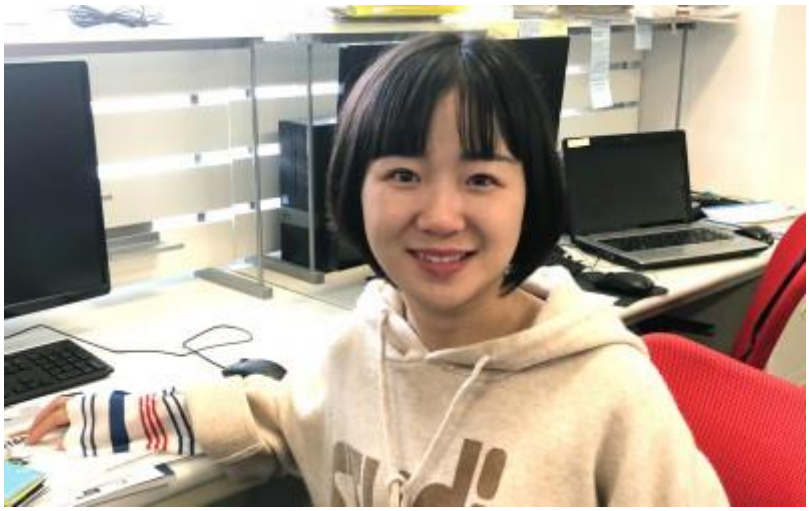
LIANG, Dou-Dou (梁 豆豆)

liangdoudou1993(at)foxmail.com



Room: Research Institute for Electronic Science 3F 03-106
TEL: +81-11-706-9433 / FAX: +81-11-706-9432
keywords: Thermoelectric materials, Transparent Oxide Semiconductors

0000-0002-4112-2069

Biography

October 2018 – October 2020: Special Research Student of Research Institute for Electronic Science, Hokkaido University (Supervisor: Prof. Hiromichi Ohta)

September 2015 – current: Ph. D candidate, in School of Materials Science and Engineering, University of Science and Technology Beijing (USTB)
(Supervisor: Prof. Boping Zhang)

September 2011 – July 2015: B.E., School of Materials Science and Engineering, Ji Nan University

ResearcherID ResearchGate facebook

Original Papers (8)

[8] **Dou-dou Liang***, Binjie Chen, Bin Feng, Yuichi Ikuhara, Hai Jun Cho, and Hiromichi Ohta*, "Two-dimensional Channel Thickness Optimization in Tin Dioxide based Top-gated Thin-Film Transistor using Electric Field Thermopower Modulation", under review

[7] **Dou-dou Liang***#, Binjie Chen#, Hai Jun Cho, and Hiromichi Ohta*, "Thickness Optimization toward High-Performance Bottom-Gated Transparent Tin Dioxide Thin-Film Transistor", *ACS Appl. Electron. Mater.* 2, XXXX-XXXX (2020). (October 9, 2020) (DOI:10.1021/acsaelm.0c00711)

[6] Mian Wei#, Lizhikun Gong#, **Dou-dou Liang**#, Hai Jun Cho*, and Hiromichi Ohta*, "Fabrication and Operating Mechanism of Deep-UV Transparent Semiconducting $SrSnO_3$-based Thin Film Transistor", *Adv. Electron. Mater.* **6**, 2000100 (2020). (June 15, 2020) (DOI: 10.1002/aelm.202000100) (# Equally contributed to this work) **Press release**

[5] **Dou-dou Liang***, Yu-qiao Zhang, Hai Jun Cho and Hiromichi Ohta*, "Electric field thermopower modulation analyses of the operation mechanism of transparent amorphous SnO_2 thin-film transistor", *Appl. Phys. Lett.* **116**, 143503 (2020). (April 8, 2020) (DOI: 10.1063/5.0003153) **arXiv**

[4] **D.-D. Liang**, Z.H. Ge, H.Z. Li, B.P. Zhang, F. Li, "Enhanced thermoelectric property in superionic conductor Bi-doped $Cu_{1.8}S$", *J. Alloys Compd.* **708** (2017) 169–174.

[3] **D.-D. Liang**, B.-P. Zhang, L. Zou, "Enhanced thermoelectric properties of $Cu_{1.8}S$ by Ti-doping induced secondary phase", *J. Alloys Compd.* **731** (2018) 577–583.

[2] D.-B. Zhang, H.-Z. Li, B.-P. Zhang, **D.-D. Liang**, M. Xia, "Hybrid-structured ZnO thermoelectric materials with high carrier mobility and reduced thermal conductivity", *RSC Adv.* **7** (2017) 10855–10864.

[1] J. Pei, B.-P. Zhang, J.-F. Li, **D.-D. Liang**, "Maximizing thermoelectric performance of $AgPb_mSbTe_{m+2}$ by optimizing spark plasmasintering temperature", *J. Alloys Compd.* **728** (2017) 694–700.

Presentations (9)

[9] **Dou-dou Liang**, Yu-qiao Zhang, Hai Jun Cho, and Hiromichi Ohta, "Electric field thermopower modulation analyses of the operation mechanism of transparent amorphous SnO_2 thin-film transistor", Pacific Rim Meeting on Electrochemical and Solid State Science (PRiME 2020), Honolulu, HI (or online), October 4-9, 2020.

[8] **Doudou Liang**, Binjie Chen, Hai Jun Cho, Hiromichi Ohta, "Electric Field Thermopower Modulation Analyses of the Channel Thickness for SnO_2 Thin Film Transistors", 2020 年 第 81 回応用物理学会秋季学術講演会, online, September 8-11, 2020.

[7] **Dou-dou Liang**, Yu-qiao Zhang, Hai Jun Cho, and Hiromichi Ohta, "Electric field thermopower modulation analyses of the operation mechanism of amorphous SnO_2 thin film transistor", The 67th JSAP Spring Meeting 2020 (canceled, the presentation has been established), Sophia University, Tokyo, March 12-15, 2020

[6] **Dou-dou Liang**, Yu-qiao Zhang, Hai Jun Cho, and Hiromichi Ohta, "熱電能電界変調法によるアモルファス SnO_2 透明薄膜トランジスタ動作解析", The 55th Japan Society of Applied Physics Hokkaido Branch Meeting, Hokkaido University, January 11-12, 2020. **第 23 回応用物理学会北海道支部発表奨励賞 受賞**

[5] **Doudou Liang**, Hai Jun Cho, and Hiromichi Ohta, "Electric field thermopower modulation of high-mobility SnO_2 transparent thin film transistor", The 3rd Workshop on Functional Materials Science, Sapporo, Japan, December 18th-20th, 2019. (Poster)

[4] **Dou-dou Liang**, Yu-qiao Zhang, Hai Jun Cho, and Hiromichi Ohta, "Electric field thermopower modulation analyses of high mobility transparent amorphous SnO_2 thin film transistor", RIES-NCTU Workshop, Hokkaido University, Sapporo, Japan, December 3-4, 2019. (Poster)

[3] **Dou-dou Liang**, Yu-qiao Zhang, Hai Jun Cho, and Hiromichi Ohta, "Electric field thermopower modulation analyses of high mobility transparent amorphous SnO_2 thin film transistor", The 20th RIES-HOKUDAI International Symposium, Hokkaido University, Sapporo, Japan, December 2-3, 2019. (Poster)

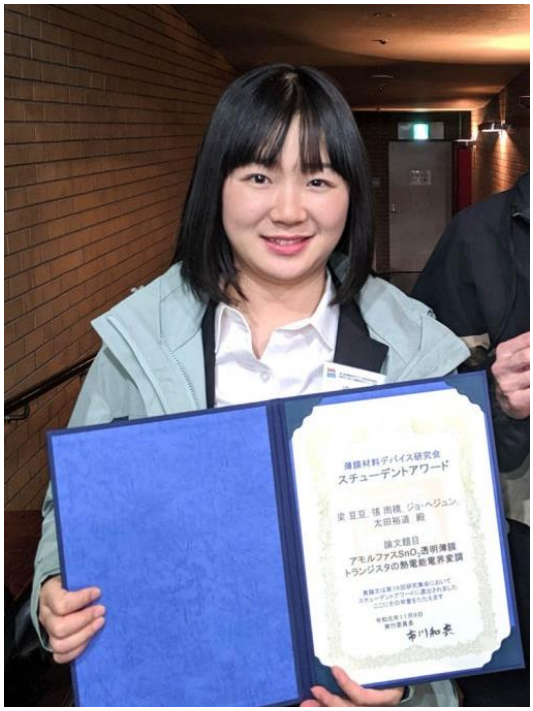
[2] **Dou-dou Liang**, Yu-qiao Zhang, Hai Jun Cho, and Hiromichi Ohta, “Electric field thermopower modulation of amorphous SnO_2 transparent thin film transistor”, 薄膜材料デバイス研究会 第 16 回研究集会 in 京都「新時代に向けた薄膜材料のデバイス技術」, 龍谷大学 響都ホール, 京都府京都市, 2019 年 11 月 8 日-9 日(Oral) **スチューデントアワード受賞**

[1] **Dou-Dou Liang**, Bo-Ping Zhang, Jun Pei, “Enhanced thermoelectric performance of MoS2 by Sb-doping”, The 19th RIES-HOKUDAI International Symposium 組[So], Jozankei View Hotel, Sapporo, December 11th-12th, 2018 (Poster).

Awards (6)

[6] **第 23 回応用物理学会北海道支部発表奨励賞**, (2020.3.9) **Dou-dou Liang**, Yu-qiao Zhang, Hai Jun Cho, and Hiromichi Ohta, “熱電能電界変調法によるアモルファス SnO_2 透明薄膜トランジスタ動作解析”, 第 55 回応用物理学会北海道支部/第 16 回日本光学会北海道支部合同学術講演会 **賞状 写真**

[5] **スチューデントアワード**, 薄膜材料デバイス研究会 第 16 回研究集会 in 京都「新時代に向けた薄膜材料のデバイス技術」, “Electric field thermopower modulation of amorphous SnO_2 transparent thin film transistor”, **Dou-dou Liang**, Yu-qiao Zhang, Hai Jun Cho, and Hiromichi Ohta, 龍谷大学 響都ホール, 京都府京都市, 2019 年 11 月 8 日-9 日 (Oral) **賞状 写真**



Press report (3)

[1] OPTRONICS ONLINE, “北大，DUV を透過する透明トランジスタを実現” (2020.6.16)

[2] fabcross for エンジニア, “深紫外線を透過する透明な薄膜トランジスタを作製――殺菌灯照射下でも動作可能な新バイオセンサーへの応用に期待　北海道大学” (2020.6.17)

[3] e.x.press, “深紫外線線を透過する透明なトランジスタを実現” (2020.6.24)