Co-Research

Research Entrusted by National Government and Public Institute

1. Core Research for Evolutionary Science and Technology Project (CREST) of Japan Science and Technology Agency (JST)
   Theme: Spin Measurement
   Project Number: JPMJCR9538
   Principal Researcher: Prof. Kouichi Mukasa of Faculty of Engineering, Hokkaido University
   My Role: Research Advisor
   Budget: ¥ 800 M
   Period: Apr. 1, 1997 to Mar. 31, 2001

2. Grant-in-Aid for Scientific Research B of Japan Society for the Promotion of Science (JSPS)
   Issue number: 16360008
   Theme: Analysis of Degradation Mechanism in Light-Emitting Devices of II-VI and III-V Wide-Gap Semiconductors and its Control
   Project Number: 16360008
   Principal Researcher: Prof. Koshi Ando of Tottori University
   My Role: Collaboration Researcher
   Budget: ¥ 11.3 M
   Period: Apr.1, 2004 to Mar. 31, 2007

3. Core Research for Evolutionary Science and Technology Project (CREST) of Japan Science and Technology Agency (JST)
   Specific Research Investigation: Nano Light-Emitting-Materials Research and their Device Fabrication
   Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research (IMR), Tohoku University
   Budget: ¥ 5 M
   Period: Oct. 1, 2005 to Mar. 31, 2006

4. Grant-in-Aid for Research on Creation of Functional Nanomaterials in Institute for Materials Research (IMR), Tohoku University
   Theme: Nano Light-Emitting-Materials Research and their Device Fabrication
   Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research, Tohoku University
   Budget: ¥ 10 M
   Period: Apr. 1, 2006 to Mar. 31, 2008

5. Core Research for Evolutionary Science and Technology Project (CREST) of Research Area "Photonics and Quantum Optics for the Creation of Innovative Functions", Japan Science and Technology Agency (JST)
   Theme: Research on InN Semiconductor Lasers with High Temperature-Stability for Optical Communications Systems
   Project Number: JPMJCR06J48
   Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research (IMR), Tohoku University
   Budget: ¥ 410 M
   Period: Oct. 1, 2006 to Mar. 31, 2012

6. Grant-in-Aid for Research of Iwate Industrial Research Institute
   Theme: Research on Fabrication of Nitride Thin Films with MOVPE and their Evaluation
   Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research (IMR), Tohoku University
   Budget: ¥ 1 M
   Period: Jan. 1, 2006 to Mar. 31, 2006

7. Grant-in-Aid for Commercialization-Feasibility Test of Research Plaza Miyagi, Japan Science and Technology Agency (JST)
   Theme: Establishment of Thin Film Fabrication Technology of High Quality InGaN Lattice-Matching to ZnO Substrate for Blue-Emitter
   Project Number: JST-PROJECT-7700009413
   Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research (IMR), Tohoku University
   Budget: ¥ 2 M
   Period: Oct. 1, 2006 to Feb. 28, 2007

8. 2009 Developmental Scientific Research A on Seeds Discover, Japan Science and Technology Agency (JST)
   Theme: Development of "Elemental Technology" for Nitride-Semiconductor Solar Cells with Super High Efficiency
   Project Number: JST-PROJECT-09157817
   Principal Researcher: Assistant Professor Yuhuai Liu of Institute for Materials Research (IMR), Tohoku University
   My Role: Advisor
   Budget: ¥ 2 M
   Period: Apr. 1, 2009 to Mar. 31, 2010

9. 2009 Developmental Scientific Research B (Expansion) on Seeds Discover, Japan Science and Technology Agency (JST)
   Theme: Establishment of High-Temperature Growth Technique of Green-Light-Emitting InGaN on ZNO Substrate with MOVPE
   Project Number: JST-PROJECT-09157896
   Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research (IMR), Tohoku University
   Budget: ¥ 5 M
   Period: Apr. 1, 2009 to Mar. 31, 2010

10. Core Research for Evolutionary Science and Technology Project (CREST) of Research Area "Creative Research for Clean Energy Generation using Solar Energy", Japan Science and Technology Agency (JST)
    Theme: High Efficiency Thin Film Solar Cells with Enhanced Optical Absorption by Excitons
    Project Number: JPMJCR09Q6
    Principal Researcher: Prof. Yoshiji Horikoshi of School of Advanced Science and Engineering, Waseda University
    My Role: Vice Principal Researcher
    Budget: ¥ 242.79 M
    Period: Oct. 1, 2006 to Mar. 31, 2015

11. Grant-in-Aid for Scientific Research C of Japan Society for the Promotion of Science (JSPS)
    Theme: Development of Red-Light-Emitting Layer Consisted of Nitride Semiconductor for Monolithic White Light Source
    Project Number: 23560356
    Principal Researcher: Assistant Professor Yuhuai Liu of Institute for Materials Research (IMR), Tohoku University
    My Role: Advisor
    Budget: ¥ 4.1 M
    Period: Apr.1, 2011 to Mar. 31, 2013

12. Adaptable and Seamless Technology Transfer Program through Target Driven R&D (A-Step), Feasibility Study Stage: Investigation-Type of Japan Science and Technology Agency (JST)
    Theme: Research and Development of "Elemental Technology" for Nitride-Semiconductor Solar Cells with Super High Efficiency on Si Substrate
    Project Number: JST-PROJECT-1110454
    Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research (IMR), Tohoku University
    Budget: ¥ 1.7 M
    Period: Dec. 1, 2011 to July 31, 2012

13. Grant-in-Aid for Scientific Research C of Japan Society for the Promotion of Science (JSPS)
    Project Number: 24560362
    Theme: Development of Red-Light-Emitting Layer for Realizing White Light Source Consisted of Only Nitride Semiconductors
    Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research (IMR), Tohoku University
    Budget: ¥ 4.98 M
    Period: Apr.1, 2012 to Mar. 31, 2015

14. Reconstruction Promotion Program A-STEP, Investigation-Type of Japan Science and Technology Agency (JST)
    Theme: Research on Quality Improvement of Epitaxially Grown GaN by Introducing Lattice-Matching ScAlMgO4 Substrate
    Project Number: JST-PROJECT-12101475
    Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research (IMR), Tohoku University
    Budget: ¥ 2.99 M
    Period: Oct. 1, 2012 to Sept. 30, 2013

15. Adaptable and Seamless Technology Transfer Program through Target Driven R&D (A-Step), Feasibility Study Stage: Investigation-Type of Japan Science and Technology Agency (JST)
    Theme: Practical Research on Epitaxial Growth of Indium-Rich InAlN for Device Applications of Nitride Semiconductors
    Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research (IMR), Tohoku University
    Budget: ¥ 1.7 M
    Period: Aug. 1, 2013 to Mar. 31, 2014

16. 2014 Research Program on Creation of Base Materials for Realization of Low-Carbon Society of Institute for Materials Research (IMR), Tohoku University
    Theme: Application of N-Polar InAlN Compound Semiconductors Grown with Low- and High-Pressure Metalorganic Vapor Phase Epitaxial Growth for High-Efficient Opt-Electronic Devices
    Principal Researcher: Assist. Prof. Shigeyuki Kuboya of Institute for Materials Research (IMR), Tohoku University
    My Role: Advisor
    Budget: ¥ 4 M
    Period: Apr. 1, 2014 to Mar. 31, 2016

17. Grant-in-Aid for Challenging Exploratory Research of Japan Society for the Promotion of Science (JSPS)
    Theme: Research on Fabrication Process of Vertical-Type Transistors consisted of Nitride Semiconductors on $ScAlMgO_4$ substrate
    Project Number: 15K13963
    Principal Researcher: Prof. Tetsuya Suemitsu of Research Institute of Electrical Communications (RIEC), Tohoku University
    My Role: Collaboration Researcher
    Budget: ¥ 3.9 M
    Period: Apr.1, 2015 to Mar. 31, 2017

18. 2015 Contributing to Society by Accelerating Innovation and Achieving Results in a Timely Manner of New Energy and Industrial Technology Development Organization (NEDO)
    Theme: Development of GaN-Based Substrate for LED with High Efficiency and Low Cost
    Type E/Practical Development Phase
    Principal Research Company: Panasonic Corporation
    My Role: Collaboration Researcher
    Budget: ¥ 405 M
    Period: Aug. 1, 2015 to Mar. 31, 2018

19. Grant-in-Aid for Scientific Research B of Japan Society for the Promotion of Science (JSPS)
    Project Number: 16H04341
    Theme: Growth Technique of Structure Generating Two-Dimensional Electron Gas by Nitride Semiconductors
    Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research (IMR), Tohoku University
    Budget: ¥ 16.25 M
    Period: Apr.1, 2016 to Mar. 31, 2018

20. Grant-in-Aid for Scientific Research B of Japan Society for the Promotion of Science (JSPS)
    Project Number: 16H04221
    Theme: Asymmetric-Waveguide-Coupled Multi-Striped Orthogonal Photo-Photocarrier-Propagation Solar Cell
    Principal Researcher: Prof. Akira Ishibashi of Research Institute for Electronic Science (RIES), Hokkaido University
    My Role: Co-Investigator
    Budget: ¥ 16.12M
    Period: Apr.1, 2016 to Mar. 31, 2019

21. Grant-in-Aid for Scientific Research B of Japan Society for the Promotion of Science (JSPS)
Theme: Crystal Growth of N-polar Nitride Semiconductor Heterostructures with Two-Dimensional Electron Gas
Project Number: 16H03857
Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research (IMR), Tohoku University
Budget: ¥ 12.5 M
Period: Apr.1, 2016 to Mar. 31, 2019

22. Outsourcing Research of Tohoku University
Theme: Research on Fabrication of Free-Standing GaN Wafer with Threading Dislocation less than $10^5/cm^2$ with HVPE Growth"
Principal Researcher: Małgorzata Iwińska of Institute of High Pressure Physics (Unipress), Polish Academy of Science
My Role: Collaborate Researcher and Advisor
Period: Oct. 1, 2022 to Mar. 31, 2024

Collaboration with Private Companies

1. Company A

Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research (IMR), Tohoku University
Period: Nov.24, 2005～Mar. 31, 2010
Budget: ¥ 23.05 M

2. Company B

Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research (IMR), Tohoku University
Period: Sept. 1, 2005～Mar. 31, 2009
Budget: ¥ 7 M

3. Company C

Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research (IMR), Tohoku University
Period: Jun. 28, 2011～Mar. 23, 2012
Budget: Nothing

4. Company D

Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research (IMR), Tohoku University
Period: Feb. 8, 2013～Mar. 31, 2018
Budget: Nothing

5. Company E

Principal Researcher: Lecturer Tomoyuki Tanikawa of Institute for Materials Research (IMR), Tohoku University
My role: Collaborator
Period: Apr. 1, 2013～Mar. 31, 2019
Budget: ¥ 3 M

6. Company F

Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research (IMR), Tohoku University

1st Period

Period: Apr. 1, 2015～Mar. 31, 2017
Budget: ¥ 33.619

2nd Period

Period: Apr. 1, 2017～Mar. 31, 2019
Budget: ¥ 59.702 M

3rd Period

Period: Apr.1, 2021～Mar. 31, 2023
Budget: ¥ 52.81 M

7. Company G

Principal Researcher: Prof. Takashi Matsuoka of Institute for Materials Research (IMR), Tohoku University

Period: Jul. 1, 2021～Jun. 30, 2023

Budget: ¥ 10.4 M

Engineering Guidance

Company H: Apr. 1, 2020～Mar. 31, 2022

Company Ⅰ: Jul. 1, 2021～Jun. 30, 2022