ZHENGHAO YIN

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https://fibomat.github.io/blog fibomat

RESEARCH

Broadband frequency entangled photon generation using silicon nitride ring cavities

with Prof. Shigeki Takeuchi

2017/10 – Present Kyoto University, Japan

We are collaborating with Yokoyama Lab at Kyushu Univ., and focusing on realization of on-chip high-intensity broadband entangled photon sources based on SiNx and other material platforms.

- study of phase matching condition for entangled photon source
- optical device nano-fabrication, especially high quality factor micro-ring resonators
- realization of long-time stable frequency-correlated photon pairs broadband

Integrated Quantum Photonics

with Prof. Xiaosong Ma

2015/09 – 2017/06 Nanjing University, China

My initial research interest in Malab was QKD and Bell states generation and finally turned into the integration of quantum optical devices.

- nano-fabrication based on commercial SOI/SiNOI wafers
- demonstration and automation of the integration photonics test system

EDUCATION

M.Eng. in electronics

Department of Electronic Science and Engineering, Graduate School of Engineering, Kyoto University

2017/10 – 2020/03

B.S. in Physics

Department of Physics, School of Physics, Nanjing University

2013/09 – 2017/06

SKILLS

Experimental

Nanofabrication | FDTD/FEM simulation | NI LabVIEW | Metalworking

Programming

Python | C/C++

Amateur

Web Dev | Linux/Unix

AWARDS

Second Prize
among the participating instruments of National Seminar for Demonstrative Physics

LANGUAGES

English ●●●●○
Japanese ●●●●○
German ●○○○○

CONFERENCES

Design and fabrication of a silicon nitride ring resonator for on-chip broadband entangled photon sources (oral)

The 80th JSAP Autumn Meeting 2019, JSAP-OSA Joint Symposia

2019/09 Sapporo, Japan

Research of CVD methods for impacts on dispersion in a SiNx ring resonator (oral & poster)

The 38th Electronic Materials Symposium

2019/10 Nara, Japan

On-chip broadband entangled photon sources using HICDG and SiN waveguide devices (poster)

EU-USA-Japan International Symposium on Quantum Technology

2019/12 Kyoto, Japan

REFEREES

Shigeki TAKEUCHI

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Vice Dean, Graduate School of Engineering
Professor, Department of Electronic Science and Engineering
Kyoto University

Takashi ASANO

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