Curriculum Vitae

Eyal Zussman

Faculty of Mechanical Engineering
Technion-Israel Institute of Technology
Haifa 32000, Israel
http://hitech.technion.ac.il/~eyal

Education

1982-1986	B.Sc.,	Mechanical Engineering, Technion,	Israel (Cum Laude)
1986-1988	M.Sc.,	Mechanical Engineering, Technion,	Israel
1988-1992	D.Sc.,	Mechanical Engineering, Technion,	Israel (Advisor: Prof. E. Lenz)
1992-1994	PostDoc, Technical University Berlin, Germany (Host: Prof. G. Seliger)		

Academic Appointments

2012 –	Full Professor, Faculty of Mechanical Engineering, Technion.
2002-2012	Associate Professor with tenure, Faculty of Mechanical Engineering, Technion.
2010 -	Visiting Research Professor, National University of Singapore, Nanotechnology Initiative.
1996-2002	Senior Lecturer, Faculty of Mechanical Engineering, Technion.
1994-1996	Lecturer, Faculty of Mechanical Engineering, Technion.
2003-2004	Visiting Scholar, Dept. of Mechanical Engineering, Northwestern University, IL.
Summer 1998	Visiting Researcher, Dept. of Mechanical Engineering, UC Berkeley
Summer 1997	Visiting Researcher, Dept. of Mechanical Engineering, New Jersey Institute of Technology.
1996-	Head of the Laboratory for Manufacturing Systems, Faculty of Mechanical Engineering, Technion.
1986-1992	Teaching Assistant, Faculty of Mechanical Engineering, Technion.

Research Interests

Development and Fabrication of Polymer Nano-Structures; Mechanical/Thermo-mechanical Characterization of Nano-structures, Electrospinning, Microfluidics.

Honors

2005	Hershel Rich – Technion Innovation Award
2003	Anti-terror award, Technion Institute for Future Defense Technologies
7/92-8/94	Minerva Scholarship for post-doctoral studies
1992	Kennedy-Leigh Award, Technion
1991	Gutwirth Fellowship, Technion
1988	Gutwirth Fellowship, Technion

Research Grants (last 5 years)

[P1] 11-15 Israel Science Foundation (**ISF**),
"Size-dependent behavior in electrospun polymer nanofibers."

[P2] 10-12 **HP**-Indigo
"Thin films formation."

[P3] 10- 14 The Singapore National Research Foundation (**NRF**),
"Regenerative medicine initiative in cardiac restoration therapy."

[P4] 12-14 **Bioline Rx**
"Mechanically adaptive polymer fiber mats."

[P5] 09-12 The Israeli Ministry of Trade & Industry, **MAGNET**
"Nano Empowerment Solutions."

[P6] 11-14 Israel Ministry of Science and Technology (**MOST**) and the German Ministry of Education and Resaearch (**BMBF**). "Advanced Technologies for Bacterial Cell Encapsulation for Water treatment"

[P7] 07-11 United States-Israel Bi-national Science Foundation (**BSF**)
"The Mechanical Properties of Polymer Nanofibers."

[P8] 10-11 **Johnson & Johnson** (COSAT),
"Capillary Network,"

[P9] 06-09 Israel Science Foundation (**ISF**),
"Mechanical and structural investigation and characterization of electrospun PAN and Carbon nanotubes-derived carbon nanofibers."

[P20] 04-07 **Volkswagen Foundation**
"Functional Composite- Nanofibers by Co-electrospinning."
Jointly with: Prof. J.H. Wendorff, Prof. A. Greiner (Marburg University), and Prof. A.L. Yarin

Publications (last 5 years)

Students / Researchers from Zussman group are indicated with the superscripts $^{(S)}$ and $^{(R)}$, respectively.

Refereed papers in professional journals

[R1] A. Arinstein,$^{(R)}$ M. Burman,$^{(S)}$ O. Gendelman, and E. Zussman, "The effect of super molecular structure on polymer nanofiber mechanical properties," *Nature nanotechnology*, 2, 59-62, 2007.

[R2] S. Reznik,$^{(R)}$ W. Salalha,$^{(S)}$ A.L. Yarin, and E. Zussman, "Fiber alignment using capillary forces," *Journal of Fluid Mechanics,* 574, 179-207, 2007.

[R3] D.M. Rein, L. Shavit-Hadar, R.L. Khalfin, Y. Cohen, K. Shuster,$^{(R)}$ and E. Zussman, "Electrospinning of Ultra-High Molecular Weight Polyethylene (UHMWPE) Nanofibers," *Journal of Polymer Science Part B: Polymer Physics*. 45, 766–773, 2007.

[R4] E. Zussman, A.L. Yarin and R.M. Nagler, "Age - and flow- dependency of salivary viscoelasticity," *J. of Dental Research*. 86, 3:281-285, 2007.

[R5] D.H. Reneker, A.L. Yarin, E. Zussman, and H. Xu, "Electrospinning of nanofibers from polymer solutions," *Advances in Applied Mechanics (Review Paper)*, 41, 43-195, 2007.

[R6] Y. Dror,[(R)] W. Salalha,[(R)] R. Avrahami,[(R)] E. Zussman, A. L. Yarin, R. Dersch, A. Greiner, and J. H. Wendorff, "One-Step Production of Polymeric Micro-Tubes via Co-Electrospinning," *Small*, 3, 6: 1064-1073, 2007.

[R7] A.L.Yarin, E. Zussman, A. Greiner, and J.H. Wendorff, "Material encapsulation and transport in core-shell micro/nanofibers, polymer and carbon nanotubes and micro/nano channels," *J. of Materials Chemistry*, 17: 2585-2599, 2007.

[R8] P. Schechner, E. Kroll, E. Bubis, S. Chervinsky,[(R)] and E. Zussman, "Silver-plated Electrospun Fibrous Anode for Glucose Alkaline Fuel Cells," *Journal of the Electrochemical Society*, 154, 9: B942-B948, 2007.

[R9] A. Arinstein,[(R)] and E. Zussman, "Post-processes in Tubular Electrospun Nanofibers," *Physical Review E*, 76, 056303 (7 pp.), 2007.

[R10] Y. Greenberg,[(S)] Y. Lumelsky, M.S. Silverstein, and E. Zussman, "Synthesis of YBCO nanofibers by electrospinning a solution of poly(acrylic acid) and metal nitrates," *J. of Materials Science*, 43, 5: 1664-1668, 2008.

[R11] S. Srouji, T. Kizhner, E. Suss-Tobi, E. Livne, and E. Zussman, "3-D nanofibrous electrospun nanofibrous multilayerd construct is an alternative ECM Mimicking scaffold," *Journal of Materials Science: Materials in Medicine*, 19, 3: 1249-1255, 2008.

[R12] S. Prilutsky,[(S)] E. Zussman and Y. Cohen, "The effect of embedded carbon nanotubes on the carbonization of poly (acrylonitrile) nanofibers," *Nanotechnology*, 19, 165603-165012, 2008.

[R13] Y. Dror,[(R)] J. Kuhn, R. Avrahami,[(R)] and E. Zussman, "Encapsulation of enzymes in biodegradable tubular structures," *Macromolecules* 41, 12: 4187–4192, 2008.

[R14] Y. Dror,[(R)] T. Ziv, V. Makarov,[(R)] H. Wolf, A. Admon, and E. Zussman, "Nanofibers made of globular proteins," *Biomacromolecules* 9, 2749–2754, 2008.

[R15] M. Burman,[(S)] A. Arinstein,[(R)] and E. Zussman, "Free flight of an oscillated string pendulum as a tool for the mechanical characterization of an individual polymer nanofiber," *Applied Physics Letters*, 93, 193118 (3 pp.), 2008.

[R16] R. Tzezana,[(S)] E. Zussman, and S. Levenberg, "A Layered Ultra-Porous Scaffold for Tissue Engineering, created via a Hydrospinning Method," *Tissue Engineering C*, 14, 4: 281-288, 2008.

[R17] A. Arinstein,[(R)] R. Avrahami,[(R)] and E. Zussman, "Buckling behaviour of electrospun microtubes: a simple theoretical model and experimental observations," *Journal of Physics D: Applied Physic*, 42, 015507 (7 pp.), 2009.

[R18] O. Landau, A. Rothschild, and E. Zussman, "Microstructure evolution in electrospun TiO2 nanostructured layers: implications for ultrasensitive gas sensors," *Chemistry of Materials*, 21, 1: 9-11 2008.

[R19] D.M. Rein, Y. Cohen, A. Ronen, K. Shuster,[(R)] and E. Zussman, "Application of gentle annualr gas veil for electrospinning of polymer solutions and melts," *Polymer Engineering & Science*, 49, 4: 774-782, 2009.

[R20] S. Klein, J. Kuhn, R. Avrahami,[(R)] S. Tarre, M. Beliavski, M. Green, E. Zussman, "Encapsulation of bacterial cells in electrospun microtubes," *Biomacromolecules*, 10, 7, 1751–1756, 2009.

[R21] D. Feingold-Leitman, E. Zussman, and D. Seliktar, "In Vitro Evaluation of a Composite Scaffolds Made from Electrospun Nanofibers and a Hydrogel for Vascular Tissue Engineering," *Journal of Bionanoscience*, 3, 1: 45–57, 2009.

[R22] S. Reznik,(R) W. Salalha, Y. Sorek, D. Avramov, E. Zussman, "Entrainment of a film on a surface from the meniscus of a liquid wedge during coating," *Physics of Fluids*, 21, 102001 (14 pp.), 2009.

[R23] C.S. Reddy,(R) A. Arinstein,(R) R. Avrahami,(R) E. Zussman, "Fabrication of thermoset polymer nanofibers by co-electrospinning of uniform core-shell structures," *J. of Materials Chemistry*, 19, 7198–7201, 2009.

[R24] S. Reznik,(R) and E. Zussman, "Capillary-dominated electrified jets of a viscous leaky dielectric liquid," *Physical Review E.*, 81, 026313 (7 pp.), 2010.

[R25] S. Prilutsky,(S) P. Schechner, E. Bubis, V. Makarov,(R) E. Zussman and Y. Cohen, "Anodes for alkaline fuel cells based on electrospun carbon nanofibers," *Electrochimica Acta*, 55, 3694–3702, 2010.

[R26] O. Regev,(S) S. Vandebril, E. Zussman, C. Clasen, "The role of interfacial elasticity in the stabilization of an electrospun jet," *Polymer*, 51, 2611-2620, 2010.

[R27] S. K. Tiwari, R. Tzezana,(S) E. Zussman, H. Yizhong, S. S. Venkatraman, "Optimizing drug partitioning in electrospun core-shell fibres," *International Journal of Pharmaceutics*, 392,1-2: 209-217, 2010.

[R28] O. Regev,(S) R. Khalfin, E. Zussman, Y. Cohen, "About the albumin structure in solution and related electro-spinnability issues," *International Journal of Biological Macromolecules*, 47, 2: 261-265, 2010.

[R29] W. Salalha, D. Avramov, S. Reznik,(R) E. Zussman, "Elastohydrodynamic study of deformable blade-organic photoconductor conjunction," *Journal of Imaging Science and Technology*, 54, 050303 (10 pp.), 2010.

[R30] S. Prilutsky,(S) E. Zussman, and Y. Cohen, "Carbonization of electrospun poly(acrylonitrile) nanofibers containing multiwalled carbon nanotubes observed by TEM with in-situ heating," *Journal of Polymer Science Part B: Polymer Physics*, 48, 20:2121-22128, 2010.

[R31] S. Cohen, L. Leshansky, E. Zussman, M. Burman,(S) S. Srouji, E. Livne, J. Itskovitz-Eldor, "Repair of full-thickness tendon injury using connective tissue progenitors efficiently derived from human embryonic stem cells and fetal tissues," *Tissue Engineering A*, 16, 10: 3119- 3137, 2010.

[R32] D. Rein, Y. Cohen, J. Lipp,(R) E. Zussman, "Elaboration of ultra-high molecular weight polyethylene/carbon nanotubes electrospun composite fibers," *Macromolcular Materials & Enineering*, 295, 1003-1008, 2010.

[R33] S. Duzyer, A. Hockenberger and E. Zussman, "Characterization of solvent-spun polyester nanofibers," *J. of Applied Polymer Sceince*, 120, 2: 759-769, 2011.

[R34] S. Srouji, D. Ben-David, R. Lotan, E; Livne, R. Avrahami,(R) E. Zussman, "Slow-release hrBMP-2 embedded within electrospun scaffolds for regeneration of bone defect: in vitro and in vivo evaluation," *Tissue Enginering* A, 17, 3: 269-277, 2011.

[R35] E. Zussman, "Encapsulation of cells within electropsun fibers," *Polymers for Advanced Technologies*, 22, 3: 366–371, 2011.

[R36] A. Arinstein,(R) Y. Liu, M. Rafailovich, and E. Zussman, "Shifting of the melting temperature for semi-crystalline polymer nanofibers," *Europhysics Letters*, 93, 46001 (6 pp.), 2011.

[R37] C.S. Reddy,(R) A. Arinstein,(R) E. Zussman, "Polymerization kinetics under confinement," *Polymer Chemistry*, 2, 835–839, 2011.

[R38] A. Arinstein,(R) E. Zussman, "Electrospun Polymer Nanofibers: Mechanical and Thermodynamics Perspectives," *Journal of Polymer Science Part B: Polymer Physics*, 49, 10: 691-707, 2011.

[R39] S. Srouji, D. Ben-David, E., T. Kohler, R. Müller, E. Zussman, E. Livne, "A model for tissue engineering applications-femoral critical size defect in immunodeficient mice," *Tissue Engineering C*, 17, 5: 597-606 2011.

[R40] C. Beneoux, C. Itzhak, R. Avrahami,(R) E. Zussman, J. Frey, E. A. Katz, R. Yerushalmi–Rozen, "Fibers of functional nanocomposites of Poly(3-Hexythiophene) containing fullerene derivatives and carbon nanotubes," *Journal of Polymer Science Part B: Polymer Physics*, 49, 1263-1268, 2011.

[R41] Y. Liu, S. Chen, E. Zussman, C.S. Korach, W. Zhao, M. Rafailovich, "Diameter-Dependent Modulus and Melting Behavior in Electrospun Semicrystalline Polymer Fibers," *Macromolecules*, 44, 11: 4439-4444, 2011.

[R42] R. Halaui, A. Moldavsky, Y. Cohen, R. Semiat, E. Zussman, "Development of micro-scale hollow fiber ultrafiltration membranes," *Journal of Membrane Science*, 379, 370– 377, 2011.

[R43] M. Burman,(S) A. Arinstein,(R) E. Zussman, "Do Surface Effects Explain the Unique Elasticity of Polymer Nanofibers?," *Europhysics Letters*, 96, 16006 (5 pp.), 2011.

[R44] C..S Reddy,(R) A. Zak, E. Zussman, "WS_2 nanotubes embedded in PMMA nanofibers as energy absorptive material," *J. of Materials Chemistry*, 21, 16086–16093, 2011.

[R45] I. Greenfeld,(S) A. Arinstein,(R) K. Fezzaa, M.H. Rafailovich, E. Zussman, "Dynamics of Polymers in Semi-Dilute Solution during Electrospinning: A Simple Model and Experimental Observations," *Physical Review E*, 84, 041806 (9 pp.), 2011.

[R46] S. Hamer, H. Leibovich, A. Green, R. Intrater, R. Avrahami,(R) E. Zussman, A. Siegmann and D. Sherman, "Mode I Interlaminar Fracture Toughness of Nylon 66 Interleaved Carbon/Epoxy Laminates," *Polymer Composites*, 32, 11: 1781–1789, 2011.

[R47] L. Katz,(S) A. Donval, E. Zussman, and Y. Cohen, "Ordered Carbon Nanotubes for Optical Power Limiting Devices," *ACS Applied Materials and Interfaces*, 3, 12: 4611–4618, 2011.

[R48] R. Tzezana,(S) S. Reznik,(R) J. Blumenthal, E. Zussman, S. Levenberg, "Regulation of Stem Cell Differentiation by Tight Control of Retinoic Acid Gradients in hydrospun 3D scaffold," *Macromolecular Bioscience*, 12, 598–607, 2012.

[R49] D. Alhazov,(S) E. Zussman, "Study of the energy absorption capabilities of laminated glass using carbon nanotubes," *Composites Science and Technology*, 72, 681–688, 2012.

[R50] R. Naveh,(S) E. Zussman, "MEMS vacuum packaging by self-assembly," *Trans. of the ASME J. of Electronic Packaging*, 134, 021003 (7 pp.) 2012.

[R51] A. I. Shames, C. Bounioux, E. A. Katz, R. Yerushalmi–Rozen, E. Zussman, "Light-Induced electron paramagnetic resonance evidence of charge transfer in electrospun fibers polymer/fullerene/carbon nanotubes blend," *Applied Physics Letters*, 100, 113303 (4 pp.), 2012.

[R52] I. Greenfeld,(S) K. Fezzaa, M.H. Rafailovich, E. Zussman, "Fast X-ray phase-contrast imaging of electrospinning polymer jets: measurements of radius, velocity and concentration," *Macromolecules*, 45, 8: 3616-3626, 2012.

[R53] B. Holmes, N. J. Castro, L.G. Zhang, E. Zussman , "Electrospun Fibrous Scaffolds for Bone and Cartilage Tissue Generation: Recent Progress and Future Developments," *Tissue Engineering Part B: Reviews*, 478-486, 2012.

[R54] O. Regev,[(S)] C.S. Reddy,[(R)] N. Nseir,[(S)] E. Zussman, "Short albumin fibers reinforced hydrogel: Mechanical and biocompatibility characterization," *Macromolecular Materials & Engineering*, 298, 283–291, 2013.

[R55] O. Regev,[(S)] N. Nseir,[(S)] T. Kaully, J. Blumenthal, S. Levenberg, E. Zussman, "Albumin fibers as an effective, biocompatible and biodegradable biomaterial for tissue engineering applications," *Tissue Engineering C*, 19, 257-264, 2013.

[R56] N. Yousefi, X. Lin, Q. Zheng, X. Shen, J. R. Pothnis, J. Jia, E. Zussman, J-Kyo Kim, "Simultaneous in situ reduction, self-alignment and covalent bonding in graphene oxide/epoxy composites," *Carbon*, 59, 406-417, 2013.

[R57] R. Gal-Oz,[(S)] N. Patil,[(S)] R. Khalfin, Y. Cohen, E. Zussman, "Conductive PVDF-HFP nanofibers with embedded TTF-TCNQ charge transfer complex," *ACS Applied Materials & Interfaces*, 5, 6066−6072, 2013.

[R58] I. Greenfeld,[(S)] E. Zussman, "Polymer entanglement loss in extensional flow – evidence from electrospun short nanofibers," *Journal of Polymer Science Part B: Polymer Physics*, 51, 1377–1391, 2013.

[R59] D. Alhazov,[(S)] A. Gradys, P. Sajkiewicz, A. Arinstein, E. Zussman, "Thermo-mechanical behavior of electrospun thermoplastic polyurethane nanofibers," *European Polymer Journal*, 2013.

[R60] A. Camposeo, I. Greenfeld,[(S)] F. Tantussi, S. Pagliara, M. Moffa, F. Fuso, M. Allegrini, E. Zussman, D. Pisignano, "Local mechanical properties of electrospun fibers correlate to their internal nanostructure," *Nano Letters*, 2013.

Conferences (last 5 years)

Plenary or Invited Talks

[I1] The 72nd Meeting of the Israel Chemical Society, Session: Materials and Nano, Tel-Aviv, February, 2007. *Invited speaker*: "Co-electrospinning of core-shell polymer nanofibers and nanotubes."

[I2] The International Symposium on Nature-Inspired Technology (ISNIT2007), Daejeon, Korea October, 2007, *Invited speaker*: "Bio-mimetic electrospun nanostructures."

[I3] The 73rd Meeting of the Israel Chemical Society, Session: Nanocomposites, Jerusalem, February, 2008. *Invited speaker*: "Effect of supramolecular structure on polymer nanocomposite mechanical properties."

[I4] The 5th International Polymer Fibers 2008 conference, Manchester UK, July 2008. *Plenary Talk*: "The mechanical properties anomaly of electrospun fibers."

[I5] The 12th Annual Israeli Symposium on Composite Materials and Structures, Haifa, November 2008. *Invited speaker*: "Effect of supramolecular structure on polymer nanocomposite mechanical properties."

[I6] Gordon Research Conference (GRC) on "Detecting Illicit Substances: Explosives & Drugs". Les Diablerets Switzerland, June 2009. *Invited speaker*: "Efficient particles sampling using nanostructures surfaces."

[I7] Materials Research Society (MRS) Fall Meeting (2009), Symposium: Polymer Nano-Fibers: Fundamental Studies and Emerging Applications, Nov. 2009, Boston.
Invited lecture: "Thermo-Mechanics aspects of electrospun polymer nanofibers."

[I8] Gordon Research Conference (GRC) on Composites, Ventura, CA, Jan. 2010.
Invited speaker: "The mechanics and p hysics of nanocomposite fibers."

[I9] Solid State Day (Festkörpertag) Zentrum für Festkörperchemie und Neue Materialien (ZFM), University of Hannover Germany, Feb. 2011. *Keynote speaker:* "Electrospinning- from electrohydrodynamics to innovative Nanomaterials."

[I10] ASME 2011 International Mechanical Engineering Congress (IMECE), Denver,Colorado, Nov. 2011. Track: Mechanics of Solids, Structures and Fluids, Topic: Structure-Property Relationships of Polymers and Composites. *Plenary talk:* "Polymer Nanofibers: Mechanical and Thermodynamics Perspectives."

[I11] The 7th International conference on Nanotechnology for the Plastics & Rubber Industries, Shenkar College, Israel, Feb. 6, 2012. *Invited Lecture*: Electrospinning of Core/Shell Nanofibers: Modeling and Experimental Results.

[I12] Electrospinning, Principles, Possibilities and Practice Conference, Institute of Physics (IOP Dielectrics Group), London, UK March 2012, *Keynote Lecture*: "Experimental observations on polymer dynamics during electrospinning."

[I13] The 2nd international conference on electrospinning, South Korea, Jeju island, May 2012. *Keynote Lecture:* "Elasticity of Polymer Nanofibers."

[I14] CePT Seminar "Nano-biomaterials, modeling and visualization in biomechanics" The Institute of Fundamental Technological Research, Polish Academy of Sciences, Warsaw Poland, July 6th 2012, *Invited lecture*: "Development of Biohybrid materials by electropsinning of polymer microtubes."

[I15] The 10th Fall Rubber Colluqium, Hannover Germany, Nov. 2012. *Plenary talk:* "Polymer Nanofibers: Mechanical and Thermodynamics Perspectives."

[I16] COINAPO 2012 Meeting "Nanocomposites of inorganic fullerenes/nanotubes, their characterization, properties & testing", Weizmann Institute, Nov. 2012. *Invited Lecture:* "Functional 1D nanostructure materials using WS2 nanotubes."

[I17] 13th International Symposium on Polymeric Materials, Bayreuth, Germany, Sept. 2013. *Invited Lecture:* "Polymer network in a strong extensional flow: a study of the electrospinning jet."

Refereed papers in Conference Proceedings

(Lecture presenter is underlined)

[C1] A. Arinstein,(R) M. Burman,(S) and E. Zussman, "The Elastic Properties of Polymer Nanofibers: Influence of Confinement on Conformation State of Macromolecules and Supermolecular Structures," *Proc. of the Annual APS March Meeting*, Denver, CO, 2007.

[C2] E. Zussman, A.L. Yarin, J.H. Wendorff, and A. Griener, "Co-electrospinning of polymer and functional materials," *Proc. of the 3rd Int. Symposium on Complex Materials*, Kerkrade, The Netherlands, 2007.

[C3] D. Rein, Y. Cohen, A. Ronen, E. Zussman, K. Shuster, "Electrospinning of ultrahigh-molecular-weight polyethylene nanofibers," *Proc. of the Materials Research Society (MRS) Symposium*, San Fransico, CA, 2008.

[C4] E. Zussman, E. Shaked,(S) A. Arinstein,(R) "The Dynamic Reinforcement of Polyvinyl Alcohol (PVA) as a Result of Non-equilibrium State of Polymer Supermolecular Structures and their Confinement in Nanofibers," *Proc. of the Annual APS March Meeting*, Pittsburgh, PA, 2009.

[C5] S. Prilutsky,(S) Y. Cohen, V. Makarov,(R) E. Zussman, E. Bubis, P. Schechner, "Anodes for glucose fuel cells made of carbonized nanofibers with embedded carbon nanotubes," *Proc. of the Annual APS March Meeting*, Portland, OR, 2010.

[C6] I. Greenfeld,(S) A. Arinstein,(R) K. Fezza. M. Rafailovich, E. Zussman, "Polymer network stretching during electrospinning," *Proc. of the Annual APS March Meeting*, Dallas, TX, 2011.

[C7] M. Burman,(S) A. Arinstein,(R) E. Zussman, "Confinement and elastic modulus in polymer nanofibers," *Proc. of the Annual APS March Meeting*, Dallas, TX, 2011.

[C8] A. Arinstein,(R) E. Zussman, "Size-dependent behavior of electrospun polymer nanofibers under small deformation," *Proc. of the Annual APS March Meeting*, Dallas, TX, 2011.

[C9] E. Zussman, "Polymer dynamics during solution electrospinning: experimental observations of the structure of the jet," *Proc. of Int. Symp. on new forntiers in fiber material sceince*, Charleston, CS, 2011.

[C10] Y. Paley,(S) A. Arinstein,(R) K. Shuster,(R) E. Zussman, "Structure Formation in Semi-Dilute Polymer Solution during Electrospinning," *Proc. of the Annual APS March Meeting*, Boston, MA, 2012.

[C11] I. Greenfeld,(S) A. Camposeo, F. Tantussi, S. Pagliara, F. Fuso, M. Allegrini, D. Pisignano, E. Zussman, "Axial and radial nanostructures in electrospun polymer fibers," *Proc. of the Annual APS March Meeting*, Baltimore, MD, 2013.

[C12] Y. Liu, S. Che, E. Zussman, C. Korach, W. Zhao, Y. Guo, M. Rafailovich, "Diameter-Dependent Modulus and Melting Behavior in Electrospun Semicrystalline Polymer Fibers," *Proc. of the Annual APS March Meeting*, Baltimore, MD, 2013.

Papers in conferences proceedings

[G1] Y. Greenberg,(S) and E. Zussman, "Electrospinning High Temperture Superconductors (HTSC) nanfibers: fabricaton and characterization," *Proc. of the 3rd Int. Symposium on Complex Materials*, Kerkrade, The Netherlands, 2007. (poster)

[G2] Y. Dror,(R) E. Zussman, "Core-Shell Electrospun Fibers: Encapsulation of Enzymes," *The Annual Israel Chemical Society Meeting*, Tel Aviv, 2007. (poster)

[G3] O. Landau, A. Rothschild, V. Makarov,(R) E. Zussman, "Gas sensors based on electrospun titanium oxide nanofibers," *Proc. of the 13th Israel Materials Engineering Conference (IMEC)*, Haifa, 2007.

[G4] R. Tzezana,(S) E. Zussman, S. Levenberg, "Ultra-porous and highly permeable scaffold for tissue engineering through hydrospinning," *Experimental Biology – FISEB (ILANIT) Congress*, Eilat, 2008. (poster)

[G5] A. Arinstein,(R) Y. Dror,(R) and E. Zussman, "Effect of supermolecular structure on polymer nanocomposite mechanical properties," *Gordon Conference on Composites*, Ventura, CA, 2008. (Poster)

[G6] S. Prilutsky,(S) E. Bubis, P. Schechner, Y. Tsur, E. Zussman, Y. Cohen, "Composite carbon fiber with carbon nanotubes," *The 9th International Conference on the Science and Application of Nanotubes (NT'08)*, Montpellier, France, 2008. (poster)

[G7] N.M. Makhoul, E. Zussman, W. Zhang, S. Srouji, S. Feinberg, "Development of A Microcapillary System for Tissue Engineering," *Proc. of the 90th American Association of Oral and Maxillofacial Surgery meeting*, Seattle WA, Sept. 2008.

[G8] E. Zussman, "Bioabsorbable materials," *The Israeli Association for Arthroscopy and Knee Surgery*, Haifa, May, 2008.

[G9] E. Zussman, "Confinement and mechanics related issues of polymer nanofibers," *James H. Belfer Memorial Symposium on Nano-Bio Mechanics*, Weizmann Institute, Dec, 2008.

[G10] J. Lipp, M. Boas, Y. Eshed, D. Grinstein, E. Zussman, "Development of swabs with enhanced pareticle collection efficency," *Proc. of the 38th IPPS (Israel polymers & plastics society)*, Ramat Gan, Israel, 2009.

[G11] O. Regev, E. Zussman, "Spinnability issues of albumin," *The 6th International Polymer Fibers 2010 conference*, Edinburgh UK, July 2010.

[G12] I. Greenfeld,[S] A. Arinstein,[R] K. Fezza, M.H. Rafailovich, E. Zussman, "X-ray imaging of electrospinning polymer solutions," *Proc. of the Annual APS March Meeting*, Boston, MA, 2012.(poster)

[G13] D. Alhazov,[S] A. Gradys, P. Denis, P. Sajkiewicz, A. Arinstein,[R] and E. Zussman, "Thermo-mechanical behavior of electrospun thermoplastic polyurethane nanofibers," *European Polymer Congress* (EPF 2013), Pisa, Italy June 2013.

[G14] R. Gal-Oz,[S] N. Patil,[S] R. Khalfin, Y. Cohen, and E. Zussman, "Conductive PVDF-HFP nanofibers with embedded TTF-TCNQ charge transfer complex," *European Polymer Congress* (EPF 2013), Pisa, Italy June 2013.