

## M. Jeremy Amdur, Ph.D.

Technology Specialist

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### EDUCATION

Ph.D. Chemistry, Massachusetts  
Institute of Technology  
B.S. *magna cum laude*, Rensselaer  
Polytechnic Institute

### PRACTICE AREAS

Corporate & Investment Diligence  
Licensing & Transactions  
Patent Opinions  
Patent Prosecution  
Strategic Counseling  
Trade Secrets  
Trademarks

### TECHNOLOGIES

Chemistry & Materials Science  
Industrial Devices  
Life Sciences  
Medical Devices & Diagnostics

### OVERVIEW

Jeremy applies his background in synthetic chemistry, experimental physics, and quantum theory to assist clients in the drafting and prosecution of patents.

Jeremy's doctoral research focused on harnessing the strong interaction between electronic spins and matrix phonons to develop the next generation of quantum bits. Using organic and inorganic synthesis, he developed specifically functionalized transition metal coordination complexes with unique spin-phonon interactions. Jeremy demonstrated a strong dependence of the spin-phonon interaction on the three-dimensional structure of the molecule, indicating that planar structures performed significantly better than non-planar structures. This work highlighted the promise of surface-deposited molecular quantum bits for the next generation of quantum devices.

Jeremy is a co-author of research published in Chemical Science.