

Hongjia Ma, B. Eng.

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🌐 <https://hongjiama.github.io>

Education

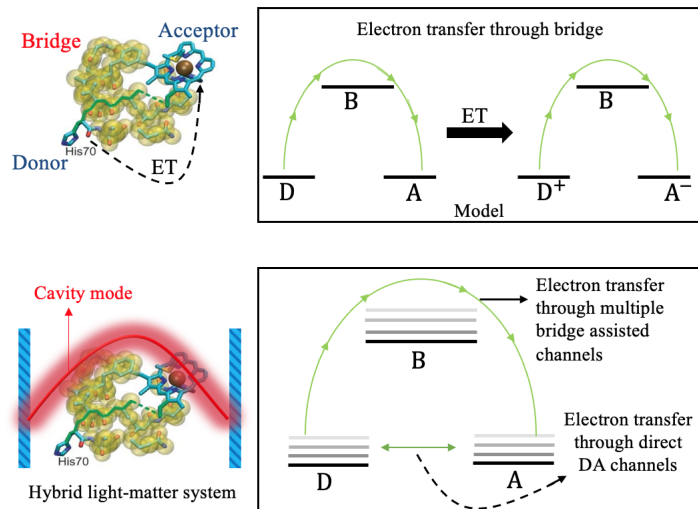
2016 – 2020 📖 **B.Eng., Hebei University of Technology** in Materials Science and Engineering.

Projects

Donor-Bridge-Acceptor:

Tuning chemical reactivity by coupling molecular system to a photon field in an optical cavity.

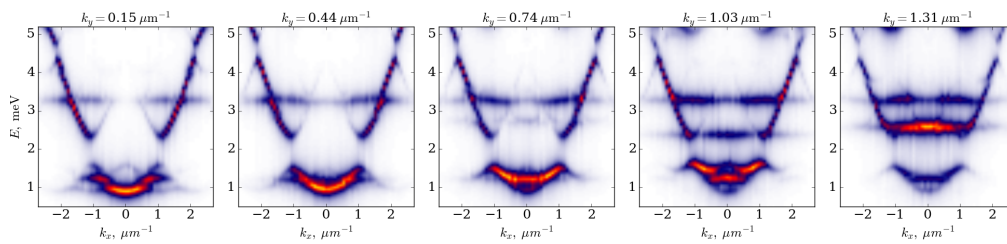
It showed that in presence of optical cavity one can create two different pathways for electron transfer:



Linear-Far-Field:

Linear regime. TE-TM splitting is neglected.

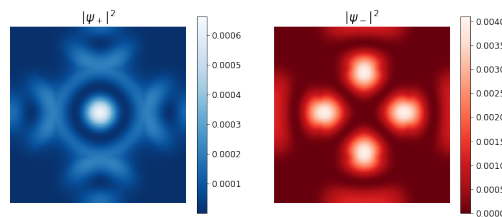
Calculation of the far-field radiation from a polariton lattice. Example for the Lieb lattice is below:



Linear-TE-TM:

Linear spectrum in presence of a TE-TM splitting.

For, example, 15th mode for the Lieb lattice at $(kx, ky) = (0, 0)$ is presented below:



Employment History

- 2020 – 2022 **High School Physics Teacher**, Beijing Xueersi.
2022 – 2023 **Journal Editor**, Mechanical Industry Information Research Institute.

Miscellaneous Experience

Awards and Achievements

- 2019 **Excellent Student Leader**, Hebei University of Technology.
 Outstanding club cadres at the school level, Hebei University of Technology.
2018 **Excellent Minister**, Director of the Organization Department of the Employment Guidance Center of Hebei University of Technology.
2017 **League Branch Secretary**, School of Materials Science and Engineering Youth League Branch.
2016 **Excellent Minister**, Director of the Literature and Art Department of the Student Union.

Certification

- 2019 **CET-6(only 452)**. Awarded by Education Examination Institute of the Ministry of Education.
2018 **NCRE**. Awarded by National Education Examinations Authority.
 SAC. Awarded by Securities Association.

Skills

- Languages Strong reading, writing and speaking competencies for English, Mandarin Chinese.
Coding Julia, C#, Python, SQL, XML/XSL, \LaTeX , ...
Misc. Academic research, reading, and travelling.

Self Evaluation

I excel at **rapid knowledge acquisition** and possess a cheerful, agile mindset.
With youthful vitality, I **approach tasks responsibly** and maintain strong organizational skills.
I am **sociable, diligent, unafraid of taking on challenges**, and always see things through to completion.
I never shirk responsibility and have a **robust team spirit** coupled with excellent coordination abilities.