Quantiam Technologies Inc., is one of Canada's leading private sector technology companies operating in Deep Tech in the Cleantech, Energy, Chemicals-Petrochemical and Defense sectors. Quantiam has amongst the best private sector R&D laboratories in Canada, working at the leading edge of Advanced Materials, Surface Science, Nanotechnology, Catalysis and Advanced Manufacturing with an annual R&D operating budget of ~$5M. We are looking for a highly motivated, hard-working, and energetic individual to join our team that is interested to help solve some of the world's greatest challenges through technology and innovation.

Position Title: **Research Professional / Senior Research Professional** – Research & Technology

Competition #: 7000-28

Compensation: **$80,000 - $110,000/yr, depending on experience**; a 40-hour work week; a highly comprehensive and competitive Benefits package; Group RRSP with matching Deferred Profit-Sharing Plan (DPSP), and a Performance-based Bonus Plan. Preferential equity participation in the parent or spinout companies is available and welcome.

Education: **Ph.D**. in Materials Science, Materials Engineering, Metallurgy.

Experience: 5+ years hands-on work experience. *[We will also consider new Ph.D. graduates]*

Closing Deadline: Until Filled

Brief Job Description:

- Support and as appropriate, lead R&D projects $250k/y to $1.5M/y, primarily in Advanced Materials and Advanced Manufacturing. Support other R&D projects as a materials/metallurgy expert.
- Manage technologists and junior scientist/engineers as part of project teams.
- Proficient with materials microstructural and performance characterization.
- Solid understanding/experience with key materials characterization tools that may include XRD, FE-SEM/EDS, AES/SAM, XPS, TGA/DSC, mechanical testing and extensive wear testing.
- Oversee Metallographic preparation of materials, coatings and surfaces for optical microscopy and electron microscopy.
- Comfortable undertaking autopsy and root cause analyses of materials and reporting.
- Experienced with high temperature materials and processes through to 1,200°C.
- Experience with severe materials degradation by wear and corrosion, and methods of mitigation.
- Experience with powder metallurgy, braze and high temperature coating can be an asset.
- Evaluate developmental materials constantly pushing the envelope on what is possible.
- Metallographic preparation of materials, coatings and surfaces for optical microscopy and electron microscopy.
- Operation of vacuum based high-temperature furnaces for materials processing and performance testing.
- Proactively collaborate with co-workers in our Research & Development and Trial Manufacturing teams.
- Ensure research meets industry, Intellectual Property protection and regulatory standards.

Technical Skills/Work Experience Required:

- **Technology and New Product Development:** A strong Advanced Materials training with direct experience; expertise in metallurgy would be greatly beneficial. Able to function from TRL1 through to TRL9 with a focus on TRL6-8.
- **Quality of Work:** Results driven. Must adhere to the highest standards of quality, accuracy, reliability, and safety. High level documentation.
- **Analytical & Critical Thinking:** Aptitude for solving complex, undefined problems under uncertainty.
- **Communication:** Exceptional Communication and presentation skills. Capacity to present complex technical data clearly to technical and non-technical stakeholders and executives. Strong fluency in English is required with excellent verbal and written communication skills.
- **Materials and Process Development:** Experience with heat treatment equipment (bulk and surface) with a strong understanding of materials, catalysts, coatings and surfaces across a range of service conditions.
- **Materials Characterization:** Extensive experience in microstructural, mechanical and performance characterization of materials.
- **Digital Tools:** Good digital proficiency; knowledge of major modeling software utilized in materials R&D; awareness or experience with emerging machine learning (ML)/AI tools. Strong skills with Microsoft Office software (Word, Excel, PowerPoint).
- Proper use of protective personal equipment, chemical safety and laboratory skills.

Behavioural Skills Required:

- **Strong Work Ethic:** Must have a strong work ethic, reliable punctuality and work attendance.
- **Strong Productivity and Prioritization Skills:** Plan and prioritize workload and use time effectively to advance projects.
- **Initiative and Motivation:** Must be a self-starter and be highly self-motivated, able to work efficiently and independently as well as in a team. Must have a positive '**can-do**' attitude.
- Able to accept constructive feedback professionally.
- **Problem Solving Skills:** Capable of logical, critical and strategic thinking to solve a challenge/problem.
- **Positive Attitude,** even keeled and patient under pressure. Positive attitude.
- **Customer Oriented:** You provide quality customer service to internal and external clients.
- **Mutual respect for your co-workers.**

We thank all applicants in advance for their interest. Please forward to Human Resources a CV and cover letter as a Word or a PDF document including competition number to e-mail: careers@quantiam.com. Receipt of a CV will be acknowledged by e-mail.