

Ayman Z. Rizk

Contact

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United Arab Emirates

DOB: Jan 12, 1987 Marital status: Single Citizenship: Egyptian Sex: Male

Semiconductor engineer with 7-year clean room experience, capable of manning various cleanroom equipment, managing data and inspecting the devices being fabricated.

I am seeking challenging opportunities in the field of Nanotechnology/Fabrication and sharpen my skills by taking quality experience, possibly with extending Moore's law, fast switching devices, TFTs, NVMs and FEOL.

Education

Jan 2013 – May 2017 PhD in Microsystems Engineering, Masdar Institute & MIT, UAE
Sep 2010 – May 2012 MSc in Microsystems Engineering, Masdar Institute & MIT, UAE
Sep 2005 – Jun 2009 BSc in Electronics and Communication, Faculty of Engineering, Egypt

Professional & Research Experience

Sep 2010 – Present Research Assistant, Masdar Institute for Science & Technology, UAE
Nov 2014 – Dec 2014 Visiting Research Assistant, Bilkent University, UNAM, Turkey
Sep 2012 – May 2015 Teaching Assistant, Masdar Institute for Science & Technology, UAE
Jun 2012 – Aug 2012 Visiting Research Assistant, Bilkent University, UNAM, Turkey
Sep 2011 – May 2012 Teaching Assistant, Masdar Institute for Science & Technology, UAE
Sep 2009 – Sep 2010 Teaching Assistant, Tanta University, Faculty of Engineering, Egypt

Publications

Thin-Film ZnO Charge-Trapping Memory Cell Grown in a Single ALD Step
Electron Device Letters, IEEE

Si nanowire memory
12th IEEE Conference (IEEE-Nano)

ZnO based charge trapping memory with embedded nanoparticles
12th IEEE Conference (IEEE-Nano)

Zinc-oxide charge trapping memory cell with ultra-thin chromium-oxide trapping layer
AIP advances

An Electro-Dip-Coating Technique for Deposition of Metallic Nanoparticles over Silicon
MRS 2013 Fall Meeting

ZnO Charge Trapping Memory Cell with Ultra-Thin Chromium Oxide Trapping Layer
MRS 2014 Spring Meeting

Memory effect by charging of ultra-small 2-nm laser-synthesized solution processable Si-nanoparticles embedded in Si/Al₂O₃/SiO₂ structure
Phys. Status Solidi A

Optimization of Al-doped ZnO films for flexible TFTs and piezoelectric sensors
2017FLEX Europe

Optimization of Piezoresponse in ALD Al Doped ZnO Thin Films on Flexible Substrates for IoT Related Sensing Applications
IEEE Nanotechnology Materials and Devices Conference 2017

Modeling of InAs/GaAs Quantum Dot Solar Cells
2013 European Modelling Symposium

Key Skills

Proficient and *familiar* with a vast array of skills, concepts and technologies:

Thin Film Deposition (ALD, CVD, PVD)	NVMs	ZnO 1D & 2D structures	Photonics
Lithography (RIE, EBL, CMP)	TFTs	Piezoelectric Sensors	VHDL & Embedded Systems
Microscopy (SEM, AFM, TEM)	FEOL & BEOL	Flexible Electronics	MEMS
Spectroscopy (XPS, XRD, EDS, WDS)	TCAD	Digital Communication Systems	Signal Processing