

First Author: STEVENS-RE*.

Other Authors: KUNG-CY.
KITTRELL-C.
KINSEY-JL.

Corp. Source: RICE UNIV, DEPT CHEM, POB 1892, HOUSTON, TX, 77251
(*reprints)

RICE UNIV, RICE QUANTUM INST, HOUSTON, TX, 77251

Article Title: A SIMPLE AND EFFICIENT EXTERNAL GAS FILTRATION AND TRAPPING
SYSTEM FOR EXCIMER LASERS

Journal Source: REVIEW OF SCIENTIFIC

INSTRUMENTS, Volume: 65, Issue: 8, Issue

Date: AUG, Publication Year: 1994, Pages: 2464-2469

Language: EN: ENGLISH.

Document Type: 3: ARTICLE.

Abstract: Excimer lasers are excellent sources of coherent light in the ultraviolet range of the spectrum. However, they have the drawback of requiring significant maintenance due to the corrosive gases, generation of dust, and contamination of the laser chamber optics which occur during normal operation. Improvements which are generally applicable to any excimer laser system are specifically described in terms of the two Questek (Lambda Physik, Acton, MA) model 2860 lasers in our lab. The same basic procedures are currently being implemented in two Lambda lasers in other research groups at our university. A novel gas triple filtration system, a simple cold trap with a counter-flow heat exchanger, and a careful selection of valves have been added to minimize dust contamination of the optics, to decrease contamination and leakage of the gas fill, to provide safe and easy dust removal, and to reduce maintenance downtime.

Product Code: S

T

Subject Cat.: UB: PHYSICS, APPLIED. OA: INSTRUMENTS & INSTRUMENTATION.

KeyWords Plus: DISCHARGE.

Number of References: 14

Entry Date (YYYYMMDD): 19941025

Genuine Article Number: PC319
