**Materials Research Engineer**

**Target Start Date:** As Soon As Possible

**About us**

Form Energy (formerly Baseload Renewables) is developing a new class of energy storage systems to make renewable energy the cheapest, easiest way to power the world year-round. We are looking for world-class engineers and scientists to join our technical team and help develop the core technologies into a world-changing product.

**Role Description**

We seek a Materials Research Engineer to investigate new materials and processing methods for long-duration energy storage systems. This is a hands-on role in which you will prepare, characterize, and test new energy-storing materials. The Materials Research Engineer will coordinate all characterization efforts using internal instruments, as well as managing relationships with external characterization contractors. This position will work closely with materials processing, performance testing, and prototype development engineers to improve sub-component performance, quality, and scientific understanding. Further, you will work with modeling specialists to define physical quantities for critical modeling studies. A successful candidate will have experience in experiment design, materials characterization, and root cause analysis.

**What You’ll Do**

* Generate materials concepts for entirely new kinds of energy storage systems, meeting stringent performance specifications
* Design, execute, and analyze experiments to evaluate the effectiveness of emergent materials
* Perform root cause failure analysis to understand and mitigate degradation and decay mechanisms
* Develop electrolyte formulation, including components, additives, etc., to meet target performance metrics
* Manage the characterization pipeline for energy-storing materials, from pristine samples to post-mortem analysis
* Sample preparation for in-house and external characterization efforts
* Analyze challenging, non-standard samples using SEM, EDS, and optical microscopy
* Interpret ex-situ characterization (i.e., SEM, EDS, ICP, XRD, BET, TGA, DSC) data and collaborate with external specialists and consultants to accelerate materials development
* Evaluate component-level performance using custom designed test apparatus and electronic test equipment
* Collaborate with prototyping team to implement rapid materials design changes
* Work with external vendors to qualify incoming products and develop materials specifications
* Create and author standard operating procedures for new, routine characterization efforts

**What We’re Looking For**

Qualifications

* BS (required) and MS (preferred) in Materials Science, Chemistry, Chemical Engineering or a related field
* 2 - 5 years of industrial research experience
* Experience operating a SEM and X-ray diffractometer
* Direct experience specifying experiment design, testing hypotheses, and interpreting results
* Ability to teach and mentor co-workers on new methods and practices
* Comfortable analyzing enormous datasets with scientific programming languages, such as MATLAB, Python, or Mathematica
* Aqueous inorganic electrolyte chemistry experience is a plus
* Experience with startups or hands-on personal projects also a plus

Characteristics

* Comfortable independently advancing experiments from conception through data analysis
* High attention to detail
* Excellent organizational, communication, and presentation skills a must!
* Hands-on approach to engineering problem solving
* Flexible working style: Can “wear many hats” and jump quickly between projects
* Able to work well in cross-disciplinary project teams and deliver results
* Enjoy the fast paced, results driven environment of a startup

To apply, Please send resumes to careers@formenergy.com