

## Ionic Charge State Distribution of Au Plasma for 7-Ion System

CHENG Ke,<sup>1,2</sup> ZHU Zheng-He,<sup>1</sup> TANG Chang-Huan,<sup>3</sup> TANG Yong-Jian,<sup>3</sup> and FU Yi-Bei<sup>3</sup>

<sup>1</sup> Institute of Atomic and Molecular Physics, Sichuan University, Chengdu 610065, China

<sup>2</sup> School of Physics Science and Technology, Yangtze University, Jingzhou 434100, China

<sup>3</sup> China Academy of Engineering Physics, Mi anyang 621900, China

(Received: 2005-6-20; Revised: )

**Abstract:** The present work extends the previous work on 5-ion system to consider 7-ion system (i.e.,  $Au^{47+} \sim Au^{53+}$ ). It is found that more highly charged ions, e.g.,  $Au^{53+}$ ,  $Au^{54+}$  etc., could be able to be neglected, however, less highly charged ions, e.g.,  $Au^{47+}$ ,  $Au^{46+}$  etc., are rather important. Therefore, a new idea to consider 8-ion system, i.e.,  $Au^{46+} \sim Au^{53+}$ , is under way. As a supplement, we discuss the simultaneous reaction, which would be important in this sort of works.

PACS: 52.25.Jm

Key words: Au plasma, 7-ion system, simultaneous reaction process

[\[Full text: PDF\]](#)

Close