

National Yang Ming Chiao Tung University

Information and Co-author Contribution Statement of Thesis by Publication

To maintain academic and research integrity, the candidate of TBP (hereinafter referred to as the declarant) hereby declares the relevant information of the TBP and the contribution of co-authors.

1 、 The Declarant's Profile



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|---|
| (1) Name: Jhen-Dong Lin |
| (2) Department/Program: Department of Electrophysics |
| (3) The thesis title : A First-Principles Based of Exctons in Transition Metal Dichalcogenide Monolayers and Near-field Interaction |

2 、 The Relevant Information of My TBP

| The Information of Each Publication <small>note 1</small> | |
|---|--|
| In which chapters of the thesis is the publication included | Chapter3 FRET in 0D-2D system |
| Type: Academic Work in Journals or Conferences | |
| Journal or Conference Name | npj 2D Materials and Applications |
| Work Title | Essential role of momentum-forbidden dark excitons in the energy transfer responses of monolayer transition-metal dichalcogenides |
| Publication or Presentation Status | <div><input checked="" type="checkbox"/> Published or Presented: 2023 07 25 (YYYY MM DD). Link: https://doi.org/10.1038/s41699-023-00414-z</div> <div><input type="checkbox"/> Accepted for Publication or Presentation (Please attach acceptance proof): YYYY MM DD.</div> |
| Declaration of Contribution by the Author (Student) to this Work Compilation | |

| Contribution Explanation | Establishing the foundation of Förster resonant energy transfer (FERT) theory; Extending the FRET theory; Performing FRET rate simulations; Analyzing simulation results; Wrote the article | | | | | |
|---|---|--|--|--|---------------------|------------|
| Percentage contribution to the entire academic thesis | 30% | | | | | |
| Relevant Information and Responsibilities of Co-Authors | | | | | | |
| Author Order (Please specify corresponding author) | Name | Affiliation of the author as listed in the work | Division of labor (the percentage of contribution must be indicated) | Has this paper been included in the dissertation or faculty promotion work by the following co-authors | Signature note 2 | Date |
| 1 st Author | Jhen-Dong Lin | Department of Electrophysics, National Yang Ming Chiao Tung University | Establishing the foundation of Förster resonant energy transfer (FERT) theory; Extending the FRET theory; Performing FRET rate simulations; Analyzing simulation results; Wrote the article (percentage of contribution: 30 %) | No | Jhen-Dong Lin | 07/21 2024 |

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|---------------------------|-----------------|--|---|----|-----------------|-------------|
| 2 nd Author | Ping-Yuan Lo | Department of Electrophysics, National Yang Ming Chiao Tung University | Establishing the foundation of Förster resonant energy transfer (FERT) theory; Extending the FRET theory (percentage of contribution: 15 %) | No | Ping-Yuan Lo | 7/21, 2024 |
| 3 rd Author | Guan-Hao Peng | Department of Electrophysics, National Yang Ming Chiao Tung University | Performing DFT calculations of MoS ₂ -ML (percentage of contribution: 7.5 %) | No | Guan-Hao Peng | 08/12, 2024 |
| 4 th Author | Wei-Hua Li | Department of Electrophysics, National Yang Ming Chiao Tung University | Performing DFT-based BSE calculations of MoS ₂ -ML (percentage of contribution: 7.5 %) | No | Wei-Hua Li | 8/10.2024 |
| 5 th Author | Shiang-Yu Huang | Leibniz Institute of Photonic Technology | Establishing the foundation of Förster resonant energy transfer (FERT) theory (percentage of contribution: 7.5 %) | No | Shiang-Yu Huang | 2024.07.21 |

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|---|-------------------|---|---|----|---|------------|
| 6 th Author | Guang-Yin Chen | Department of Physics, National Chung Hsing University | Establishing the foundation of Förster resonant energy transfer (FERT) theory (percentage of contribution: 7.5 %) | No |  | 2024.08.13 |
| 7 th Author (Corresponding Author) | Shun-Jen Cheng | Department of Electrophysics, National Yang Ming Chiao Tung University | Conceived and supervised the project; Wrote the article (percentage of contribution: 25 %) | No |  | 2024.08.09 |

Notes:

1. If your TBP includes more than one publication, please add forms according to types and fill in the details of the fields below 'Thesis Body Section' and 'The Information of Each Publication'.
2. If the signature of the co-author cannot be obtained for some reason, please explain it in the signature field.

The above statements are all true. If there is any falsehood, the declarant is willing to bear the relevant legal and academic ethical responsibilities.

The declarant's signature: 

The advisor's signature: 

The co-advising professor's signature (exempt if none):

Seal of the department: 

Date: 08.16.2024 (mm-dd-yyyy).