

Lingchen Kong

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EDUCATION

The George Washington University (GWU)	Washington, DC, USA
Ph.D in Environmental Engineering	1/2020-12/2023 (Expected)
Virginia Polytechnic Institute and State University (VT)	Blacksburg, VA, USA
M.Eng. in Materials Science and Engineering	8/2018-12/2019
<ul style="list-style-type: none">Relevant coursework: Advanced Materials Thermodynamics (Fall 2018, A, ranked 1/7) Materials Science Surface & Interface (Spring 2019, A)Honors: Student member, The American Ceramics Society	
The University of Illinois at Chicago (UIC)	Chicago, IL, USA
Exchange student	9/2017-5/2018
<ul style="list-style-type: none">Relevant coursework: Ceramics Engineering (Fall 2017, A) Corrosion Engineering (Spring 2018, A, ranked 1/13)	
Xi'an Jiaotong University (XJTU)	Xi'an, China
B.Eng. in Material Science and Engineering	9/2014-6/2018
<ul style="list-style-type: none">Relevant coursework: Characterization Techniques in Materials Science Research (Spring 2017, 97/100) Fundamentals of Materials Science (Fall 2016, 78/100, ranked top 5%)Awards: Outstanding Graduates, Xian Jiaotong University 2018 Outstanding Student Leader, Xi'an Jiaotong University 2015-2016	
Xi'an Jiaotong University (XJTU)- Special Class for the Gifted Young (Honor Youth Program)	9/2012-6/2014
<ul style="list-style-type: none">Awards: Outstanding Delegation, Peking University National Model United Nations Conference 2013	

RESEARCH EXPERIENCES

Department of Civil and Environmental Engineering, The George Washington University	Washington, DC, USA
Graduate Research Assistant , Advisor: Prof. Xitong Liu	Jan.2020-present
Department of Materials Science and Engineering, Virginia Tech	Blacksburg, VA, USA
Graduate Research Assistant , Advisor: Prof. Kathy Lu	Aug.2018-Dec.2019
<ul style="list-style-type: none">Au/PS hybrid materials as photothermal healing films<ul style="list-style-type: none">Synthesized Au nanoparticles with 5 ± 1 nm and PS hybrid materials films with homogeneous dispersionCharacterized the nanoparticle size distribution by dynamic light scattering (DLS) and dispersion homogeneity by SEM and TEMAnalyzed photoinduced self-healing property with different sizes of surface defectsZnO/PMMA hybrid materials as flexible UV-shielding films<ul style="list-style-type: none">Synthesized ZnO quantum dot with 6 ± 1 nm and PMMA hybrid materials with homogeneous dispersionCharacterized UV shielding properties before and after UV irradiation by UV-Vis SpectroscopyCharacterized mechanical properties of hybrid films before and after UV irradiation by dynamic mechanical analyzer (DMA)	
School of Chemistry and Chemical Engineering, Harbin Institute of Technology	Harbin, China
Research Assistant , Advisor: Prof. Xiaohong Wu	Jun.2018-Aug.2018
<ul style="list-style-type: none">Synthesized highly electrocatalytic high-entropy alloys (FeCoNiMnSn) by mechanical alloying	

- Characterized the electrochemical properties of high-entropy alloys as electrocatalysts for oxygen evolution reaction in splitting water

- Analyzed the phase composition of high-entropy alloys by XRD and SEM

Department of Civil and Materials Engineering, University of Illinois at Chicago

Chicago, IL, USA

Undergraduate Thesis, Advisor: Prof. Michael J. McNallan

Dec.2017-Apr.2018

- Synthesis of nanostructured carbon by electrolysis of ceramic carbides in molten salts

State Key Laboratory for Mechanical Behavior of Materials, Xi'an Jiaotong University

Xi'an, China

Research Assistant, Center for Advanced Materials Performance from the Nanoscale

Sep.2016-Jul.2017

Advisor: Prof. Zhiwei Shan, Prof. Boyu Liu

- Analyzed corrosion behavior of Mg alloy under different atmospheres (vacuum, O₂, CO₂) on the nanoscale, and analyzed the phase composition of corroded product using TEM
- Characterized the mechanical properties of Mg alloys corroded by CO₂ on the nanoscale using in-situ TEM

Xi'an Aero-engine LTD., Aero Engine Corporation of China

Xi'an, China

Student Intern, Center of Materials Characterization

Jul.2017

- Collected the data from tensile and high-temperature characterization experiments, and analyzed whether materials like steel and rubber met the criteria

State Key Laboratory for Manufacturing Systems Engineering, Xi'an Jiaotong University

Xi'an, China

Research Assistant, Advisor: Prof. Xiaoyong Tian

Sep.2013-Dec.2013

- Designed 3D models of a porous product and used PLA to print it out using fused deposition modeling method

PUBLICATIONS

Lingchen Kong; Xitong Liu*, "Emerging electrochemical processes for materials recovery from wastewater: Mechanisms and prospects." *Frontiers of Environmental Science & Engineering* **2020**, *14* (5). <https://doi.org/10.1007/s11783-020-1269-2>

Yi Je Cho; **Lingchen Kong**; Islam Rezawana; Meitong Nie; Wei Zhou; Kathy Lu*, "Photothermal self-healing of gold nanoparticle-polystyrene hybrids" *Nanoscale* **2020**. <https://doi.org/10.1039/D0NR05621A>

Lingchen Kong; Advait Rau; Ni Yang; Kathy Lu*, "ZnO Nanoparticle-Poly (methyl methacrylate) Hybrids as Flexible Ultraviolet Shielding Films" (*Materials Science & Technology* 2020, accepted)

LEADERSHIP AND ACTIVITIES

Undergraduate Commencement Ceremony of XJTU, Ceremonial Beadle of University's Mace

Jun.2018, Xi'an

- Carried the University's Ceremonial Mace as the only student representative

The 11th International Workshop on Materials Behavior

Jun. 2018, Xi'an

at Micro- and Nano-Scale, Xian Jiaotong University, Student Volunteer

- Arranged the arrival and departure schedule of invited speakers

Student Union of Xi'an Jiaotong University, President

Sep. 2016- Jun. 2017, Xi'an

- Led the organization overhaul of Student Union, including rearranging the department distribution, optimizing the functions of each department
- Led the preparation of the 32nd Students' Congress of Xi'an Jiaotong University
- Organized monthly meetings about student rights with deans of departments, on issues including teaching, student affairs and logistics

Shaanxi Province Magnesium Industry Conference, Xi'an Jiaotong University, Student Volunteer

Jun.2017, Xi'an

- Recorded the contents and summarized the outlines of every keynote speech

The 10th KH Kuo Summer School & International Workshop on Materials

May. 2017, Xi'an

Behavior at Micro- and Nano-Scale, Xian Jiaotong University, Student Volunteer

- Arranged the schedule of each speech in sub-forum

Silk Road Youth Leadership Program

Aug. 2015- Aug. 2016

Xi'an Jiaotong University & Peking University & The Hong Kong Polytechnic University, Team leader

- Silk Road Youth Forum, Haifa University, Israel, Keynote Speaker Jan. 2015, Haifa, Israel
- Summer School, Ivanovka School, Kyrgyzstan, Volunteer Teacher Jul. 2016, Tokmok, Kyrgyzstan

The 120th anniversary of Jiaotong University, Volunteer Translator for

Apr. 2016, Xi'an

Prof. Konstantin Novoselov, winner of Nobel Prize in Physics 2010

- Translated the meeting between Prof. Novoselov and Vice President of XJTU, Tiejun Wang
- Translated the interview for press, including Shaanxi Daily and Tencent News Shaanxi

Asian International Model United Nations 2015, Peking University, Delegate of UNICEF

Apr. 2015, Beijing

- Composed a country program document (CPD) about the care and protection of disabled children

5th CJR (China-Japan-Republic of Korea) Youth Forum, Delegate

Sep.2014, Xi'an

- Discussed the popularization of Chinese traditional culture

National High School Debate Competition 2013, Debater

Apr. 2013, Shanghai

- Debated about the advantages and disadvantages of nuclear industry development in China
- Won the sixth place among over fifties teams around China

National Model United Nations Conference 2013, Peking University, Delegate of UNDP

Mar.2013, Beijing

- Put forward a new classification of international carbon trade and CO₂ emission reduction
- Composed a draft resolution dealing with the global warming problem

ADDITIONAL INFORMATION

Skills

- Languages: Chinese (Native), English (TOEFL: R:23, L:24, S:23)
- Software: Origins, Jade; SolidWorks, AutoCAD, Microsoft Office, ANSYS
- Equipment: DLS, XRD, SEM

Interests

- Chess (Over 10 years' experience, won the 10th place in national competition)
- Drums (Over 15 years' experience, member of a campus band)
- Badminton