

レーザー研究

第42巻第2号(2014年2月)

「欧州における超高出力レーザー開発の最前線」特集号

レーザーコンパス 温故知新 大坪 順次 (105)
創立40周年特別解説 高強度光電磁場が拓く物理と光源開発 近藤 公伯 (106)

特集

レーザー解説 The Frontier of Ultrahigh Power Lasers in Europe Toshiki TAJIMA (111)
欧州における先端レーザー施設 植田 憲一 (113)
欧州における超高出力レーザーを使った物質・プラズマ・真空の研究と新展開 村上 匡且 (120)

Extreme Light Infrastructure – Nuclear Physics
A New Research Infrastructure at the Interface of Laser and Subatomic Physics
Daniel URSESCU, Ovidiu TESILEANU, Mihail O. CERNAIANU, Sydney GALES, and Nicolae V. ZAMFIR (123)

Apollon-10P Facility
Catherine LE BLANC, Dimitrios PAPADOPOULOS, Gilles CHÉRIAUX, Patrick GEORGES, Ji-Ping ZOU, Gabriel MENNERAT, Frederic DRUON, Alain PELLÉGRINA, Patricia RAMIREZ, Fabio GIAMBRUNO, Antoine FRÉNEAUX, Frédéric LECONTE, Doina BADARAU, Jean-Michel BOUDENNE, Patrick AUDEBERT, Dominique FOURNET, Thomas VALLOTON, Caroline GRÈVERIE, Jean-Luc PAILLARD, Jean-Luc VÉRAY, Michaël PINA, Pascal MONOT, Philippe MARTIN, François MATHIEU, Jean-Paul CHAMBARET, and François AMIRANOFF (127)

Overview of the Laser Mega Joule (LMJ) Facility and PETAL Project in France
Jean-Luc MIQUEL, Dimitri BATANI, and Nathalie BLANCHOT (131)

Design Considerations for a High Energy Front-End for a High Power OPCPA Laser Facility
Marco GALIMBERTI, Ian MUSGRAVE, Alexis BOYLE, Cristina HERNANDEZ-GOMEZ, Trevor WINSTONE, Waseem SHAIKH, Adam WYATT, Dave PEPLER, Ian ROSS, Andrey LYACHEV, and John COLLIER (137)

Prospects of PEARL 10 and XCELS Laser Facilities
Andrey SHAYKIN, Igor KOSTYUKOV, Alexander SÉRGEEV, and Efim KHAZANOV (141)

HiLASE: Development of Fully Diode-Pumped, kW-Class Pulsed Lasers for High-Tech Applications
Tomas MOCEK, Akira ENDO, Antonio LUCIANETTI, and Danijela ROSTOHAR (145)

Overview of the International Coherent Amplifying Network (ICAN)
William S. BRÖCKLESBY, Gerard MOUROU, Toshiki TAJIMA, and Jens LIMPERT (149)

レーザーオリジナル 半導体励起固体レーザーで構成される繰返し1 Hz級レーザー核融合
ドライバー-HAMA 森 芳孝, 関根 尊史, 米田 修, 西村 靖彦,
三浦 永祐, 中山 師生, 石井 勝弘, 花山 良平, 佐藤 伸弘,
栗田 隆史, 川嶋 利幸, 菅 博文, 中村 直樹, 近藤 拓也, 藤根 学,
掛布 光孝, 大島 繁樹, 東 博純, 日置 辰視, 梶野 勉, 元廣 友美,
砂原 淳, 千徳 靖彦, 北川 米喜 (154)

Observation of Preformed Plasma Generated from a Thin-Foil Target for Laser-Driven Proton Acceleration
Akito SAGISAKA, Alexander S. PIROZHKOV, Mamiko NISHIUCHI, Koichi OGURA, Hironao SAKAKI, Akifumi YOGO, Michiaki MORI, Hiromitsu KIRIYAMA, Hajime OKADA, Shuhei KANAZAWA, Shuji KONDO, Takuya SHIMOMURA, Yoshiki NAKAI, Manabu TANOUE, Hiroyuki DAIDO, Timur Zh. ESIRKEPOV, Sergei V. BULANOV, Paul R. BOLTON, and Kiminori KONDO (160)

汎用放射線挙動解析コードのレーザー駆動イオン加速研究への適用
榊 泰直, 佐藤 達彦, 甲斐 哲也 (163)

CR-39を用いたレーザー駆動陽子線計測における光中性子起因エッチビット
弁別手法の開発 金崎 真聡, 福田 祐仁, 近藤 公伯, 小田 啓二, 山内 知也 (168)

Possibility of Radiation Reaction Observation under Ultraintense Laser
Keita SETO, James KOGA, and Sen ZHANG (174)

サブエクサワット級を目指した超高強度レーザーの概念設計
「激光エクサ」と基盤技術研究の現状 河仲 準二, 吉田 英次, 橋本 孝治,
藤岡 加奈, 村上 英利, 藤本 靖, 宮永 憲明, 疇地 宏 (179)

レーザーフラッシュ OSA's 97th Annual Meeting 会議報告
- Frontiers in Optics 2013 & Laser Science XXIX - 田邊 孝純, 三浦 永祐 (188)

著者紹介 (191)

セルフフォーカス (196)

レーザーカレンダー (201)

一般社団法人 レーザー学会

〒565-0871 大阪府吹田市山田丘2-6

TEL 06-6878-3070 FAX 06-6878-3088

Volume 42, Number 2 (February 2013)

The Review of Laser Engineering

Special Issue on Frontier of Ultra-High Power Lasers in Europe

Laser Compass	Learning from the Past	Junji OHTSUBO (105)
Special Laser Review for the 40th Anniversary	Physics Explored by Intense Optical High Field and Source Development	Kiminori KONDO (106)

Special Issue

Laser Review	The Frontier of Ultrahigh Power Lasers in Europe	Toshiki TAJIMA (111)
	High Power Laser Facilities in Europe	Ken-ichi UEDA (113)
	European Projects to Study Matter, Plasma, and Vacuum with Extremely Intense Laser	Masakatsu MURAKAMI (120)
	Extreme Light Infrastructure – Nuclear Physics	
	A New Research Infrastructure at the Interface of Laser and Subatomic Physics	Daniel URSESCU, Ovidiu TESILEANU, Mihail O. CERNĂIANU, Sydney GALES, and Nicolae V. ZAMFIR (123)
	Apollon-10P Facility	Catherine LE BLANC, Dimitrios PAPAPOPOULOS, Gilles CHÉRIAUX, Patrick GEORGES, Ji-Ping ZOU, Gabriel MENNERAT, Frederic DRUON, Alain PELLEGRINA, Patricia RAMIREZ, Fabio GIAMBRUNO, Antoine FRENEAUX, Frédéric LECONTE, Doina BADARAU, Jean-Michel BOUDENNE, Patrick AUDEBERT, Dominique FOURNET, Thomas YALLOTON, Caroline GREVERIE, Jean-Luc PAILLARD, Jean-Luc VERAY, Michaël PINA, Pascal MONOT, Philippe MARTIN, François MATHIEU, Jean-Paul CHAMBARET, and François AMIRANOFF (127)
	Overview of the Laser Mega Joule (LMJ) Facility and PETAL Project in France	Jean-Luc MIQUEL, Dimitri BĀTANI, and Nathalie BLANCHOT (131)
	Design Considerations for a High Energy Front-End for a High Power OPCPA Laser Facility	Marco GALIMBERTI, Ian MUSGRAVE, Alexis BOYLE, Cristina HERNANDEZ-GOMEZ, Trevor WINSTONE, Waseem SHAIKH, Adam WYATT, Dave PEPLER, Ian ROSS, Andrey LYACHEV, and John COLLIER (137)
	Prospects of PEARL 10 and XCELS Laser Facilities	Andrey SHAYKIN, Igor KOSTYUKOV, Alexander SERGEEV, and Efim KHAZANOV (141)
	HiLASE: Development of Fully Diode-Pumped, kW-Class Pulsed Lasers for High-Tech Applications	Tomas MOCEK, Akira ENDO, Antonio LUCIANETTI, and Danijela ROSTOHAR (145)
	Overview of the International Coherent Amplifying Network (ICAN)	William S. BROCKLESBY, Gerard MOUROU, Toshiki TAJIMA, and Jens LIMPERT (149)
Laser Original	Repetitive 1 Hz Fast-Heating Fusion Driver HAMA Pumped by Diode Pumped Solid State Laser	Yoshitaka MORI, Takashi SEKINE, Osamu KOMEDA, Yasuhiko NISHIMURA, Eisuke MIURA, Suisei NAKAYAMA, Katsuhiko ISHII, Ryohei HANAYAMA, Nakahiro SATOH, Takashi KURITA, Toshiyuki KAWASHIMA, Hirohumi KAN, Naoki NAKAMURA, Takuya KONDO, Manabu FUJINE, Mitsutaka KAKENO, Shigeki OHSHIMA, Hirozumi AZUMA, Tatsumi HIOKI, Tutomu KAJINO, Tomoyoshi MOTOHIRO, Atsushi SUNAHARA, Yasuhiko SENTOKU, and Yoneyoshi KITAGAWA (154)
	Observation of Preformed Plasma Generated from a Thin-Foil Target for Laser-Driven Proton Acceleration	Akito SAGISAKA, Alexander S. PIROZHKOV, Mamiko NISHIUCHI, Koichi OGURA, Hironao SAKAKI, Akifumi YOGO, Michiaki MORI, Hiromitsu KIRIYAMA, Hajime OKADA, Shuhei KANAZAWA, Shuji KONDO, Takuya SHIMOMURA, Yoshiki NAKAI, Manabu TANOUE, Hiroyuki DAIDO, Timur Zh. ESIRKEPOV, Sergei V. BULANOV, Paul R. BOLTON, and Kiminori KONDO (160)
	Application of General-Purpose Radiation Transport Code into Laser-Produced Plasma Ions Acceleration	Hironao SAKAKI, Tatsuhiko SATO, and Tetsuya KAI (163)
	Discrimination Method of Etch Pits Created by Laser-Accelerated Protons and Recoiled Protons by Photo-Neutrons Using CR-39	Masato KANASAKI, Yuji FUKUDA, Kiminori Kondo, Keiji ODA, and Tomoya YAMAUCHI (168)
	Possibility of Radiation Reaction Observation under Ultraintense Laser	Keita SETO, James KOGA, and Sen ZHANG (174)
	Conceptual Design of a Sub-Exa-Watts Laser System “GEKKO-EXA”	Junji KAWANAKA, Hidetsugu YOSHIDA, Koji TSUBAKIMOTO, Kana FUJIOKA, Hidetoshi MURAKAMI, Yasushi FUJIMOTO, Noriaki MIYANAGA, and Hiroshi AZECHI (179)
Laser Flash	Report on OSA’s 97th Annual Meeting	Takasumi TANABE and Eisuke MIURA (188)
Authors’ Biographies		(191)
Self Focus		(196)
Laser Calendar		(201)

THE LASER SOCIETY OF JAPAN

2-6 Yamadaoka, Suita, Osaka 565-0871

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