



Education

Ph.D, Department of Chemical Engineering |Technion| 2014-2018

Advisors: Prof. Yachin Cohen and Dr. Dmitry Rein

Ph.D. Thesis – "Process for enzymatic degradation of cellulose"

M.Sc in Evolutionary and Environmental Biology| University of Haifa| 2007-2009

Advisors: Prof. Avraham Haim and Prof. Baruch Reinkevich

M.Sc Thesis - "Signal transduction pathways in the blastogenesis cycle of the star ascidian"

B.Sc in Biotechnology Engineering |Ort Braude College| 2003-2007

Courses:

Materials and energy balances

Biotechnological engineering

Separation process

Project in bioengineering

Research interests:

- Biopolymers
- Biomass utilization
- Biofuels

Experience

Teaching Experience

ORT Braude College of Engineering:

Materials and energy balances

Biotechnological engineering

Separation process

Project in bioengineering

Technion:

Environmental safety in the Chemical Industry

Industrial Experience

Consultant for oil and waxes unit, Oil Refineries Ltd., 2014-2018

Production manager of Oil and waxes unit, Oil Refineris ltd., 2012-2014

Process engineer, Oil Refineries ltd., Haifa, 2009-2012

Publications

Alfassi G., Rein D.M., Shpigelman A., and Cohen Y., (2019), Partially Acetylated Cellulose Dissolved in Aqueous Solution: Physical Properties and Enzymatic Hydrolysis, *Polymers*, 11, 1734-1743.

Alfassi G., Rein D.M, and Cohen Y., (2019), Partial cellulose acetylation in ionic liquid induced by dichloromethane, *J Polym Sci A Polym Chem*, 56, 2458-2462.

Alfassi G., Rein D.M, and Cohen Y., (2018), Cellulose emulsions and their hydrolysis, *J Chem Technol Biotechnol*. 94,178-184.

Alfassi G., Rein D.M, and Cohen Y., (2017), Enhanced hydrolysis of cellulose hydrogels by morphological Modification. *Bioprocess Biosyst Eng*. 40, 1635-1641.

Rosner A., **Alfassi G.**, Moiseeva E., Paz G., Rabinowitz C., Lapidot Z., Douek J., Haim A., and Rinkevich B. (2014). The involvement of three signal transduction pathways in botryllid ascidian astogeny, as revealed by expression patterns of representative genes. *Int J Dev Biol*. 58, 677-692.

Rinkevich Y., Voskoboynik A., Rosner A., Rabinowitz C., Paz G., Oren P., Douek J., **Alfassi G.**, Moiseeva E., J. Ishizuka K.J., Palmeri K.J, Weissman I.L., and Rinkevich B. (2013). Repeated, long-term cycling of putative stem cells between niches in a basal chordate. *Dev. Cell*. 24, 76-88.

Alfassi G., Haim A., and Rinkevich B. (2010). Signal transduction pathways in the blastogenesis cycle of the star ascidian, *Botryllus schlosseri*. *Isr J Ecol Evol*. 56, 76.

Rabinowitz C., **Alfassi G.**, and Rinkevich B. (2009). Further portrayal of epithelial monolayers emergent de novo from extirpated ascidians palleal buds In Vitro. *Cell. Dev. Biol*. 45:334–342.

Patents

Rein, D.M.; Cohen, Y.; Vaykhansky, L.; **Alfassi, G.** Method for combined preparation of saccharides, alcohols and biodiesel. W.O. Pat. Appl. 2017042804 A1, 2016.

Rein, D.M.; Cohen, Y.; **Alfassi, G.** Cellulose-encapsulated oil emulsions for the cellulase's regeneration. PCT.IL2019.051084