

Jeffrey S. Corgan

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Profile

A process development specialist desiring to leverage experience in project management, materials processing, and fabrication equipment to explore opportunities for professional growth. Combines a technical mindset with a focus on improved efficiency to better end-products via experimentation, statistical process control, and refined quality standards.

Professional Experience

Jun. 2012 - **Process Engineer**
Present [Kulite Semiconductor Products, Inc.](#) | Leonia, NJ

Staff engineer deployed across multiple levels of MEMS fabrication and R&D.

- Full resume available upon request.

Jun. 2011 - **Intern - Research & Development**
Jun. 2012 [Kulite Semiconductor Products, Inc.](#) | Leonia, NJ

- Primary research centered on studying and testing experimental metallurgical systems.
- Full resume available upon request.

Jan. 2009 - **Undergraduate Research Assistant**
Oct. 2010 [Rutgers University - Laser Materials Interactions Lab](#) | Camden, NJ

- Primary research centered on Matrix-assisted pulsed laser evaporation (MAPLE): creating polymer thin-films using Er:YAG lasers.
- Full resume available upon request.

Education

May 2012 **Master of Science - Materials Science and Engineering**
[New Jersey Institute of Technology](#) | Newark, NJ

- Sep. 2010 - May 2011: Workshop Facilitator - Department of Physics

May 2010 **Bachelor of Arts - Physics**
[Rutgers University](#) | Camden, NJ

- Award Recipient: *Margaret Marsh Undergraduate Research Award* (2010)
- Part-Time Lecturer: Department of Physics (Jan. - May 2010)
- Assistant Laboratory Instructor: Department of Physics (Sep. 2007 - May 2010)

Skills

Software	Windows Oses, Linux Oses, office suites (Microsoft, LibreOffice), GIMP (graphics & data analysis), Excel (data analysis, DB connections, complex functions and forms), HTML/CSS, R (R-Studio), parsing of programming languages (BASIC, Python, et al.)
Metrology	AFM (Asylum Research, Veeco), stylus profilometry (Bruker Dektak XT), bright/dark field microscopy, IR imaging, FTIR spectroscopy (Perkin Elmer), probing stations (Lucas-Sigmatone, Rucker-Kolls, Electroglas)
Materials Processing	3D printing (PLA and ABS plastic), sputter metal deposition (MRC 943, Perkin-Elmer 4400), solid-state lasers (ESC Derma 20, Control Laser 510, NewWave EZ Laze), silicon and glass wafer handling, furnace processing (annealing)

Publications

- Nov. 2011 **Matrix-assisted pulsed laser deposition of croconic acid, a diprotic organic ferroelectric**
[App. Phys A: Mater. Sci. Process. - 105: 635. / Springer](#) | DOI: 10.1007/s00339-011-6626-3
Authors: S. M. O'Malley, Sun Yong Yi, [and 7 others including Jeffrey Corgan]
- Oct. 2010 **Laser processing of poly(methyl methacrylate) Lambertian diffusers**
[Applied Surface Science - 257: 22. / Elsevier](#) | DOI: 10.1016/j.apsusc.2010.06.015
Authors: Daniel M. Bubb, SunYong Yi, [and 3 others including Jeffrey Corgan]
- Aug. 2010 **An experimental investigation of inhomogeneities in resonant infrared matrix-assisted pulsed laser deposited thin polymer films**
[App. Phys. A: Mater. Sci. Process. - 100: 523. / Springer](#) | DOI: 10.1007/s00339-010-5854-2
Authors: Daniel M. Bubb, Jeff Corgan, [and 6 others]
- May 2010 **Laser vaporization of trace explosives for enhanced non-contact detection**
[Proc. of SPIE - 7665 - CBRNE Sensing XI / SPIE](#) | DOI: 10.11117/12.850385
Authors: Robert Furstenberg, Michael Papantonakis, [and 4 others including Jeffrey Corgan]

Full resume and references available upon request.