David Mackay

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**Objective**

* I am looking for a proofreading and editing freelancing role to improve the quality of manuscripts from various disciplines.
* I would do this by applying the skills I learned as a physics undergraduate and material science and engineering postgraduate student to understand and execute procedures.

**Work Experience**

**Contract Science Editor-Accdon LLC** Feb 2014–Current

* Edited over 200 academic manuscripts to improve their writing quality.
* Reviewed their scientific quality and provided comments to improve their manuscript.
* Ranks among the top two technical editors requested by authors.

**Material Science Proofreader-Enago** July 2015–Current

* Proofread over 1000 academic manuscripts to improve their writing quality.

**Material Science Editor-Cambridge Proofreading** March 2016–Current

* Edited over 300 academic manuscripts to ensure there are no grammatical errors.

**Masters in Material Science and Engineering**

Washington State UniversityJanuary 2012–May 2016

 Thesis: Nanostructured Tin Anodes for Lithium-ion Applications Cumulative GPA: 3.46

 **Lead masters student for the setup and maintaining of battery assembly and electroplating facilities**

* Learned battery control systems and electroplating procedures to fabricate tin nanoneedle anodes for Lithium ion batteries.
* Setup battery testing profiles and electroplating procedures to test the viability of the tin nanoneedle anodes and authored a manuscript in the Journal of Material Science regarding tin nanoneedle battery research and am on three patents on the same battery technology.
* Taught students that joined the lab how to fabricate the batteries and how to test them.

 **Lead Teaching assistant for mechanics and materials lab**

* Taught students how to perform fatigue, charpy, tensile, and torsion tests to determine mechanical properties of different materials.
* Taught labs, graded homework, and answered questions regarding course material as a teaching assistant for Electric and Magnetic Properties of Materials as well as Mechanics of materials lab.
* Established grading rubrics for the other TAs to follow to grade the labs.

**Education**

 **Masters in Material Science and Engineering**

Washington State UniversityMay 2016

 Thesis: Nanostructured tin anodes for lithium ion batteries Cumulative GPA: 3.46

 **Bachelor of Sciences** December 2011

Washington State University

Major: Physics Minor: Math Cumulative GPA: 3.43

**Journal Manuscripts**

 “Template-free electrochemical synthesis of tin nanostructures,” David T. Mackay, Matthew T. Janish, Uttara Sahaym, Paul G. Kotula, Katherine L. Jungjohann, C. Barry Carter, M. Grant Norton J. Mat. Sci. 49, 1476-1483(2014).

 “Lithiation of Tin Nanoneedles Investigated by in-situ TEM,” Matthew T. Janish, David T. Mackay, Yang Liu, Katherine L. Jungjohann, C. Barry Carter, and M. Grant Norton Microsc. Microanal. 20 (Suppl 3), 1978-1979 (2014).

 “Study of exciton dynamics in garnets by low temperature thermo-luminescence,” D. T. Mackay, C. R. Varney, J. Buscher and F. A. Selim J. Appl. Phys. 112 , 023522 (2012).

 “Strong visible and near infrared luminescence in undoped YAG single crystals,” C. R. Varney, S. M. Reda, D. T. Mackay, M. C. Rowe and F. A. Selim AIP Advances 1 , 042170 (2011).

 “Energy levels of exciton traps in yttrium aluminum garnet single crystals,” C. R. Varney, D. T. Mackay, A. Pratt, S. M. Reda and F. A. Selim J. Appl. Phys. 111 , 063505 (2012).

 “On the optical properties of undoped and rare-earth-doped yttrium aluminum garnet single crystals,” C. R. Varney, D. T. Mackay, S. M. Reda and F. A. Selim,, J. Physics D: Applied Physics 45, 015103, (2012).

**Conference Presentations**

“New-Generation Cathodes and Anodes: Understanding What Information in Reports Determine Viability to Enter Marketplace” 2015 Baltimore Battery Safety Conference

“New-Generation Cathodes and Anodes: Understanding What Information in Reports Determine Viability to Enter Marketplace” 2016 San Diego Battery Safety Conference

“New-Generation Cathodes and Anodes: Understanding What Information in Reports Determine Viability to Enter Marketplace” 2016 NASA Battery Conference

**Patents**

US-882732-01-US-REG-Tin Nanostructured Anodes for Lithium Batteries

US-882731-01-US-REG-Tin Nanostructured Anodes for Flexible Lithium Batteries

US-882730-01-US-REG-Nano-structured Alloy Anodes for Lithium Batteries