# Graduate School of Engineering, Department of Electrical, Electronic and Information Engineering, Terahertz Photonics Area *Tonouchi Laboratory*

http://www.ile.osaka-u.ac.jp/research/thp/

Staff Professor : Masayoshi Tonouchi (tonouchi@ile.osaka-u.ac.jp) Associate professor : Hironaru Murakmai (hiro@ile.osaka-u.ac.jp) Associate professor : Iwao Kawayama (kawayama@ile.osaka-u.ac.jp)

Advanced novel devices & systems for ultrafast photonics and terahertz applications & material science

## [Research]

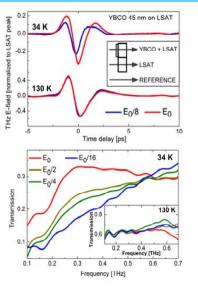
- Optical and terahertz functionality of strong correlated electron systems
- Superconductive photonic systems and devices
- Development of novel THz system
- Terahertz analyzing and imaging [Research Network]

Growing global young researchers through international research network



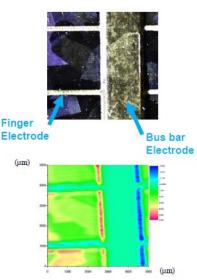
#### Non-linear effects of superconductor by intese THz wave

Evaluation of poly-silicon solar cells by laser THz emission microscope



## Non-linear transmittance of superconductor thin film

Superconducting pair breaking by intense THz wave



# THz image corresponding to the crystal boundary

Visualization of local electric power generation