **Poverenov, E.\*\*** (2021)

# Elicitation of fruit defense response by active edible coatings embedded with phenylalanine to improve quality and storability of avocado fruit.

*Postharvest Biol. Technol*. 174, 111442.

IF 6.8; Category: Agronomy; Rank 4/90, Q1

1. Kiel, S PD.,Klein, M.,Kroupitski, Y. Peiper, U. M., Sela Saldinger, S., Poverenov, E.\*\* (2021) Air‑ozonolysis activation of polyolefns versus use of laden finishing to form contact‑active nonwoven materials.

*Sci. Rep.*, 11, 10798.

IF 5.0; Category: Multidisciplinary; Rank 10/135, Q1

1. Shlar. I PD.,**Poverenov, E.\*\*** (2021)

A nanohybrid layered double hydroxide as an effective carrier for delivery and application of the phytohormone indole acetic acid .

*Colloids Surf B*, 207, 112032.

IF 6.0; Category: Biophysics;Rank 11/72, Q1

1. Imangaliyeva, A.N PD., Sela, A.,Eltzov, E, **Poverenov, E.\*\*** (2021)

The polyaminosaccharide-based buffers as a new type of zwitterionic buffering macromolecules for biochemical applications.  [*Carbohydr Polym.*](https://www.sciencedirect.com/science/journal/01448617), 273, 118601.

**IF 10.7**; Category; Polymer Science; Rank 3/90, Q1

1. Klein, MPD., Molad Filossof, A., Ashur, I., Vernick, S., Natan-Warhaftig, M., Rodov, V., Banin, E., **Poverenov, E.\*\*** (2021). In Situ Grafting of Silica Nanoparticle Precursors with Covalently Attached Bioactive Agents to Form PVA-Based Materials for Sustainable Active Packaging.

*Polymers*, 13, 2889.

IF 4.3; Category Chemistry (miscellaneous); Rank 103/446, Q1

1. Kehila, S.,S Alkalai-Tuvia, S., Chalupowicz, D., **Poverenov, E.**, Fallik, E. (2021)

Can Edible Coatings Maintain Sweet Pepper Quality after Prolonged Storage at Sub-Optimal Temperatures?

*Horticulturae*, *7*, 387.

IF 2.3; Category: Horticulture; Rank14/88, Q1

# Cohen, Y S., Cohen. G., Tworowski, D., Eretz-Kdosha, N., Silbershtein, E., Fallik, E., Poverenov, E.\*\* (2022)

# Biocompatible nanocarriers for passive transdermal delivery of insulin based on self-adjusting *N*-alkylamidated carboxymethyl cellulose polysaccharides.

*Nanoscale Adv.* 4, 2124

IF 5.6; Category; Chemistry Multidisciplinary; Rank 56/179, Q2

1. Duanis-Assaf, D., Galsurker, O., Davydov, O., Maurer, D., Feygenberg, O., Sagi, M., **Poverenov, E.**, Fluhr, R., Alkan, N. (2022)

Double-stranded RNA targeting fungal ergosterol biosynthesis pathway controls Botrytis cinerea and postharvest gray mold.

*Plant* *Biotechnol J*. 20, 226-237.

**IF 9.8**; Category: Agronomy and Crop Science; Rank 1/347, Q1

1. Veltman, B., Harpaz, D., Cohen, Y., **Poverenov, E.**, Eltzov, E. (2022).

Characterization of the selective binding of modified chitosan nanoparticles to Gram-negative bacteria strains.

*Int. J. Biol. Macromol.* 194, 666-675

IF 7.0; Category Polymer Science; Rank 6/88, Q1

1. Cohen Y, S Mwangi, E., Tish, N., Xu, J., Vaze, N. D., Klingbell, T., Fallik, E., Luo, Y., Demokritou, P., Rodov, V., **Poverenov, E.\*\*** (2022).

Quaternized chitosan as a biopolymer sanitizer for leafy vegetables: synthesis, characteristics, and traditional vs. dry nano-aerosol applications,

*Food Chem*, 378, 132056.

**IF 9.2**; Category: Food Science and Technology; Rank 8/143, Q1

1. Shebis, Y S.,Vanegas, A., Tish, N., Fallik, E., Rodov, V., **PoverenovE.\*\*** (2022).

Facile method for preparation of oligo-carboxymethyl cellulose and other oligosaccharides: physicochemical properties and bioactivity.

*Food hydrocolloids*, 127, 107530.

**IF 11.5**; Category: Food Science and Technology; Rank 5/143, Q1

1. Shebis, Y S.,Laskavy, A., Molad-Filossof, A., Arnon-Rips, H., Natan-Warhaftig,M., Jacobi. G., Fallik, E., Banin, E., **Poverenov,E.\*\*** (2022)

Non-radical synthesis of chitosan-quercetin polysaccharide: properties, bioactivity and applications.

*Carbohydr. Polym.*, 284, 119206.

**IF 10.7**; Category; Polymer Science; Rank 3/90, Q1

1. Shebis, YS., Fallik, E., Rodov, V., Sagiri, S. S., Poverenov E\*\* (2022).

Oligomers of Carboxymethyl Cellulose for Postharvest Treatment of Fresh Produce: The Effect on Fresh-Cut Strawberry in Combination with Natural Active Agents.

*Foods,* 11, 1117.

IF 5.9; Category; Food Science and technology; Rank 34/143, Q1

1. Zhou, B., Luo, Y., Nou, X., Mwangi, E., **Poverenov, E.**, Rodov, V., Demokritou, P., Fonseca, JM. (2023).

Effects of a novel combination of gallic acid, hydrogen peroxide and lactic acid on pathogen inactivation and shelf-life of baby spinach.

*Food Control*, 143, 109284.

IF 6.7; Category; Food Science and technology; Rank 20/143, Q1

1. Duanis-Assaf, D., Shlar, I., Galsurker, O., Davydov, O., Maurer, D., Feygenberg, O., **Poverenov, E**., Fluhr, R., Alkan N. (2022).

Nano-clay, layered-double hydroxide (LDH), improves the efficacy of double‐stranded RNA in controlling postharvest decay/

*Postharvest Biol. Technol*. 193,112051

IF 6.8; Category: Agronomy; Rank 4/90, Q1

1. Cohen, EPD., Avram,L., **Poverenov, E.\*\*** (2022)

Formation of Robust and Adaptive Biopolymers via Non-covalent Supramolecular Interactions

*Macromol. Rapid Commun*. DOI: 10.1002/marc.202200579

IF 5.0; Category: Polymer Science; Rank 15/90, Q1

1. Kaur, M. Cohen, Y., **Poverenov, E.,** Eltzov, E.(2022).

Synergistic antimicrobial effect of combination of beta-lactam antibiotics and chitosan derivative on multidrug resistant strain.

*Int. J. Biolog. Macromol.* 223, 1107.

IF 8.0; Category: Medicine miscellaneous; Rank 392/2489, Q1

1. Kiel, SS., **Poverenov, E.\*\*** (2023)

Rechargeable films for protection of dry foods: a sustainable method for covalent grafting of β-cyclodextrin-thymol complex on PET/viscose platform.

*Food Chem*, 412, 135560.

**IF 9.2**; Category: Food Science and Technology; Rank 8/143, Q1

1. Sela, AS., Cohen, E., Avram, L., Rodov,V., **Poverenov, E.\*\*** (2023)

Solvent-free synthesis of polysaccharide derivatives via heterogeneous Schiff base chemistry.

Green Chemistry, **25**, 922 - 927

**IF 11.0**; Category: Chemistry, Multidisciplinary; Rank 21/171, Q1.

1. Ischakov, RS., Tworowski, D., Sadot, N., Sayas, T., Fallik, E., Kleiman, M., **Poverenov, E.\*\*** (2023)

Nucleoside-Based Cross-linkers for Biocompatible Hydrogels with Tunable Properties.

*ACS* *Appl. Mat. Interfaces*, **15**, 7359.

**IF; 10.4**; Category: NanoScience and Nanotechnology; Rank 18/103, Q1

1. Ischakov, RS., Eretz-Kdosha, N., Silberstein, E., Fallik, E., Cohen, G., **Poverenov, E.\*\*** (2023)

Oligochitosan and oxidized nucleoside-based bioderived hydrogels for wound healing  
*Carbohydr. Polym.*, **314**, 120947. <https://doi.org/10.1016/j.carbpol.2023.120947>

**IF 10.7**; Category; Polymer Science; Rank 3/90, Q1

1. Klein, E., Smith, E., Klap, C., Bakelman, E., Ophir, A., Sela, A., **Poverenov, E**., Rein, D., Cohen, Y., Eliahu, D., Shahal, S., Mechrez, G., Mani, K.A., Guruprasad Reddy, P., Domb, A.J., Pass, N., Dombrovsky, A. A (2023)

A Novel Platform for Root Protection Applies New Root-Coating Technologies to Mitigate Soil-Borne Tomato Brown Rugose Fruit Virus Disease

*Viruses*, **15**, 728.

IF 5.8; Category: Inflectional Deceases; Rank 52/301, Q1

1. Kaur, M., Cohen, Y., **Poverenov, E**., Eltzov, E. (2023)

Binding selectivity of N-alkylaminated modified chitosan nanoparticles produce a synergistic antibacterial effect against gram-negative strains,

Reactive and Functional Polymers, 186, 105567.

IF 5.0; Category: Materials Chemistry; Rank 70/303, Q1

1. Sela, AS, Shkuri, N., Tish, N., Rodov, V., **Poverenov, E.\*\*** (2023)

Carboxymethyl chitosan-quercetin conjugate: a sustainable one-step synthesis and use for food preservation

*Carbohydr. Polym.*, **316**, 121084.

**IF 10.7**; Category; Polymer Science; Rank 3/90, Q1

1. Itzhakov RS, Hak H, Sadhasiavam S, Belausov E, Fallik E, Spiegelman Z, Sionov E, **Poverenov E.\*\*** (2023)

Nanogel Particles-Based on Modified Nucleosides and Oligosaccharides as Advanced Delivery System

*ACS Nano*, 17, 23020–23031

**IF 18.0**; Category: Material Science Multidisciplinary; Rank 20/346, Q1

1. Kumar V,Nadarajan S,Kumari A, Cohen Y, Klingbel T, Bar E, Lewinsohn E, EiladY, Poverenov E, Oren-ShamirM. (2024).

Phenylalanine encapsulation into an amphiphilic carboxymethyl cellulose-derivative enhanced plant uptake and metabolism efficiency.

*Postharvest Biol. Technol*., **211**, 112812.

IF 6.8; Category: Agronomy; Rank 4/90, Q1

1. Sela A, S Mossa S,Rodov V, Iasur Kruh L, **Poverenov E.\*\*** (2024)

Carboxymethyl chitosan-N-alkylimine derivatives: synthesis, characterization and use for preservation of symbiotic biofertilizer bacteria on chickpea seeds.

*Int J Biol. Macromol.* 262, 130057.

IF 8.2; Category: Biochemistry; Rank 90/445, Q1

# Sagiri S S,PD Poverenov E.\*\* (2024) Oleogel-Based Nanoemulsions for Beverages: Effect of Self-Assembled Fibrillar Networks on Stability and Release Properties of Emulsions.

*Foods,* 13, 680.

IF 5.9; Category; Food Science and technology; Rank 34/143, Q1

**2. Books Reviews and Opinion Articles**

1. Arnon-Rips, H.S and **Poverenov, E**.**\*\*** (2018).

Layer-by-Layer Edible Coatings to Improve Quality and Storability of Food Products. Review.

*Trends in Food Sci. Technol*. 75, 81-92.

**IF 16**.**0**, Category: Food Science and Technology, Rank 2/143, Q1.

1. **Poverenov, E.\*\*** and Klein M.(2018).

Formation of contact active antimicrobial surfaces by covalent grafting of quaternary ammonium compounds.

*Colloids Surf B., 169*, 195-205.   IF 6.0; Category: Biophysics;Rank 11/72, Q1.

# Klein, M. PD and Poverenov E.\*\* (2020). Natural biopolymer‐based hydrogels for use in food and agriculture. Invited Review

# *JSFA*. 100, 2337.

IF 4.1; Category: Agriculture Multidisciplinary; Rank 12/59, Q1.

# [van Houten, F.](https://www.sciencedirect.com/science/article/pii/S1755581720301358?dgcid=coauthor#!), [Wertheim R.](https://www.sciencedirect.com/science/article/pii/S1755581720301358?dgcid=coauthor#!), [Ayali, A.](https://www.sciencedirect.com/science/article/pii/S1755581720301358?dgcid=coauthor#!), [Poverenov, E.](https://www.sciencedirect.com/science/article/pii/S1755581720301358?dgcid=coauthor#!), [Mechraz, G.,](https://www.sciencedirect.com/science/article/pii/S1755581720301358?dgcid=coauthor#!) [Eckert, U.](https://www.sciencedirect.com/science/article/pii/S1755581720301358?dgcid=coauthor" \l "!), [Rentzsch, H.](https://www.sciencedirect.com/science/article/pii/S1755581720301358?dgcid=coauthor#!), [Dani, I.](https://www.sciencedirect.com/science/article/pii/S1755581720301358?dgcid=coauthor#!), [Willocx, M.](https://www.sciencedirect.com/science/article/pii/S1755581720301358?dgcid=coauthor#!) [Duflou, J.R.](https://www.sciencedirect.com/science/article/pii/S1755581720301358?dgcid=coauthor#!) (2021).

# Bio-based design methodologies for products, processes, machine tools and production systems.

## [CIRP Journal of Manufacturing Science and Technology](https://www.sciencedirect.com/science/journal/17555817), 32, 46-60.

IF 3.6. Category: Engineering, Manufacturing, Rank 29/63, Q2.

1. Cohen, E.PD and **Poverenov E\*\*** (2022)

Hydrophilic Chitosan Derivatives: Synthesis and Applications. Review

*Chem. A Eur. J.* 28, <https://doi.org/10.1002/chem.202202156>

IF 5.0. Category: Chemistry, Rank 3/453, Q1

**3. Book Chapters**

1. **Poverenov**, **E**. and Milstein, D. (2009).

Quinone methide stabilization by metal complexation.

In Reactive Intermediates Chemistry and Biology. (S.E. Rokita ed.)

Publisher John Wiley & Sons, New Jersey, USA.

**Invited Chapter**

1. **Poverenov, E.,** Milstein, D. (2013).

Noninnocent Behavior of PCP and PCN Pincer Ligands of Late Metal Complexes. In: van Koten, G., Milstein, D. (eds) Organometallic Pincer Chemistry. Topics in Organometallic Chemistry, vol 40. Springer, Berlin,

1. Arnon-Rips, H S., Porat, R., **Poverenov, E**.**\*\*** (2016).

Biopolymers-embeded nanoemulsions and other nanotechnological approaches for safety, quality and storability enhancement of food products: active edible coatings and films.In Emulsions.(A.M. Grumezescu, ed.), Publisher Elsevier Academic Press. Cambridge, Massachusetts, USA.

**Invited Chapter**

1. **Allowed Patents and Registered Cultivars**
2. **Poverenov, E**., Rutenberg, R., Cohen, Y. (2019) Omniphilic nano-vesicles based on modified polysaccharides for delivery of active agents. PCT/IL2019/050329 National
3. **Poverenov, E**., Klein, M., Khil, S. (2020) Methods of merging cyclodextrin hosts with nonwoven finishing to form smart fabrics containing various beneficial agents and products made from the methods PCT/IL2020/051199
4. **Poverenov, E**., Arnon-Rips, H., Porat, R., Eshel, D., Tepper-Bamnolker, (2020) Emulsified film compositions and methods to suppress sprouting of potato tubers. PCT/IL2020/051282.
5. **Poverenov, E**. (2021) Protected plants and methods of obtaining them. PCT/IL2021/050293.
6. Alkan. N, **Poverenov E**. (2021) Edible Coatings for Maintaining Fruit Quality. PCT/IL2021/050956
7. **Poverenov E**, Cohen G (2022) Biocompatible systems for effective transdermal delivery of insulin based on flexible nanocarriers. PCT/IL2022/42923