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## 略歴

2022–Present: Postdoctoral Research Fellow, RIES, Hokkaido University, Japan

2021: Postdoctoral visitor, Functional Materials Engineering (FME), IMO–IMOMEC, Hasselt University, Belgium

2016–2022: Assistant Professor, Department of Physica, Marwadi University, India

2018: Ph.D. (Physics), Charotar University of Science and Technology, Changa, Gujarat, India

2017: Department of Electronic Materials Engineering, Research School of Physics, ANU, Canberra, Australia

2012–2016: Ph.D. candidate, PDPIAS, Charotar University of Science and Technology, India

2011–2012: Assistant Professor, Department of Physics, Babaria Institute of Technology, India

2008–2011: Lecturer, Department of Physics, Government Polytechnic, India

2007: Master of Science (Physics), Saurashtra University, India  
2005: Bachelor of Science (Physics), Saurashtra University, India

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- [14] **Prashant R. Ghediya**, Yash M. Palan, Drashti P. Bhangadiya, Ishrat I. Nakani, Tapas K. Chaudhuri, Kinjal Joshi, C. K. Sumesh, Jaymin Ray, "Electrical properties of Ag/p-Cu<sub>2</sub>NiSnS<sub>4</sub> thin film Schottky diode", *Materials Today Communications* 28 (2021) 102697 **The Charusat Research Paper Award 2023**
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- [11] **Prashant R. Ghediya**, T. K. Chaudhuri, Jaymin Ray, Heena L. Panjwani, Priyanka J. Hemani, Priya P. Paneri, Ravirajsingh J. Jadav, K. D. Rupapara and R. R. Joshi, "Synthesis and characterizations of copper cadmium sulphide (CuCdS<sub>2</sub>) as potential absorber for thin film photovoltaics", *Materials Chemistry and Physics* 252 (2020) 123382.

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## プロシードィングス (4)

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## 招待講演 (3)

[3] Versatility of molecular ink: ‘Deposition of new emerging materials to fabrication of solar cells’, XV Workshop on Physics of Condensed and Molecular Matter organized by Science Research Centre, Autonomous University of the State of Morelos, Mexico, June 21-23, 2021.

[2] Expert talk on webinar ‘Research: Importance & Outcomes’ organized by Applied Science and Humanities Department, Government Engineering College (GEC), Valsad, Gujarat, India, 26 May 2020.

[1] Sneha I. Solanki, I. B. Patel, J. D. Baraliya and **Prashant R. Ghediya**, "Preparation of  $\text{Bi}_2\text{S}_3$  Nanoparticles by High-Energy Ball Milling Technique", IOP Theory meets experiments: molecular nanoscience and applications, University College London, London, UK, 1-3 June, 2015.

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[12] ゲディアプラシャント, 曲 勇作, 楊 卉, 張 雨橋, 松尾保孝, 太田裕道, "高背圧下 PLD により作製した高移動度  $\text{In}_2\text{O}_3$  薄膜を活性層とする TFT", "全固体電気化学熱トランジスタ", 第 70 回 応用物理学会 春季学術講演会, 上智大学 四谷キャンパスオンライン, 2023 年 3 月 15 日-18 日

[11] **Prashant R. Ghediya**, Hui Yang, Takashi Fujimoto, Yuqiao Zhang, Yasutaka Matsuo, Hiromichi Ohta, "Electric Field Thermopower Modulation Analyses of the Operation Mechanism of Amorphous  $\text{InGaO}_3(\text{ZnO})_m$  Thin Film Transistors", 7th International Conference on Advances in Functional Materials (AFM 2023), Fukuoka, Japan, January 9-12, 2022 (Oral)

[10] **Prashant Ghediya**, Hui Yang, Takashi Fujimoto, Yuqiao Zhang, Yasutaka Matsuo, Hiromichi Ohta, "Electric Field Thermopower Modulation Analyses of Effective Channel

Thickness of Amorphous  $\text{InGaO}_3(\text{ZnO})_m$  Thin Film Transistors”, The 29th International Display Workshops (IDW '22), Fukuoka, Japan, December 14-16, 2022 (poster). **Outstanding Poster Paper Award**

[9] **Prashant Ghediya**, Hui Yang, Takashi Fujimoto, Yuqiao Zhang, Yasutaka Matsuo, Yusaku Magari, and Hiromichi Ohta , “Electric Field Thermopower Modulation Analyses of Operation Mechanism of  $\text{InGaO}_3(\text{ZnO})_m$  Thin Film Transistors”, The 23rd RIES-Hokudai International Symposium 拓 [Taku], Sapporo, Japan, December 5-6, 2022.

[8] **Prashant R. Ghediya**, Hui Yang, Takashi Fujimoto, Yuqiao Zhang, Yasutaka Matsuo, Hiromichi Ohta, “Electric Field Thermopower Modulation Analyses of  $\text{InGaO}_3(\text{ZnO})_m$  ( $m = 1-30$ ) Thin Film Transistors”, 薄膜材料デバイス研究会 第 19 回研究集会 in 京都, 龍谷大学響都ホール(京都府京都市), 2022 年 11 月 17 日-18 日.

[7] **Prashant R. Ghediya**, “Ultrasonic Spray Coating of CZTS and CCdTS films for tandem solar cells”, The 12th European Kesterite+ Workshop organized by Technical University of Denmark (DTU), Copenhagen, Denmark, February 9-11, 2022

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[5] **Prashant R. Ghediya** and Tapas K. Chaudhuri, “ $\text{Cu}_2\text{ZnSnS}_4$  films deposited from nano-ink for solar photovoltaics”, International Conference on Nanoscience and Technology (ICONSAT 2018), Indian Institute of Science Campus (IISc) Bengaluru, Karnataka, 21-23 March, 2018.

[4] **Prashant R. Ghediya**, “Copper zinc tin sulphide (CZTS) as a potential absorber for thin films solar cells”, Engineer’s Day Celebration – Research Work Presentation, 15 September, 2016, Marwadi University, Rajkot, Gujarat, India.

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## 特許 (1)

[1] 太田裕道, 曲 勇作, ゲディア プラシャント ラマニクラル, “薄膜トランジスタ”, 特願 2023-185660, 2023 年 10 月 30 日出願

## 受賞 (5)

[5] **The Charusat Research Paper Award 2023**, Title: Electrical properties of Ag/p-Cu<sub>2</sub>NiSnS<sub>4</sub> thin film Schottky diode, Authors: **Prashant R. Ghediya\***, Yash M. Palan, Drashti P. Bhangadiya, Ishrat I. Nakani, Tapas K. Chaudhuri, Kinjal Joshi, C. K. Sumesh, Jaymin Ray, Publication: Materials Today Communications 28 (2021) 102697

[4] **Prashant Ghediya, Outstanding Poster Paper Award**, The 29th International Display Workshops (IDW '22), **Prashant Ghediya**, Hui Yang, Takashi Fujimoto, Yuqiao Zhang, Yasutaka Matsuo, Hiromichi Ohta, “Electric Field Thermopower Modulation Analyses of Effective Channel Thickness of Amorphous InGaO<sub>3</sub>(ZnO)<sub>m</sub> Thin Film Transistors”, The 29th International Display Workshops (IDW '22), Fukuoka, Japan, December 14-16, 2022 (poster). **Certificate**



[3] **Prashant R. Ghediya**, "Copper tin sulphide (CTS) absorber for photovoltaic applications", National Science Day 2022, Marwadi University, Rajkot, India, 28 February 2022. **POSTER AWARD**

[2] **Prashant R. Ghediya**, "CuCdS<sub>2</sub> thin films for solar cells", Science Symposium – 2020 on Recent Trends in Science and Technology, Christ College, Rajkot, Gujarat, India, 19th January 2020. **BEST POSTER AWARD**

[1] **Prashant R. Ghediya**, Devendra Tiwari and Tapas K Chaudhuri, "Cu<sub>2</sub>ZnSnS<sub>4</sub> films deposited from paste for low-cost solar cells", XXVII Gujarat Science Congress – 2013, Charusat, Changa, 24 February, 2013. **BEST POSTER AWARD**