

# **A Real-Time On-Line Measurement of Iodine Flow Rate Based on Absorption Spectroscopy**

**Guofu Li**<sup>1</sup>, Fengting Sang and Liping Duo

Dalian Institute of Chemical Physics, China

Iodine flow rate (IFR) measurement is an essential diagnostic tool in the research and optimization of chemical oxygen-iodine laser (COIL) system. Venturi meter and absorption spectroscopy was used to monitor IFR. But it is difficult for Venturi meter to precisely measure IFR. Simple absorption spectroscopy has trouble monitoring IFR due to the contamination on diagnostic windows. An advanced absorption spectroscopy for measuring IFR was described in this paper. It can easily eliminate the influence of the contamination on IFR measurement and obtain a precise IFR. The method has been used in COIL.

---

<sup>1</sup> E-mail: ligf@dicp.ac.cn