



Indigenous.Link

Canada's fastest growing Indigenous career portal, Careers.Indigenous.Link is pleased to introduce a new approach to job searching for Indigenous Job Seekers of Canada. Careers.Indigenous.Link brings simplicity, value, and functionality to the world of Canadian online job boards.

Through our partnership with Indigenous.Links Diversity Recruitment Program, we post jobs for Canada's largest corporations and government departments. With our vertical job search engine technology, Indigenous Job Seekers can search thousands of Indigenous-specific jobs in just about every industry, city, province and postal code.

Careers.Indigenous.Link offers the hottest job listings from some of the nation's top employers, and we will continue to add services and enhance functionality ensuring a more effective job search. For example, during a search, job seekers have the ability to roll over any job listing and read a brief description of the position to determine if the job is exactly what they're searching for. This practical feature allows job seekers to only research jobs relevant to their search. By including elements like this, Careers.Indigenous.Link can help reduce the time it takes to find and apply for the best, available jobs.

The team behind Indigenous.Link is dedicated to connecting Indigenous Peoples of Canada with great jobs along with the most time and cost-effective, career-advancing resources. It is our mission to develop and maintain a website where people can go to work!

Contact us to find out more about how to become a Site Sponsor.

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Job Board Posting



Careers.Indigenous.Link

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RA, Aerosol And Gas Metrology / AR, Metrologie Des Aerosols Et Des Gaz

Job ID	9D-3B-52-FD-92-29	
Web Address	https://careers.indigenous.link/viewjob?jobname=9D-3B-52-FD-92-29	
Company	National Research Council Canada	
Location	Ottawa, Ontario	
Date Posted	From: 2023-08-29	To: 2023-09-26
Job	Type: Full-time	Category: Engineering
Job Salary	From \$74,230 To \$103,093 Per Annum.	
Languages	English	

Description

Help bring research to life and drive your career forward with the National Research Council of Canada (NRC), Canada's largest research and technology organization.

We are looking for 3 Research Associates in early-career for the Aerosol and Gas Metrology Team to support our Metrology Research Centre. Each Research Associate (RA) would be someone who shares our core values of Integrity, Excellence, Respect and Creativity.

The selected candidates will work on research related to the optical characterization of aerosols or gases. The selected candidates will conduct research independently, while gaining hands-on experience in aerosol and gas characterization with the support of researchers in a larger team. The research team has a wide spectrum of expertise in the emerging fields of aerosol science, climate science, gas characterization, spectroscopy, and metrology. The project is expected to address emerging challenges on the climate, a priority topic at NRC. There is a focus on short lived climate forcers (including aerosols and methane, among other gases), which are significant contributors to uncertainties that limit our understanding of climate change. The incumbent will work collaboratively with NRC researchers, academics, and industry partners to develop reliable diagnostic measurements in two streams:

Stream 1: A new optical instrument capable of simultaneously measuring aerosol light absorption and scattering;

Stream 2: An optical instrument capable of characterizing concentrations of multiple gaseous species, including carbon dioxide, carbon monoxide and methane, with high precision and accuracy.

The selected candidates are expected to work closely with the research team and produce refereed publications, technical reports, and/or patents (if applicable) as the project progresses.

Contribuez a la realisation de travaux de recherche strategiques et poursuivez une carriere prometteuse au Conseil national de recherches du Canada (CNRC), la plus grande organisation de recherche et de technologie au Canada.

Nous souhaitons embaucher 3 attaches ou attachees de recherche en debut de carriere pour

l'équipe de la Metrologie des aerosols et des gaz en vue de soutenir le Centre de recherche en Metrologie. Les candidats choisis doivent partager nos valeurs fondamentales relatives a l'integrite, a l'excellence, au respect et a la creativite.

Les personnes retenues travailleront sur des recherches liees a la caracterisation optique des aerosols ou des gaz. Elles meneront leurs recherches de facon independante, tout en acquerant une experience pratique de la caracterisation des aerosols et des gaz, avec le soutien des chercheurs d'une equipe plus importante. L'equipe de recherche possede un large eventail de competences dans les domaines emergents de l'aerosologie, de la climatologie, de la caracterisation des gaz, de la spectroscopie et de la metrologie. Le projet devrait permettre de relever les nouveaux defis lies au climat, un sujet prioritaire pour le CNRC. On cible les polluants climatiques de courte duree de vie (y compris les aerosols et le methane, entre autres gaz) qui contribuent de maniere considerable aux incertitudes qui limitent notre comprehension des changements climatiques. En collaboration avec des chercheurs du CNRC, des universitaires et des partenaires de l'industrie, les personnes retenues mettront au point des mesures de diagnostic fiables pour deux volets:

Volet 1 : Un nouvel instrument optique capable de mesurer simultanement l'absorption et la diffusion de la lumiere par les aerosols; et

Volet 2 : Un instrument optique capable de caracteriser les concentrations de plusieurs especes gazeuses, dont le dioxyde de carbone, le monoxyde de carbone et le methane, avec une grande precision et une grande exactitude.

Les personnes retenues devront travailler etroitement avec l'equipe de recherche sur des publications a comite de lecture, des rapports techniques et/ou des brevets (le cas echeant) au fur et a mesure de l'avancement du projet.

Experience

Experience in optical diagnostic methods for measurements of aerosols or gases;

Experience in optical instrument design, system integration, troubleshooting, testing, and performance evaluation;

Experience with safe operation of lasers, compressed gases, and handling of delicate optical components and electrostatic-sensitive devices;

Practical experience working independently and within a team on joint projects and achieving recognized and quantifiable results;

Experience in spectroscopy or interferometry is considered an asset;

Experience in modelling light-aerosol interactions is considered an asset.

Experience des methodes de diagnostic optique pour les mesures d'aerosols ou de gaz;

Experience de la conception d'instruments d'optique, de l'integration de systemes, du depannage, des essais et de l'evaluation du rendement;

Experience de l'utilisation en toute securite de lasers et de gaz comprimes et de la manipulation de composants optiques delicats et de dispositifs sensibles aux charges electrostatiques;

Experience pratique du travail autonome et en equipe sur des projets communs ainsi que de l'obtention de resultats reconnus et quantifiables;

Une experience en spectroscopie ou en interferometrie est consideree comme un atout;

Une experience dans la modelisation des interactions entre la lumiere et les aerosols est consideree comme un atout.

Education Requirements

As part of the RA Program you must have received your PhD in Physics, Chemistry, Engineering Physics, Mechanical Engineering, or Electrical Engineering within the last five years or you expect to receive the degree within the next six months. The candidate must have a focus on optical techniques for characterization of aerosols or gases and development of methods thereof, as demonstrated by thesis work and/or publications.

Dans le cadre du programme d'Agent de recherches, vous devez avoir reçu votre doctorat en physique, en chimie, en génie physique, en génie mécanique ou génie électrique dans les 5 dernières années ou vous vous attendez à recevoir le doctorat dans les 6 prochains mois. La personne retenue doit se concentrer sur les techniques optiques pour la caractérisation des aérosols ou des gaz et l'élaboration des méthodes correspondantes, comme le démontrent les travaux de thèse ou les publications.

Essential Skills

Stream 1 - Aerosol metrology

Proven ability to conduct research in characterization of aerosol properties, involving novel methods development, as demonstrated by peer-reviewed publications;

Advanced knowledge of optical aerosol instrumentation and components;

Practical knowledge of light-aerosol interactions;

Stream 2 - Gas metrology

Practical knowledge of molecular absorption spectra and spectroscopic techniques, as demonstrated by peer-reviewed publications, prior research or thesis work;

Demonstrated ability to design, fabricate, integrate and implement free-space or integrated photonic-based systems;

Practical knowledge and ability with fiber optics and fiber components;

Volet 1 - Metrologie des aérosols

Capacité reconnue à mener des recherches sur la caractérisation des propriétés des aérosols, y compris l'élaboration de nouvelles méthodes, comme le démontrent des publications évaluées par des pairs;

Connaissance approfondie des instruments et des composants optiques pour les aérosols;

Connaissance pratique des interactions entre la lumière et les aérosols;

Volet 2 - Metrologie des gaz

Connaissance pratique des spectres d'absorption moléculaire et des techniques spectroscopiques démontrée par des publications évaluées par des pairs, des recherches antérieures ou des travaux de thèse;

Capacité manifeste à concevoir, fabriquer, intégrer et mettre en œuvre des systèmes photoniques intégrés ou sans fil;

Connaissance pratique et capacité avec des fibres optiques et des composants à fibres;

How to Apply

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