

(i) Name: **Anthony Chun Yin, YUEN**

(ii) ACADEMIC QUALIFICATIONS:

Sept 2010 to Jan 2015 | **PhD**, Mechanical Engineering, The University of New South Wales, Australia

Sept 2007 to Jul 2010 | **BEng (BSE)**, The University of Hong Kong, Hong Kong SAR.

(iii) AMOUNT OF TIME AS AN ACTIVE RESEARCHER

Jan 2021 to Jan 2023 | **Lecturer, Centre Manager** School of Mechanical and Manufacturing Engineering, The University of New South Wales, Australia;

Jan 2018 to Jan 2021 | **Centre Manager** School of Mechanical and Manufacturing Engineering, The University of New South Wales, Australia;

Jan 2015 to Jan 2018 | **Research Associate** School of Mechanical and Manufacturing Engineering, The University of New South Wales, Australia.

Jan 2023 to Present | **Assistant Professor, Presidential Young Scholar** Dept. of Building Environment and Energy Engineering, The Hong Kong Polytechnic University, Hong Kong SAR.

(iv) RESEARCH OPPORTUNITIES

Dr Yuen's research focuses on the development of computational material science modelling techniques to deliver in-depth characterisations of the atomistic physiochemical behaviours of nanocomposites such as interfacial and surface science reactions between molecules. In addition, he also contributes to the fabrication of novel, bio-inspired and multifunctional nano-architecture composite materials. Dr Yuen aims to synergise my expertise to formulate a systematic, state-of-the-art fire assessment platform to describe the flaming and degradation processes, thermal/electrical conductivities, charring and self-extinction behaviours of advanced materials effectively and physically. Dr Yuen has >**135** SCI journals and **3** book chapters, with an H-index of **32** & >**3600** citations (*Scopus*) Author ID: 55919466700; H-index of **37** & >**4400** citations (*Google Scholar*): [link](#).

Five most representative publications in the recent five years

1. I.M. De Cachinho Cordero, T.B.Y. Chen, **A.C.Y. Yuen***, (2023) Characterising flame-retardant mechanism of phosphorous-containing intumescent coating on polyethylene via ReaxFF MD simulations, *Chemical Engineering Journal*, 480: 148169. [IF=15.1]
2. **A.C.Y. Yuen**, T.B.Y. Chen, C. Wang, et al., (2020) Utilising genetic algorithm to optimise pyrolysis kinetics for fire modelling and characterisation of chitosan/graphene oxide polyurethane composites, *Composites Part B: Engineering*, 182: 107619. [IF=13.1;71 citations]
3. **A.C.Y. Yuen***, T.B.Y. Chen, I.M. De Cachinho Cordero, et al., (2022) Developing a solid decomposition kinetics extraction framework for detailed chemistry pyrolysis and combustion modelling of building polymer composites,” *Journal of Analytical and Applied Pyrolysis*, 163: 105500. [IF=6.0; 16 citations]
4. W. Wang, **A.C.Y. Yuen***, Y. Yuan, et al., (2023) Nano Architected Halloysite Nanotubes Enable Advanced Composite Separator for Safe Lithium Metal Batteries, *Chemical Engineering Journal*, 451: 138496. [IF=15.1; 20 citations]
5. T.B.Y. Chen, **A.C.Y. Yuen***, B. Lin, et al., (2021) “Characterisation of Pyrolysis Kinetics and Detailed Gas Species Formations of Engineering Polymers via Reactive Molecular Dynamics (ReaxFF), *Journal of Analytical and Applied Pyrolysis*, 153: 104931. [IF=6.0; 32 citations]

(v) RESEARCH SUPERVISION, MENTORING AND ADVICE

Dr Yuen has supervised 7 Ph.D., 2 Masters and 5 honours students (primary) to completion at UNSW (2021-2023 as Lecturer). At present, Dr Yuen is currently supervising 3 Ph.D. and 5 honours students at PolyU, Hong Kong. To date, Dr Yuen has mentored his student to secure over 30 journal article publications (as the corresponding author).

(vi) RESEARCH INCOME

As an early-career researcher, Dr Yuen has been actively participating in research grant applications. His total research funding sums up to \$11.96 mil (\$11.62 mil external grant), since his Post doctorate appointments in 2015. The highlights of my recent research income are:

2023: **ACY Yuen**, RKK Yuen, EWM Lee, MTR Research Funding Scheme. (HKD\$970K) [\[link\]](#)

2023: GH Yeoh, B Samali, **ACY Yuen**, et al. (total 31 CIs), FRIASA ARC Research Hub. (AUD\$5M) [\[link\]](#)

2022: **ACY Yuen**, GH Yeoh, Innovation Connection 2022 (ICG001937 - Cooper Neon Pty Ltd). (AUD\$74K) [\[link\]](#)

2022: GH Yeoh, **ACY Yuen**, Jaime Grunlan, ARC Discovery Project (DP22). (AUD\$332K) [\[link\]](#)

(vii) OTHER PROFESSIONAL ACTIVITIES

Editorship experiences: Dr Yuen is currently an Associate Editor of *Fine Chemical Engineering*. He is also a Guest Editor for multiple journals including *Molecules* (IF = 4.6) Special Issue: "New Prospects in Flame-Retardant Materials"; *Polymers* (IF = 4.329) Special Issue: "Advance in Polymer-Based Flame Retardant Materials"; and *Fire* (IF = 3.2) Special Issue: “Computational Insights into Fire Safety: Modelling, Simulation, and Innovative Solutions”.