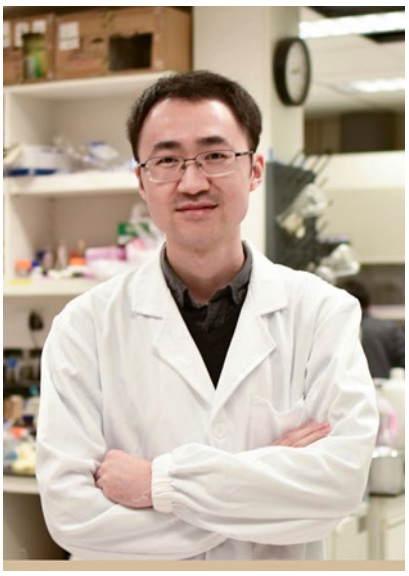
香 港 大 學
THE UNIVERSITY OF HONG KONG

Dr WANG Yufeng
Assistant Professor, Department of Chemistry
Faculty of Science, The University of Hong Kong

Biography



Dr Wang Yufeng received his BS degree in Chemistry from Peking University in 2008, where he studied polymer chemistry under the guidance of Professor Xinhua Wan. He then joined the Professor Marcus Weck group at New York University, focusing on the synthesis and self-assembly of soft materials including colloids and polymers. Co-supervised by Professor Weck and Professor David Pine, he obtained his PhD in Materials Chemistry in 2014. From 2014 to 2016, he did his postdoctoral research with Professor Jeremiah Johnson at Massachusetts Institute of Technology, working on dynamic polymer network materials. Dr Wang joined the Department of Chemistry, The University of Hong Kong in fall 2016 where he is currently an Assistant Professor. His research team is interested in creating new and complex polymeric and colloidal materials for various applications including photonics, drug delivery, self-assembly, micromotors and active matter. Dr Wang received the Croucher Innovation Award in 2019.

Dr Wang's main area of research is colloidal assembly, the aim of which is to put together colloidal nanoparticles — the essential ingredient in food, paints, cosmetics and even electronics — to form 1D to 3D superstructures for emerging applications such as photonics, printing, nano-delivery and micro-machinery, etc. Currently, one of the team's key strategies is to chemically synthesize anisotropic particles with low-symmetry shapes, which introduces specific and directional interactions between particles and yields complex yet well-defined structures via assembly. The reduced symmetry also encodes necessary information that programs the particle's dynamics, making them significantly more useful toward active materials, that is, smart materials that move, adapt, reconfigure and evolve emulating those in the biological and living systems.