ZHANG Xu

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Language

- Chinese (Native proficiency)
- English (Professional working proficiency)

Measure Tools

- FTIR
- TGA
- DMA
- Injection and Modelling Machine
- Polarizing Optical Microscope
- Single-fiber pull-out Test
- Transient Plant Source Method

Software

- ChemDraw
- OriginLab
- MS Office

Research Experience

National College Students' Innovation and Entrepreneurship Training Program , China May 2016 - Apr 2017

Program Code: 201610699271

- Research on the fabrication of modified cyanate ester resins/ high modulus poly (p-phenylene-2,6-benzobisoxazole) (HMPBO) fibers wave-transparent composite;
- Soluble epoxy-terminated PBO precursor (epoxy-prePBO) was fabricated;
- Wave-transparent composite with 7wt% epoxy-prePBO showed satisfactory dielectric constant (e, 2.68) and dielectric loss tangent (tand, 0.0061) values

Study on Preparation of Dopamine-coated Boron Nitride/Polyimide (h-BN/PI) High Thermal Conductivity Composites , China Dec 2018 - Jun 2019

- h-BN nanoparticles modified by dopamine were fabricated;
- Thermal properties of composites with the loading of 20vol% h-BN were improved (in-plane thermal conductivity as 3.009 W/mK).Research on the fabrication of modified cyanate ester resins/ high modulus poly (p-phenylene-2,6-benzobisoxazole) (HMPBO) fibers wave-transparent composite.

Work Experience

Chemist (Full time) Aug 2021 - Present

Evonik (SEA) Pte Ltd., Singapore

- Collaborate with APE academic team on course preparation;
- Research and develop new curriculum materials;
- Travel to partner schools and teach classes required;
- Assist academic on other curriculum development on a project basis.

Internship for Research & Development Work July 2020 - Apr 2021

Evonik (SEA) Pte Ltd., Singapore

- Formulate photopolymer resin and conduct 3D printing work
- Conduct mechanical and thermal properties testing for plastic materials
- Participate in housekeeping and research discussion
- Analyze data and responsible for development of projects and QC of the materials

Education

Master of Science in Industrial Chemistry (Distinction) Jul 2019 - Apr 2021

German Institute of Science and Technology, TUM-Asia, NUS, Singapore

- NUS CAP 4.38/5
- TUM CAP 1.3/5 (1)

Bachelor of Engineering in Polymer Science and Materials Sep 2015 - Jul 2019

Northwestern Polytechnical University, NWPU, China

- GPA 87/100

Awards

- Outstanding Volunteer Award in IICC-X&NPUMUN Conference — May 2018
- Honorable Mention Award in Mathematical Contest in Modeling/Interdisciplinary Contest in Modeling (MCM/ICM) — Apr 2018
- NWPU First-class Scholarship — CY 2017 – 2018
- Second Prize in Chemistry Experiment Competition of NWPU — Oct 2017
- Distinguished Delegation Award in National MUN (NMUN-New York) — Apr 2017
- NWPU First-class Scholarship — CY 2016 – 2017
- NWPU First-class Scholarship — CY 2015 – 2016

Publications

- Junwei Gu, Wencai Dong, Yusheng Tang, Yongqiang Guo, Lin Tang, Jie Kong*, Sruthi Tadakamalla, Bin Wang and Zhanhu Guo. Journal of Materials Chemistry C, 2017, 10.1039/C7TC00222J. IF=5.066.
- Junwei Gu, Shuang Xu, Yusheng Tang, Jie Kong, and Lin Tang. A method of the fabrication of epoxy-terminated p-phenylene-2,6-benzobisoxazole precursor. Chinese Application Number(201610887370.0) (2016-10-11), CN 106478712 A (2017-03-08).