

## POSITION DESCRIPTION

<b>Position Title:</b>	CAS Irradiations Team Lead
<b>Cluster / Business Unit / Division</b>	Nuclear Science and Technology / Centre for Accelerator Science
<b>Section or Unit:</b>	Irradiations
<b>Classification:</b>	Band 7/ Band 8
<b>Job Family:</b>	Science
<b>Position Description Number:</b>	PD-2579
<b>Work Contract Type:</b>	Science/Manager
<b>STEMM/NON-STEMM:</b>	STEMM
<b>STEMM CATEGORY:</b>	Science

### POSITION PURPOSE

The CAS Irradiations Team Lead is responsible for the leadership, delivery, and development of CAS's Irradiation capabilities for radiation testing, damage, and radiobiology applications. This includes oversight of workflows, user program delivery and engagement, and research leadership aligned with national priorities and scientific excellence.

The role manages day-to-day delivery, ensures safety and compliance, supports staff development, and drives method innovation. It works collaboratively with the other CAS capability leads to integrate Irradiations capabilities into broader CAS programs and to meet research, operational, and strategic objectives.

### ORGANISATIONAL ENVIRONMENT

ANSTO leverages great science to deliver big outcomes. We partner with scientists and engineers and apply new technologies to provide real-world benefits. Our work improves human health, saves lives, builds our industries and protects the environment. ANSTO is the home of Australia's most significant landmark and national infrastructure for research. Thousands of scientists from industry and academia benefit from gaining access to state-of-the-art instruments every year.

Nuclear Science and Technology (NST) incorporate ANSTO's research, innovation, landmark research infrastructure, and associated platforms and capabilities. NST conducts research and development in relation to nuclear science and technology and connects people, transfers knowledge, and provides nuclear-based products and services for the benefit of Australia.

The Centre for Accelerator Science (CAS) is a multi-disciplinary team of scientists, technicians and engineers supporting academic and industry users across Australia and the world with a suite of accelerator instrumentation for ultra-sensitive measurement, analysis and irradiation applications. As a user facility open to all, supported by the National Collaborative Research Infrastructure Strategy, CAS informs policy, provides critical services for IAEA, and enables discovery and innovation in areas such as environment, climate and health sciences, space technologies, advanced materials for energy and quantum, and cultural heritage.

CAS operates four tandem particle accelerators and a wide range of advanced (and often bespoke, inhouse designed) engineering systems, scientific instrumentation, equipment, and technologies across twelve beamlines for accelerator science applications and twelve chemistry laboratories for specialised sample processing. CAS offers accelerator mass spectrometry, sample preparation, ion beam analysis, ion beam implantation, and ion beam irradiation - together in one centre - backed by decades of accumulated experience in accelerator science and operations.

The CAS Irradiations capability provides precision irradiation with broad beams and micro-probe beams of protons and heavy ions for radiation testing, radiation damage and radiobiology studies. The capability can provide irradiation in vacuum or in air, with high or low linear-energy transfer, and can accommodate a range of sample types including electronics, advanced materials and devices, and biological samples. The Irradiations capability suite includes physics modelling and support for experiment preparation, dosimetry, interpretation, and training for early career researchers and students, for research and industry applications in space, health, and defence sectors.

## **ACCOUNTABILITIES & RESPONSIBILITIES**

### **Key Accountabilities**

#### **Leadership and Management (Band 7)**

- Lead and manage the provision of CAS Irradiations capability to deliver safe, compliant, efficient, high-quality, cost-effective user-service for high-impact research and industry outcomes.
- Ensure best practice operational and safety management of CAS Irradiations resources and user program to deliver on agreed KPIs, metrics, contract and grant commitments, and milestones within the CAS Business Plan and NCRIS Activity Plans, in pursuit of CAS goals and supporting NST strategies.
- Lead the Irradiations team to achieve excellence by inspiring an inclusive and innovative environment that promotes psychological safety and builds a learning and growth culture.
- Formulate and prioritise plans and objectives that translate the CAS strategy into measurable deliverables for Irradiations science operations.
- Monitor team output against user delivery expectations and ensure timely, high-quality data reporting and engagement across research and commercial users.
- Produce content for business plans and report on Irradiation team performance against targets and objectives, devise new ideas and strategies for growth including for streamlining and workforce development, secure collaboration and external funding opportunities.
- Develop and manage Irradiations team outreach activities to engage new users, collaborators, and research partnerships, and to promote the impact of CAS to diverse stakeholder audiences.

#### **Senior Accelerator Scientist (Band 7)**

- Utilise extensive knowledge and expertise to operate accelerators for Irradiations applications, provide advanced scientific and technical support, advice, and training to national and international accelerator science users, including the making of scientific and technical decisions, ensuring optimal outcome from allocated accelerator science access and an excellent user service.
- Contribute to CAS-wide strategy and planning through collaboration with other functional leads to ensure the integration of irradiation capabilities into platform-wide delivery.
- Reduce and interpret user data, offering guidance on data processing and further analytical methods to enhance scientific results
- Liaise with the Australian and international scientific community to expand CAS's user base, ensuring maximum usage of accelerator equipment, fostering a community of collaborators and users, and supporting potential revenue streams;
- Maintain and apply knowledge of international best practice and technological developments to ensure CAS Irradiations capabilities are improved and upgraded to remain at the state-of-the-art and internationally competitive. Develop the capability to recognise and act on opportunities emerging from a global view of techniques enabled by CAS facilities
- Coach and mentor researchers, post-doctoral fellows, and students (as opportunities arise) in both their use of accelerator techniques and broader research endeavours. Collaborate with colleagues within the CAS Science Group and across ANSTO, sharing scientific expertise and contributing to the research culture within CAS, NST, and ANSTO

- Initiate and conduct leading-edge research of international standard, expanding the capacity and understanding of accelerator techniques at CAS and enhancing CAS's scientific visibility through publication in leading journals. Deliver research and development aligned with the needs of users and stakeholders;

**Principal Accelerator Scientist (Band 8), performing the above at internationally recognised expert level**

- Lead long-term strategy for Irradiations science program and capability investment, and design capability developments aligned to stakeholder needs, including staff development and technology/methodology advancement, that boost productivity to meet increasing demand for CAS Irradiations capabilities and ensures CAS remains internationally competitive.
- As an internationally recognised expert with extensive experience in Irradiations accelerator science, undertake and support novel collaborative research aligned with the strategic goals of CAS and ANSTO. Develop novel analytical techniques, capabilities and research applications that advance CAS capabilities, support and meet the needs of the CAS user community, and sustain excellence in our research impact and outcomes
- Identify and negotiate opportunities for collaborations, new users, and partnerships with mutual benefit that support the CAS focus areas, the CAS decadal plan, and the NST and NCRIS strategic imperatives
- Demonstrate research leadership, host national and international visitors, and provide training and knowledge transfer on specific techniques through supervision of PhD student and early-career researcher projects
- Represent ANSTO and CAS within global forums and use extensive research networks to foster value-add partnerships with local and global communities, to inform strategic decisions and planning for advancements in Irradiations science and instrumentation
- Undertake additional duties as required and during period of leave of other staff.

**Decision Making**

- The ANSTO values, organisational corporate plan, operational excellence program, NST strategy and CAS business plan provide the context for the position.
- Assess desired outcomes and provide advice to internal and external stakeholders and collaborators on the feasibility and methodology for CAS Irradiation applications to their research projects
- The position works within a framework of legislation, ANSTO policies, professional standards and resource parameters. Within this framework, the position will be provided with the parameters in which to operate the facilities including decisions pertaining to project planning and resource allocation. The position has independence for decision making on methods and approaches for project planning and allocation of resources within CAS Irradiation and is fully accountable for delivering outcomes within agreed timeframes and budgets.
- The position is fully accountable for the accuracy, integrity and quality of the content of advice provided to users, staff, and CAS Director and is required to ensure that decisions are based on sound evidence.
- Determine work priorities within the context of agreed work plans and schedules and consult with the Director on complex, sensitive and major issues that have a significant impact on the facility operations.
- The position will be provided a budget developed by management within the constraints of which the position is expected to operate. The position will have authority to assign and approve expenditure within limits designated by the delegations manual and approve work hours and staff leave requests.

- The levels of authority delegated to this position are those approved and issued by the Chief Executive Officer. All delegations will be in line with the ANSTO Delegation Manual AS-1682 (as amended or replaced).
- The role also contributes to shared decision-making with other CAS functional team leaders to coordinate shared resource use, scheduling, and cross-capability planning.

### Key Challenges

- Sustaining excellence in CAS Irradiations capabilities and services as a world-class facility, identifying and prioritising opportunities to advance capabilities, and maintaining relationships within the community to engage new users and collaborators.
- Developing new methods and research in the relevant field. Keeping abreast of recent and emerging developments in field, ensuring continual improvement and implementation of best practise.
- Maintaining a research leadership profile and expertise
- Delivering results and outcomes to the required standards and timeframes, given the need to be agile and responsive to opportunities, and adapt in an often changing and unpredictable environment.
- Understanding the objectives of a wide range of user research projects to ensure the provision of expert advice to facilitate successful project outcomes, from sample collection, analysis, data interpretation to the preparation of manuscripts for journal publications.
- Performing method improvement and capability development in short or changing timeframes, to ensure maintenance of world leading capabilities of the facility.
- Balancing delivery expectations, development work, and staff capability-building in a resource-constrained and technically complex environment.

### KEY RELATIONSHIPS

Who	Purpose
<b>Internal</b>	
CAS Director (Line Manager)	<ul style="list-style-type: none"> <li>• Receive direction and guidance</li> <li>• Provide regular updates on key tasks, issues &amp; priorities</li> <li>• Provide expert, authoritative and evidence-based advice</li> <li>• Support and implement staff engagement and quality recruitment</li> <li>• Negotiate and report on budgets, financial performance and resources consistent with objectives, plans, targets and goals</li> <li>• Staff performance (APEA review of staff) and attendance and instruction on dealing with staff issues or problems</li> <li>• Recommend and gain endorsement for improvement or development plans and goals and other initiatives</li> </ul>
CAS Head of Operations	<ul style="list-style-type: none"> <li>• Ensure safe and compliant operations within Irradiation sample preparation laboratories (Biology, Chemistry and Electronics) and accelerator facilities</li> <li>• Ensure compliance with safety and quality systems and applicable legislation and regulations</li> <li>• Negotiate resourcing for maintenance and development of equipment, laboratories and capabilities</li> <li>• Provide expert knowledge and input for capital development plans and asset management</li> </ul>
CAS Management Team (Peers)	<ul style="list-style-type: none"> <li>• Support team members and work collaboratively to contribute to achieving outcomes</li> <li>• Contribute to CAS decision making processes, planning and goals</li> <li>• Collaborate and share accountability</li> <li>• Negotiate and resolve conflicts</li> </ul>

CAS Irradiations team scientists (Direct Reports)	<ul style="list-style-type: none"> <li>• Provide management, guidance and support</li> <li>• Provide coaching, career counselling, mentoring, supervision, instruction, direction, support, recognition, training, and performance and attendance monitoring &amp; review.</li> <li>• Communicate work plans and activities and monitor outputs.</li> <li>• Monitor trends, performance and progress against the operational plans and communicate adjustments to work priorities which may be required to ensure delivery against the plan</li> </ul>
CAS Head of AMS and CAS Team Leaders	<ul style="list-style-type: none"> <li>• Optimise shared resources, coordinate scheduling, and deliver integrated accelerator science capabilities.</li> <li>• Contribute to group discussions, decision making processes and planning. Participate in meetings, share information and provide input on issues</li> <li>• Collaborate and share accountability</li> <li>• Negotiate and resolve scheduling or lab access conflicts</li> </ul>
NST staff (scientists, researchers, post-docs) and staff across ANSTO organisation	<ul style="list-style-type: none"> <li>• Develop and maintain effective working relationships and open channels of communication</li> <li>• Understand user requirements and desired outcomes</li> <li>• Provide expert advice, analysis and training</li> <li>• Contribute to the preparation of manuscripts for journal publications</li> <li>• Support organisation-wide initiatives, strategic projects, and workgroups</li> </ul>
<b>External</b>	
Facility users and collaborators from Universities, Industry, National and International Research organisations.	<ul style="list-style-type: none"> <li>• Ensure laboratory and accelerator availability within appropriate timescales, co-ordinate usage</li> <li>• Ensure CAS Irradiation science capabilities are fit for purpose and responsive to both academic and industry user sector needs in areas such as space, radiation tolerance and health, and meeting user needs</li> <li>• Provide expert advice, analysis, training, guidance and supervision</li> <li>• Build and maintain relationships and partnerships</li> <li>• Assess competence to undertake activities within laboratory/s</li> <li>• Understand user requirements and desired outcomes</li> <li>• Contribute to the preparation of manuscripts for journal publications</li> </ul>
Suppliers	<ul style="list-style-type: none"> <li>• Negotiate specifications and costs for procurement and contracts for service and delivery schedules</li> </ul>

## POSITION DIMENSIONS

Staff Data	
Reporting Line	Reports to the Director, CAS
Direct Reports	2 x Accelerator Scientists
Indirect Reports	Nil
Financial Data (2025/2026)	
Commercial Revenue / NCRIS Grants	\$0.7M
Operating Budget	\$50k

Staffing Budget	\$0.3M
Capital Budget	\$50k
Assets	

### Special / Physical Requirements

Location:	Lucas Heights Working in different areas of designated site/campus as needed
Travel:	May be required travel to ANSTO sites from time to time Infrequent travel both internationally and nationally
Physical:	Office based physical requirements (sitting, standing, minimal manual handling, movement around office and site, extended hours working at computer) Laboratory facility physical requirements ((lifting, standing for long periods, operating machinery, equipment) Public speaking Wearing personal protective equipment for the handling of hazardous materials
Radiation areas:	May be required to work in radiation areas under tightly regulated conditions Perform duties with and in an area where hazardous chemicals or materials are handled under tightly controlled safety conditions
Hours:	Willingness to work extended and varied hours based on operational requirements After hours work may be required for short and infrequent periods
Clearance requirements:	Satisfy ANSTO Security and Medical clearance requirements Maybe required to obtain and maintain appropriate federal government clearance

### Workplace Health & Safety

Specific role/s as specified in <u>AP- 2362</u> of the ANSTO WHS Management System	All Workers Managers / Leaders / Supervisors Other specialised roles identified within the guideline a position holder may be allocated to in the course of their duties
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## ORGANISATIONAL CHART

On file

## KNOWLEDGE, SKILLS AND EXPERIENCE (Band 7)

1. PhD in relevant field of science (physics, materials, engineering, radiobiology) or equivalent tertiary qualification coupled with extensive experience in scientific field.
2. Experience in the provision of support to achieve business and operational strategy outcomes.
3. Experience in the provision of financial management, forecasting, planning (both financial and workforce/succession) and cost control.
4. Demonstrated ability to provide expert advice to users, researchers and commercial clients.
5. Experience in managing accelerator operations in a user-based research environment to achieve scientific excellence, desired organisational outcomes and achieving optimal work performance.
6. Demonstrated experience in mentoring and supervising staff and visiting scientists and allocating resources effectively to achieve outcomes in a variety of circumstances.
7. Demonstrated ability to facilitate training in specialised analytical and experimental techniques.

8. Strong interpersonal and communication skills with the ability to interact and communicate with a varied and multidiscipline audience and to develop and maintain productive working relationships.
9. Extensive experience operating within laboratory quality, safety and regulatory requirements (WHS, radiation safety, ARPANSA regulations, quality systems).
10. Demonstrated ability to represent the organisation at national and international forums as an expert in a relevant scientific field.

**In addition to the required knowledge skills and experience above the Band 8 level will require:**

1. Internationally recognised expert and leader in ion beam irradiation science, including radiobiology, electronics, or space testing applications, with a strong publication record and research leadership profile
2. Demonstrated leadership of multidisciplinary programs or teams delivering advanced irradiation services, research outcomes, capability development and innovation.
3. Experience in aligning irradiation capabilities with government/industry priorities, including defence, space, or health.
4. Proven track record of attracting external funding and managing strategic partnerships to grow CAS irradiation capability, aligned to NCRIS and CAS priorities.
5. Recognised role in shaping policy, infrastructure investment, or disciplinary research agendas through external committee or working group participation.

**VERIFICATION**

This section verifies that the line manager and appropriate senior manager/executive confirm that this is a true and accurate reflection of the position.

<b>Line Manager</b>		<b>Delegated Authority</b>	
Name:	Ceri Brenner	Name:	Andrew Peele
Title:	Director, CAS	Title:	Group Executive, Nuclear Science and Technology
Signature:		Signature:	
Date:		Date:	

**CAS Irradiations Team Lead - Linked Role (PD-2579)****Band 7 to Band 8 Transition Checklist**

Name:	
Commencement Date:	
Assessment Date:	

**Note: Full written submission demonstrating and justifying how the employee meets the requirements must also be attached.**

Requirements for transition	Met Criteria
Recognised as a national or international leader in radiation testing, radiobiology, or space irradiation research.	Yes No
Leads strategic development of irradiation capabilities aligned with sector needs (e.g., defence, health, space).	Yes No
Secures and delivers on external partnerships or grants that expand CAS irradiation impact.	Yes No
Contributes to infrastructure and capability investment proposals or working groups.	Yes No
Mentors staff and students in scientific, operational, or capability development pathways.	Yes No
Represents CAS and ANSTO in high-level scientific or strategic forums.	Yes No
Drives integration of irradiations capability into CAS-wide strategic programs and planning.	Yes No
Demonstrates sustained leadership across research delivery, strategic engagement, and capability impact.	Yes No

**Manager Recommendation:**

I have reviewed the employee's competence in accordance with Linked Role PD-2579 and certify that the employee meets all requirements for transition and recommend transition from Band 7 to Band 8 be endorsed.

Manager Name:	
Signature:	
Date:	

**General Manager Assessment**

I have assessed the submission and confirm that the employee meets all requirements for transition from Band 7 to Band 8.

General Manager Name:	
Signature:	
Date:	