

PROCEEDINGS OF SPIE

High Energy/Average Power Lasers and Intense Beam Applications VII

**Steven J. Davis
Michael C. Heaven
J. Thomas Schriempf**
Editors

**2 and 4 February 2014
San Francisco, California, United States**

Sponsored and Published by
SPIE

Volume 8962

Proceedings of SPIE 0277-786X, V. 8962

SPIE is an international society advancing an interdisciplinary approach to the science and application of light.

High Energy/Average Power Lasers and Intense Beam Applications VII, edited by
Steven J. Davis, Michael C. Heaven, J. Thomas Schriempf, Proc. of SPIE Vol. 8962, 896201
© 2014 SPIE · CCC code: 0277-786X/14/\$18 · doi: 10.1117/12.2062795

Proc. of SPIE Vol. 8962 896201-1

The papers included in this volume were part of the technical conference cited on the cover and title page. Papers were selected and subject to review by the editors and conference program committee. Some conference presentations may not be available for publication. The papers published in these proceedings reflect the work and thoughts of the authors and are published herein as submitted. The publisher is not responsible for the validity of the information or for any outcomes resulting from reliance thereon.

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Author(s), "Title of Paper," in *High Energy/Average Power Lasers and Intense Beam Applications VII*, edited by Steven J. Davis, Michael C. Heaven, J. Thomas Schriempf, Proceedings of SPIE Vol. 8962 (SPIE, Bellingham, WA, 2014) Article CID Number.

ISSN: 0277-786X

ISBN: 9780819498755

Published by

SPIE

P.O. Box 10, Bellingham, Washington 98227-0010 USA

Telephone +1 360 676 3290 (Pacific Time) · Fax +1 360 647 1445

SPIE.org

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Printed in the United States of America.

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Introduction

We had a very full and productive conference with a good mix of papers and several international speakers. The Conference focused on gas-phase lasers and some high power laser interactions. We began with a short informal session that summarized the history of gas lasers over the last 50 years. That was followed by several papers that described a new class of gas lasers: Optically Pumped Rare Gas Lasers. This new approach complements the rapidly growing area of Diode Laser Pumped Alkali Lasers known as DPAL that was first announced at our meeting in 2003. DPAL was well represented as this system continues to develop. We believe that both these systems have potential for high power scaling and applications. We also had presentations that described advances in narrow band diode lasers that can serve as excitation sources for DPAL and perhaps the rare gas systems. Another relatively new gas laser, the Electric Oxygen Iodine Laser was also discussed. Finally, several papers were presented that described novel applications of high power lasers: One of these discussed the design and ongoing construction of an ultra-high power laser facility in Prague that will be available for researchers from around the world. The laser sources at this facility will be available for basic laser physics and laser materials interactions including biological studies.

In summary, we were very pleased with the program and the attendance. The discussions at the sessions were very productive, and we look forward to future conferences.

Steven J. Davis
Michael C. Heaven
J. Thomas Schriempf

