Brief CV

Name	Lin Gu	**中文名**	顾林	
Gender	Male	**Title** (Pro./Dr.)	A. Prof.	
Position （President…）		**Country**	China	
University/ Department	School of Chemical Engineering and Technology, Sun Yat-sen University			
Personal Website				
Research Area	Bioinspired functional polymers			

Brief introduction of your research experience:

Dr. Lin Gu now is Associate Professor in School of Chemical Engineering and Technology, Sun Yat-sen University. He received a Doctor degree in Polymer Chemistry and Physics from Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, worked in Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences until July 2019. He was selected as a Hong Kong Scholar at 2016. He worked as a post-doctor in Institute of Textiles & Clothing, The Hong Kong Polytechnic University from Jan. 2017 to Dec. 2018. He has published more than 40 papers in the journal of *Advanced materials, ACS Applied Materials & Interfaces, Polymer, Desalination*, *Cellulose*, etc. on polymer synthesis, bio-based materials, anticorrosive coatings. His research interest is molecular design and synthesis of bioinspired functional polymers, marine corrosion and protection.

报告题目及摘要/ Title & Abstract *

报告题目/Title：	High Performance Spider-silk-mimicking Pseudoprotein Polymer Materials
摘要/ Abstract：	Spider silks are tougher than almost all other materials in the world and thus are considered ideal materials by scientists and the industry. Although there have been tremendous attempts to prepare fibers from genetically engineered spider-silk proteins, it is still a very large challenge to artificially produce materials with a very high fracture energy, not to mention the high scaling-up requirements because of the extremely low productivity and high cost levels. Here, a facile spider-silk-mimicking strategy is first reported for preparing scalable supertough fibers using the chemical synthesis route. Supertoughness (~387 MJ m^{-3}), more than twice the reported value of common spider dragline silk and comparable to the value of the toughest spider silk, the aciniform silk of Argiope trifasciata, is achieved by introducing β-sheet crystals and α-helical peptides simultaneously in a pseudoprotein polymer. The process opens up a very promising avenue for obtaining excellent spider fibers.