MINHO LIOU

Master's Degree
Researcher @ ILJIN Corp.

New Product Development Team
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RESEARCH INTERESTS

- Electrohydrodynamics (Electrospinning/Electrospray applications)
- Electrospun self-healing nanofiber
- Photocatalysis applications (Water purification, Water splitting, Antimicrobial activity)

EDUCATION

Master in Mechanical Engineering, Candidate (4.21/4.5)
Korea University, Seoul, Korea
Advisor: Prof. Sam S. Yoon

Bachelor of Science in Mechanical Engineering, Feb. 2013 (3.56/4.5)
Konkuk University, Seoul, Korea
Advisor: Prof. Byung Wook Lee
Senior Dissertation: Negative ion generator via solar cell energy and water spray

EMPLOYMENT

- 2014/Sep to Present: Teaching Assistant, Department of Mechanical Engineering, ***Korea University***, Thermodynamics.
- 2014/Jan to 2014/Jun: Teaching Assistant, Department of Mechanical Engineering, ***Korea University***, Thermodynamics..

PUBLICATIONS (* corresponding author, †equal contribution)

International Journal Papers

1. MG Mali†, S An†, **M Liou**, SS Al-Deyab, SS Yoon, "Photoelectrochemical Solar Water Splitting using Electrospun TiO_2Nanofibers", ***Applied Surface Science***(IF=2.538), under revision,2014.
2. S An, C Lee, **M Liou**, HS Jo, JJ Park, AL Yarin, and SS Yoon*, "Supersonically Blown Ultrathin Thorny Devil Nanofibers for Efficient Air Cooling", ***ACS Applied Materials & Interfaces*** (IF=5.008), Accepted, 2014.
3. MW Lee†, S An†, C Lee, **M Liou**, AL Yarin and SS Yoon*, "Hybrid Self-Healing Matrix Using Core-Shell Nanofibers and Capsuleless Microdroplets", ***ACS Applied Materials & Interfaces*** (IF=5.008), Online published, 2014.
4. MW Lee†, S An†, C Lee, **M Liou**, AL Yarin and SS Yoon*, "Self-healing transparent core-shell

nanofiber coatings for anti-corrosive protection", ***Journal of Materials Chemistry A*** (IF=6.101), 2, 7045, 2014.

5. S An†, **M Liou**†, KY Song, HS Jo, MW Lee, SS Al-Deyab, AL Yarin*, SS Yoon*, Highly flexible transparent self-healing composite based on electrospun core-shell nanofibers produced by coaxial electrospinning for anti-corrosion and electrical insulation, ***Nanoscale*** (IF=7.394), 2015.

SKILLS

- Technique: SEM (Scanning electron microscopy), EDX (Energy dispersive x-ray spectroscopy), XRD (X-ray diffraction), XPS (X-ray photoelectron spectroscopy), FTIR (Fourier transform infrared spectroscopy), Raman spectroscopy, DSC (Differential scanning calorimetry), TGA (Thermogravimetry analysis, Optical surface profiler, Fluidic properties (Viscosity, electrical conductivity, surface tension, dielectric constant)
- Device fabrication: Electrospinning/electrospray device, Electroplating device, Supersonic flow nozzle, Water contact angle measurement device
- Design software program: ANSYS, CATIA, Solid Works, Pro Engineering, AUTO CAD

REFERENCE

- Prof. Sam S. Yoon, Associate Professor of Department of Mechanical Engineering at Korea University, skyoon@korea.ac.kr, 82-2-3290-3376.