



Volume 50, Number 6 (June 2022)

**The Review of Laser Engineering**

*Special Issue on Forefront of Ultrafast Mid-Infrared Pulse Generation Technology and Its Application to Material Science*

*Laser Compass*

Lasers and Teraphotonics –The Region Where Optical and Radio-Wave Technologies  
Converge–

*Hiroaki MINAMIDE (283)*

**Special Issue**

*Laser Review*

Preface to Special Issue on Forefront of Ultrafast Mid-Infrared Pulse Generation  
Technology and Its Application to Material Science *Satoshi ASHIHARA (284)*

Optical Parametric Amplification of Phase-Stable Multi-Terahertz Pulses Generated by  
Intra-Pulse Difference Frequency Generation (DFG)  
*Natsuki KANDA, Nobuhisa ISHII, Jiro ITATANI, and Ryusuke MATSUNAGA (286)*

Generation of Sub-Half-Cycle Mid-Infrared Pulses through Two-Color Filamentation  
*Takao FUJI (291)*

Development of Terawatt-Class High Power Mid-Infrared Laser Systems Using Optical  
Parametric Amplification *Eiji J. Takahashi (296)*

Extremely Nonlinear Optical Phenomena in Atomically Thin Materials from A Viewpoint  
of The Floquet State *Koichiro TANAKA, Kohei NAGAI, and Kento UCHIDA (302)*

Attosecond Electron Beam Control with Mid-Infrared Laser Pulses  
*Yuya MORIMOTO (308)*

Petahertz Current Control by Nearly Single-Cycle Light Pulse in an Organic  
Superconductor  
*Shinichiro IWAI, Yohei KAWAKAMI, Hirotake ITOH, and Kenji YONEMITSU (313)*

**Regular Paper**

*Laser Original*

Development of Remote Laser-Induced Breakdown Spectroscopy Technique for Salt  
Damage Assessment in Concrete Structures  
*Toshihiro SOMEKAWA, Michiyoshi NAGOYA, and Masayuki FUJITA (318)*

*Laser Flash*

*Introduction of  
Laser Laboratories (322)*

*Authors' Biographies (323)*

*Self Focus (326)*

*Laser Calendar (332)*

*Laser Words (290, 295, 301, 312, 317)*

**THE LASER SOCIETY OF JAPAN**

**2-6 Yamadaoka, Suita, Osaka 565-0871**

**TEL +81-6-6878-3070 FAX +81-6-6878-3088**