

## **Dr Graeme Moad AC FAA FTSE**

Chancellor, it gives me great pleasure to present to you an outstanding candidate for admission to the Honorary Degree of Doctor of the University (honoris causa): **Dr Graeme Moad AC FRS FAA FTSE.**

Graeme is a renowned chemist with more than four decades of innovation at the forefront of polymer chemistry in Australia and internationally. His outstanding research in polymer design and synthesis has revolutionised the field and has led to broad commercial impact in many sectors.

Born in Orange, New South Wales in 1952, Graeme was not particularly taken with chemistry as a child, but he did read a lot of science fiction. He ignored aptitude tests indicating a predisposition towards architecture and pursued maths and science because he displayed a natural affinity for it.

Completion of a Bachelor of Science with first class honours at the University of Adelaide in 1974 led to a PhD and a lifetime of being hooked on organic free radical chemistry. A postdoctoral research position at Pennsylvania State University in the USA followed, before Graeme returned to Australia to join the CSIRO as a research scientist in 1979. He progressed to the position of chief research scientist in 1999, then CSIRO fellow in 2015. He was a project leader and a member of management and technical committees for the Cooperative Research Centre for Polymers from its inception in 1992 through to its closure in 2017. In his current role at CSIRO, he is project leader for Strategic Polymer Synthesis and the Catalytic Depolymerization project within CSIRO's Ending Plastic Waste Mission. He is also an adjunct professor at Monash University and an honorary professor at the Beijing University of Chemical Technology.

Graeme's research interests lie in the fields of polymerisation mechanisms, polymer design and synthesis. Natural polymers include proteins such as hair and wool, and polysaccharides such as cotton and starch. Synthetic polymers are now essential to modern life and are used extensively in electronics, biomedicine and nanotechnology.

As a key inventor of CSIRO's Reversible Addition-Fragmentation chain Transfer – known as RAFT technology, Graeme has contributed substantially to the development of new methods for the controlled synthesis of polymers. This innovation has garnered worldwide acclaim and continues to have far-reaching impact. Through allowing a higher degree of control over the way molecules link together, RAFT technology provides a better way of making polymers, plastics, and advanced polymer materials.

CSIRO lists RAFT technology among its top ten innovations from the past 100 years. Commercialisation of the technology has allowed companies to create tailored materials, giving them a competitive advantage in the marketplace. Today, RAFT is

used in manufacturing materials with applications ranging from solar cells, adhesives, paints and cosmetics, to electronics, biosensors, therapeutics and improved drug delivery methods. Together with his CSIRO colleagues Ezio Rizzardo and San Thang, Graeme was named a Citation Laureate by Thomson Reuters and a contender for the 2014 Nobel Prize in Chemistry, such is the brilliance and wide application of their RAFT technology.

Graeme Moad has received many accolades in recognition of his work and outstanding achievements including medals from the CSIRO, the Royal Australian Chemical Institute, and the Australian Academy of Science. He is a Highly Cited researcher and a recipient of a Clunies Ross Award from the Australian Academy of Technological Science and Engineering.

Graeme was elected a Fellow of the Australian Academy of Science in 2012, a Fellow of the Australian Academy of Technology and Engineering in 2021 and just this month he was announced as a Fellow of the Royal Society, UK. He was appointed a Companion of the Order of Australia in the 2022 Australia Day Honours for *eminent service to science, particularly polymer design and synthesis and radical polymerization, education through mentoring, and to professional scientific organisations.*

Today we extend that recognition, in awarding the highest honour the University can bestow.

Chancellor, I am pleased to present to you **Professor Graeme Moad**, Bachelor of Science (Honours), Doctor of Philosophy, Companion of the Order of Australia, Fellow of the Australian Academy of Science, Fellow of the Australian Academy of Technology and Engineering, Fellow of the Royal Society (UK) for admission to the Honorary Degree of Doctor of the University (honoris causa).