Curriculum Vitae

Yijia He

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EDUCATION

Feb 2019 – Dec 2020	University of Adelaide (UoA)	Chemical Engineering	Master
Sep 2014 – Jun 2018	Huazhong Agriculture University (HZAU)	Food Safety and Security	Bachelor

• experimental courses score of chemistry averaged over 86 (total 100), experimental courses score of biochemistry averaged over 88 (total 100) in HZAU.

RESEARCH INTEREST

Material Chemistry.

• Nanomaterial as Master project. Participation in an online course on bionics of superhydrophobic materials.

PUBLICATIONS & RESEARCH PAPERS

PUBLICATIONS	2018	钱秋红,夏铭,何易珈,等. 紫薯鲜料非油炸方便面的研制[J]. 食品科技,2018,43(4):159-165. (Qiuhong Qian, Ming Xia, Yijia He *et al.* Food chemistry: Development of Purple Sweet Potato Fresh Material and Non-Fried Instant Noodles. Food Science, 2018,43(4):159-165.)
	2017	成令茹,谢定源,钱秋红,等. 2000-2012 年中国农村居民食物消费现状及其与气候的相关性[J]. 卫生研究,2017,46(6):861-867. (Lingru Cheng, Dingyuan Xie, Qiuhong qian *et al.* Current situation of food consumption and its correlation with climate in rural China from 2000 to 2012. Journal of Hygiene Research, 2017,46(6):861-867)
WORKING PAPERS	2021	**A Review on Preparation and Application of Superhydrophobic Surfaces: from Fluorine to Nature.** **Macroscopic Carbon Materials derived from BioSource for environmental applications.**
UNPUBLISHED PAPERS	Sep 2020	How **Biomass** can Replace the Oil Barrel? Case Study: Chernobyl Disaster.
	Jun 2020	**Membrane** process plant to treat secondary effluent for reuse: a conceptual design.
	Oct 2019	Liquid-liquid extraction of styrene and ethylbenzene with diethylene glycol. A conceptual design for a grassroots cumene process.
	Jun 2019	A preliminary design for a rotary kiln and burner. Project Management Plan: Adelaide Board Game Club (ABGC) Project.

REASEARCH EXPERIENCE

Sep 2020 – Dec 2020	Second master project about **BioSource carbon nanomaterial for environmental application**. *• Outcomes: a literature review (for publishing), a presentation.*
Sep 2020 – Dec 2020	**Biomass** as a potential alternative to oil barrel (group research). *• Contribution: the biodiesel and bioethanol as two possible commercial application.*
Apr 2020 – Jun 2020	A conceptual design about membrane process plant to treat secondary effluent for reuse.

	*• Contribution: discussed the membrane processes Advanced **Water Treatment** Plant under prescribed condition and sizing all major equipment in the report.*
Mar 2020 – Jun 2020	First master project about food-based raw material graphene. *• Contribution: a paper about project outline and plan as a group.*
Oct 2019 – Nov 2019	**Blood plasma separation and fractionation.** *• Contribution: different methods of **separation and membranes,** including its biocompatibility, large-scale application, etc.*
Aug 2019 – Oct 2019	A conceptual design for a grassroots cumene process. *• Contribution: synthesize the production process via the **Means-Ends Analysis method**, simulate the process using **Aspen HYSYS software**, and optimize the PFD following the process simulation.*
Apr 2017 – Jun 2018	Participation in Food Science and Technology Laboratory in HZAU. *• Outcomes: participated in two food chemistry projects in the laboratory.*

PRACTICAL EXPERIENCES

Aug 2020 – Oct 2020	A three-month internship in a factory mainly engaged in chlor-alkali industry and polyvinyl chloride production.

SKILLS

MATLAB. HYSYS. Python.