

## CV

### CURRICULUM VITAE

#### ARIE MARKUS

##### Personal Details

Date of Birth: July 21, 1946  
Address: (Work) The Institutes for Applied Research,  
Ben-Gurion University of the Negev, P.O. Box 653, Beer-Sheva  
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• **Education**  
1967: B.Sc. degree at the Hebrew University of Jerusalem, Chemistry and Physics.

1969: M.Sc. degree in Chemistry. Department of Organic Chemistry at the Hebrew University of Jerusalem under the supervision of Prof. E.D. Bergmann and Prof. R. Ikan.  
Subject: "Synthesis in the Steroids Line."

1972: Ph.D degree in Organic Chemistry. Department of Organic Chemistry, The Hebrew University, Jerusalem, under the supervision of Prof. E.D. Bergmann and Prof. R. Ikan.  
Subject: "Semi Total Syntheses of Natural Sterols".

• **Employment History**  
1990- Head of Institute for Chemistry & Chemical Technology  
1993 - Research grade A+, senior investigator (equivalent to full professor), Head of the Controlled Release Laboratory.  
Summers 2003, 2004, 2005, 2006, 2007 to 2008 Visiting Professor at Florida University, Gulf Coast Research and Education Center with Prof. Dave Schuster

##### Scientific publications

###### List of latest Publications in Journals

1. Margalit, J., Markus, A. and Pelah, Z. Effect of Encapsulation on the presistence of *Bacillus thuringiensis var. israelensis*, sero type H-14 Appl. Microbid. Biotechnol., 19, 1984 p. 382.
2. Markus, A., P., Felix, S. and Pelah, Z. Encapsulation of triphenyltin hydroxide. J. Microencapsulation 3, 39, 1986.
3. Markus, A. and Pelah, Z. Encapsulation of Vit. A. J. Microencapsulation. 6, 1989, p 389.
4. Albin, P., Markus, A., Pelah, Z. and Ben-Zvi, Z. A new slow release formulation of metoprolol: in-vitro and in-vitro evaluation in dogs. J. Controlled Release., 23, 1993, p.1
5. Albin, P., Markus, A., Pelah, Z. and Ben-Zvi, Z. Slow release indomethacin formulations based on polysaccharide evaluation *in vitro* and *in vivo* in dogs. J. Controlled Release, 29 (1994), 25-39.
6. Markus, A. Advances in the technology of controlled release pesticide formulations in Microencapsulation methods and industrial application. P. 73-93. Marcel Dekker Inc. 1996.
- 7.. Markus, A. and Linder, C. Advances in the technology of Controlled Release pesticide formulations in Microencapsulation methods and industrial application. p. 55-77 Francis Taylor, 2005.

8. Schwartz L. Wolf, D., Markus, A. and Wiesman, Z. A new chemical release system for insect growth regulator cyromazine clean products and processes 3(1) 49-54 (2001).
- 9/ Wybraniec, S., Schwartz, L., Wiesman, S., Markus A. and Wolf, D. Release characteristic of encapsulated formulation incorporating plant growth factor. Journal of environmental science and health - Part B. 37(3) 235-245 (2002).
10. Wiesman, Z. Luber, M. Ronen, A. and Markkus, A. Fertivant- A new non destructive and long-lasting *in vivo* delivery system for foliar nutrients. Acta Horticultura 2001 in press.
11. Schwartz, L., Wolf, D., Markus, Wybraniec, S. and Wiesman, Z. (2003). Controlled-release systems for delivery of the insect growth regulator pyriproxifan. J. Agric. & Food Chem. 51(20), 5985-5989 (2003).
12. Schwartz, L., Wolf, D., Markus, Wybraniec, S. and Wiesman, Z. (2003). Controlled release systems for delivery of cyromazine. J. Agric. & Food Chem. 51(20) 5972-5976 (2003).
13. Wiesman, Z. Markus, A. Wybraniec, S. Schwartz, L., Wolf, D. Promotion of rootings and development of cuttings by plant growth factors formulated into controlled release systems. Biology and Fertility of Soils 36(5) 330-334 (2002).

#### International Patents

1. Markus, A., and Pelah, Z. Encapsulation of Diazinon. U.S. Patent No. 4,851,227. (1990)
2. Markus, A. and Pelah, Z. Encapsulation of Diazinon. Italian Patent 1,218,159. (1990)
3. Markus, A. and Pelah, Z. Encapsulation of Diazinon. French Patent Pending No. 8710733.
4. Markus, A., Pelah, Z. and Aharonson, N. Encapsulation of herbicides. U.S. Pat. pending No. 259246.
5. Markus A. Microencapsulated composition containing chlorpyrifos or endosulfan U.S.P. 5,549,903 (1996).
6. Markus, A. Microencapsulated composition containing chlorpyrifos or endosulfan. South African Patent 95/1786
7. Sorell, L.S. Witrosch P. Bies R. Collier S. and Markus A. Transdermal chemical device PCT WO 98/14768 (1998)
8. Markus, A. A process for encapsulating laygon PCT/IL18/00177
9. Markus, A., Wiesman Z. and Wolf D. Encapsulated fertilizers PCT/IL98/00322
10. Sintov A., Wolf D., Markus A. and Mumacheglo K. Topical peduculidical compositions PCT/GB97/01434
11. Markus, A. EPO748158B1. Encapsulation composition of chlorpyrifos or endosulfan 2003.
12. Markus, A. Microencapsulated Composition of Chlorpyrifos or Endosulfan. In Pat. EP 0 748 158 B1.
13. Markus, A., Legro Robert Jean, Polymeric Envelopes. WO03020028, 2003.
14. Markus, A. and Linder C. Encapsulated essential oils WO 04/098767
15. Markus A., Schuster, D., Strongin P. and Linder C. Formulation containing microencapsulated essential oils USP 11/040, 102.
16. Markus A. Linder C. Strongin P. and Kritzman A Application of microencapsulated essential oils PCT IL 2007\ 000213

#### Commercialized Products Due to My Research

1. NO-ROACH (Antikan) manufactured by Lever (Israel) Co.,
5. "Master 25" - Encapsulated Pyrinex manufactured by Makhteshim Ltd.
6. Encapsulated Thionex manufactured by Makhteshim Ltd.

7. "Effective" Encapsulated Laygon manufactured by "Eshed" Chem.
8. AgroVant – Start-up Company. Beer-Sheva, Israel.
9. De-Bugger - Encapsulation Pyrethroids "Eshed" Chem.
10. BotanoCap- Start-up Comp. Ashqelon, Israel
11. CyPaz 20 E.W. Aqueous Concentrate "Eshed" Chem.