

A

## 液滴法成球过程模拟计算软件

@邱龙会\$中国工程物理研究院激光聚变研究中心!四川绵阳621900 @傅依备\$中国工程物理研究院激光聚变研究中心!四川绵阳621900 @王永川\$中国工程物理研究院激光聚变研究中心!四川绵阳621900 @魏芸\$中国工程物理研究院激光聚变研究中心!四川绵阳621900 @师韬\$中国工程物理研究院激光聚变研究中心!四川绵阳621900

收稿日期 2001-8-25 修回日期 网络版发布日期:

**摘要** 根据液滴法制备空心玻璃微球的成球过程数学模型,用Delphi 5.0计算机语言编写了对应的模拟计算软件。该软件能够模拟计算成球过程中液滴/球壳的大小、下落速率、下落时间、壁厚、内气压等参数及其随操作条件改变的定量变化。初步实验表明:模拟计算结果与实验结果基本符合

**关键词** [液滴法](#) [空心玻璃微球](#) [成球过程](#) [计算软件](#)

**分类号** [TL63911](#)

## A Software for Calculating the Fabrication Process of Hollow Glass Microspheres by Liquid Droplet Method

QIU Long hui, FU Yi bei, WANG Yong chuan, WEI Yun, SHI Tao (Research Center of Laser Fusion, China Academy of Engineering Physics, Mianyang 621900, China)

**Abstract** According to the mathematical model of the formation process of hollow glass microspheres (HGM) fabricated by liquid droplet method, a simulation software, which runs in Win98 system, is compiled in computer language of Delphi5.0. It can be used to calculate the changes with the process conditions of a single liquid/shell's dropping velocities, outer diameters, wall thicknesses, inner gas pressures, and time at any point in the furnace in the whole process or at any forming stage. Experiments are designed to test the rationality of the software. And the calculated results are in good agreement with the experimental.

**Key words** [liquid droplet method](#) [hollow glass microsphere](#) [target fabrication](#) [simulation software](#)

DOI

通讯作者

### 扩展功能

#### 本文信息

- ▶ [Supporting info](#)
- ▶ [\[PDF全文\]\(109KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

#### 服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

#### 相关信息

- ▶ [本刊中 包含“液滴法”的 相关文章](#)
- ▶ [本文作者相关文章](#)