

Opportunity Title: ORNL Innovation Crossroads TCPoly Post-Master's Research Associate

Opportunity Reference Code: ORNL19-03-IEDP

Organization Oak Ridge National Laboratory (ORNL)

Reference Code ORNL19-03-IEDP

Description This Post-Master's Research Associate will work closely with TCPoly, a company within the Innovation Crossroads program at Oak Ridge National Laboratory, to fabricate and test thermally conductive polymer composites for additive manufacturing applications.

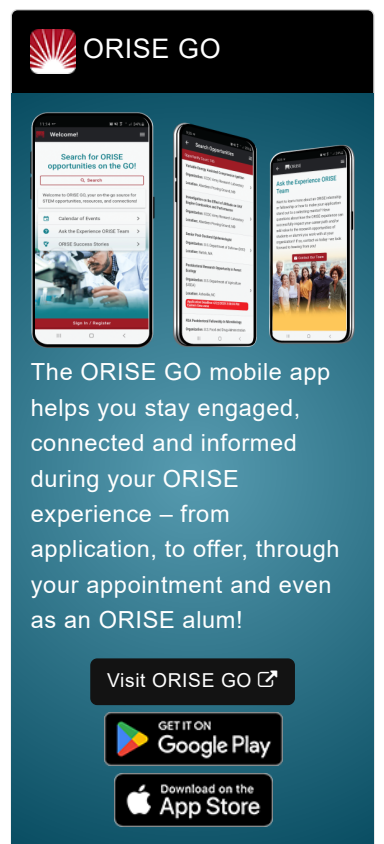
Major Duties/Responsibilities:

- Compound new formulations using a twin-screw extruder
- Extrude composite formulations into 3D printing filaments
- Use commercial FDM 3D printing to print samples for thermo-mechanical testing
- Print prototype products and perform thermal testing and analysis on performance
- Optimize print toolpaths to enhance properties and performance

- Qualifications**
- Master's degree in chemical, materials, mechanical, or systems engineering
 - Passion for energy, environmental sustainability, and advanced manufacturing technologies
 - Experience working in a hands-on experimental laboratory
 - Excellent written, oral, and presentation communication skills
 - Excellent critical-thinking skills and the ability to independently develop creative ideas
 - Ability to manage time wisely and map out experimental plans to meet deadlines
 - Demonstrated ability to contribute collaboratively to a team
 - Demonstrated ability to design engineered systems
 - Preferred experience with 3D printing, heat transfer, thermal simulation software, product development and polymer composite formulations

The ORNL Post-Master's Research Associates Program is administered by Oak Ridge Associated Universities through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education (ORISE).

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Master's Degree.
 - **Discipline(s):**
 - **Engineering** (4👁)



Opportunity Title: ORNL Innovation Crossroads TCPoly Post-Master's Research Associate

Opportunity Reference Code: ORNL19-03-IEDP

required employment notices.