



**Kevin Hagedorn** · 3rd

Laser Processing and Nanotechnology Problem Solver

Ann Arbor, Michigan, United States · 228 connections ·

[Contact info](#)

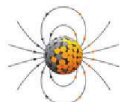


Life Magnetics



University of Michigan

## Experience



### Founder

Life Magnetics

2013 – Present · 8 yrs

Ann Arbor, MI

Many pathogens are identified using RNA analysis. Most viruses are RNA. Yet, RNA is more difficult to analyze than other biomolecules because it is easily destroyed. Life Magnetics, Inc. has developed a carbon based coating which can be applied to nearly any surface which separates single stranded from double stranded nucleic acids in a few seconds with near perfect selectivity. The company has leveraged this technology to develop an award winning RNA extraction product for life science research and safety testing. The company is looking to move into medical testing in 2018.



RNA extracted



Carbon Coated  
Magnetic Beads



### Optical Engineer/Staff Scientist

SurClean, Inc.

Dec 2014 – Jun 2015 · 7 mos

Ann Arbor, MI

SurClean is reducing the cost of paint and coating removal by developing an automated laser coating removal process. Compared to traditional coating removal methods like media blasting and solvent etching, laser coating removal creates less waste, is more precise in removing individual coating layers, and is safer for workers. The process is entirely ...see more



### Staff Scientist

IMRA America, Inc.

2010 – 2013 · 3 yrs

Ann Arbor, MI

Developed applications for ultrafast laser micromachining, including scribing of solar cell interconnects.

Prepared noble metal nanoparticles and evaluated their performance detecting bio ...see more

## Education



### University of Michigan

Doctor of Philosophy (PhD), Materials Chemistry

2005 – 2010

Analyzed experimental data and numerical simulations to predict efficiency of nanostructured photoelectrodes as a function of minority carrier diffusion length, surface recombination velocity, and dopant density

Reported the first example of macroporous p-type gallium phosphide and investigated its ability to perform photosynthetic water splitting

Built a time-resolved microwave system to quantify minority carrier recombination rates from which semiconductor surface defect concentration can be inferred

Evaluated the photoresponses and catalytic efficiency of photoelectrodes at liquid and metal interfaces using Mott-Schottky (C-V) and current voltage (J-V) measurements



## University of Michigan

Bachelor's Degree, Honors Chemistry with a dual degree in Biochemistry, 3.87 GPA  
2001 – 2005

Activities and Societies: Alpha Chi Sigma

Angell Scholar (2003-2004) - Awarded for receiving all A/A- grades for 2 or more consecutive semesters

Merc Index Award (2005) - Awarded to outstanding undergraduate researchers in chemistry

