

William (Jingquan), YU

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Australian Citizen

Professional Profile

“An exceptionally professional, outperformed and accomplished previous Technical Supervisor and Polymer Consulting Expert with Chem. Eng. qualifications, over 7 years of traceable industrial and educational experience in various polymer related projects and consultancies with high-tier connections and established reputations in industry.”

With an in-depth knowledge and understanding of properties in most non-metallic materials (from thermoplastic and thermoset polymers to elastomers and composites), relevant international standards, I was able to propose and design the optimal testing strategies in consultations, lead tailored research team and liaise with external stakeholders for deliverables exceeding clients' expectations. In addition, my engineering background and intuition associated with outstanding problem solving and analytical thinking skills enabled me to professionally manage wide range of instrumentations. Moreover, intensive, and diverse consultancies guaranteed substantial exposures to the most cutting-edge technologies, inventions as well as latest international and local standards across bespoke/interdisciplinary regions.

Core Strengths

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|---|----------------------------------|-------------------------------------|
| • Mechanical and Thermal Analysis | • Chemical Compounds and | • Great Interpersonal skills |
| • Instron, Shimadzu UTM and auxiliaries | Elemental Analysis HPLC, GC, MS | • NATA Report Reviewing & Issuing |
| • Rheological analysis | • Data Analysis & Interpretation | • Effective Communications |
| • DSC, MDSC, TGA, TMA, DMA | • Analytical Instrument | • Natural Troubleshooting |
| • Surface Analysis and Fractography | Management, Calibrations | • Logical & Analytical Thinking |
| • Material Characterisations with | • Project Management | • Agile adoption and application of |
| ATR-FTIR, XRD, MFR | • Team Leader and Lead Technical | new concepts and Faster learner |
| | Consultant | • Teamwork Due Diligence |

Career Summary

Apr 2021 – Current

RMIT University, Melbourne, VIC, Australia

Technical Officer (Chemical Process and Environmental Team in STEM college)

Outline

As a technical officer under the management of senior coordinator, my responsibilities cover the procurement of consumables, undertake machine repair, maintenance and calibration for daily operation and usage. I also play crucial role in supporting learning & teaching as well as research activities with empirical insights, industrial experience and advice on chemical procurement.

Key Responsibilities

- Managing six separate and fully equipped laboratories in rheology, material characterisation and polymer processing.
- Providing technical supports (both instrumental or experimental) to all stakeholder at various levels (from HDR students and researchers to academic staff and industrial partners).
- Undertaking professional management of wide range of analytical instrumentations (from user roster making, training to maintenance and troubleshooting) to accommodate all users' needs as possible.
- Attending to all requests and enquiries from stakeholders and purchasing necessary chemicals and consumables to ensure proper operation of laboratories in charge.
- Liaising with external supplier for the repair and troubleshooting of instrumentations or the procurement of testing consumables or kits as requested in educational or research activities.
- Reviewing and advising on various compliance documents (risk assessment, research compliance), compiling and updating instrument compliance documents standard operation procedure (SOP), risk assessment (RA) and safe work instruction (SWI) etc.

Jan 2021 – Apr 2021

**ALS Industrial, Melbourne, VIC, Australia
Product Testing Engineer**

Outline

As a critical member in product testing team, I directly dealt with internal and external customers to come up with feasible and economical mechanical testing schemes addressing their most urgent concerns. By adhering to industrial or sector standards, the implementation of critical routine tests or checks guarantee the daily operation of production line. Prepared and compiled technical reports in compliance with NATA requirements.

Key Responsibilities

- Undertook mechanical evaluations with Instron and Shimadzu UTM on products made of various materials to meet clients' technical needs.
- Designed, innovated, and installed rigs, fixtures, or more complicated structures to implement unique testing to specific local or international standards.
- Generated proposals, project scopes and quotations on different product testings for stakeholders.
- Provided valuable inputs to metallurgical case studies which involves metallographic analysis, Load analysis and failure investigations
- Outsource different segments of the entire project and liaise and collaborate with other testing facilities to ensure the smooth progression of entire project.

Jul 2019 – Apr 2020

**ExcelPlas Pty Ltd, Melbourne, VIC, Australia
Technical Supervisor/NATA Signatory/Consulting Expert**

Outline

Reported directly to Technical Manager, conducted instrument management (from operation, calibration to maintenance and repair) and delivered quality instrument seminars/workshops to internal and external stakeholders. I confronted with a range of clients on daily test enquiries, delivered quality technical consultancies, managed client relationships, and oversaw the entire laboratory daily operation as well as quality management on project deliverables.

Key Responsibilities

- Undertook technical consultations through the whole project lifecycle and guaranteed quality project deliverables.
- Oversaw daily performance of technicians and provided technical assistance and guidance as request.
- Managed operational performance, accuracy and efficiency of all mechanical, thermal and rheological instrumentations (such as Instron/Shimadzu UTM, FTIR, DSC, MDSC, TGA, TMA, DMA, QUV, Rheometers, Oven) from operation, calibration to repair and corresponding SOP compilation.
- Organised and liaised with external certified stakeholders for scheduled calibration or verification on equipment.
- Participated in yearly NATA accreditation reassessment as key personnel with in-depth understanding of NATA requirements and accreditation processes.
- Performed internal quality auditing, issued, or rejected NATA reports as signatory and compiled quasi-legal reports for failure analysis and litigation disputes.
- Managed client relations, monitored clients' feedback, responded, and acted to disputes and conflicts.
- Liaised with local and overseas scientific entities (universities, government agencies, laboratories, and regulators) for project collaboration.

Apr 2015 – Jul 2019

**ExcelPlas Pty Ltd, Melbourne, VIC, Australia
Laboratory Supervisor/NATA Signatory/Consulting Expert**

Outline

Promoted to supervise all routine conformance tests within NATA accreditation scope, engaged in quality assurance and management as well as tech consultations as manager's support. I assembled and led customised teams with diverse specialties for special projects with various backgrounds and objectives (such as failure analysis or litigation disputes).

Key Responsibilities

- Assisted or represented manager to perform polymer consultations through phone, email or face-to-face meetings and liaised with NATA accreditation assessors for reassessment.
- Supervised routine and standard NATA accredited tests and performed troubleshooting as required.
- Carried out highly specialised and customised experiments (eg. material identification, flammability, reverse engineering/deformulation) on demand.
- Researched, designed, developed and verified in-house novel experiments/applications with the use of conventional apparatus.

- Organised and delivered quality seminars, workshops and presentations to junior and senior stakeholders on technical topics (eg. lifespan prediction, photodegradation, accelerated depolymerisation, hydrolysis etc.).

Apr 2014 – Apr 2015

ExcelPlas Pty Ltd, Melbourne, VIC, Australia
Senior Laboratory Technician

Outline

Undertook routine, standard, non-standard experiments on polymer products (eg. Geomembranes, geosynthetics, raw resin pellets, injection moulded or compression moulded parts etc.). Highly specialised in mechanical equipment (UTM with extensometers/static thermal chambers, impact tester), thermal and rheological analyzers (DSC, MDSC, TGA, TMA, DMA and rheometers from TA instrument), durability testing (QUV tester, fatigue tester etc.).

Apr 2012 – May 2013

Symbio Alliance, Brisbane, QLD, Australia
Senior Laboratory Technician

Education

M.Eng.	Masters in Chemical Engineering (Distinctive) The University of Adelaide (UoA), Australia	Dec 2011
B.Eng.	Bachelor in Chemical Engineering (Hons, High Distinctive, 1 st in class) Weifang University, China	Jun 2009

Computer Skills & Languages

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| ➤ MS Excel, Word and PowerPoint (Engineering use) | ➤ English (Fluent) |
| ➤ Python (Numpy, Pandas, Tensorflow, Keras, Qiskit Modules) | ➤ Mandarin (Native Speaker) |

References

Tzu-ying Kuo Senior Technical Officer Swinburne University of Technology Tel: 0491 156 052 Email: tkuo@swin.edu.au Relationship: Previous colleague/team member	Steve Shamis Australian Sales and Service Manager TA Instruments Tel: 0413 749 030 Email: sshamis@tainstruments.com Relationship: Current external stakeholder	Devlin Gardner Consultant, Business Owner QMS System Development and Validation Systems Tel: 0408 929 834 Email: devlings@bigpond.com Relationship: Previous Client
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