

专刊

Possible heavy dibaryons

丁亦兵¹, 曾卓全^{2,5}, 沈彭年^{2,3,4}, 郭新恒⁵, 李学潜⁶

¹ Graduate University of Chinese Academy of Sciences, Beijing 100049, China

² Institute of High Energy Physics, CAS, Beijing 100049, China

³ Department of Physics, Guangxi Normal University, Guilin 541004, China

⁴ Center of Theoretical Nuclear Physics, National Laboratory of Heavy Ion Accelerator, Lanzhou 730000, China

⁵ College of Nuclear Science and Technology, Beijing Normal University, Beijing 100875, China

⁶ School of Physics, Nankai University, Tianjin 300047, China

收稿日期 2009-8-27 修回日期 2009-10-9 网络版发布日期 2010-1-5 接受日期 2010-1-5

摘要

In the framework of the constituent quark model, the possible S-wave heavy dibaryon states with the c flavor are investigated. The factors which are responsible for the binding behavior of the dibaryon system are analyzed. It is shown that both the symmetry character of the system and the energy of interactions between interacting quarks are important for the binding behavior of the two-baryon system with the heavy flavor. As a result, seven possible candidates of heavy dibaryons with c flavor are predicted.

关键词 [constituent quark model](#), [heavy baryon](#), [dibaryon](#)

分类号

DOI:

通讯作者:

沈彭年 shenpn@ihep.ac.cn

作者个人主页:

丁亦兵¹; 曾卓全^{2,5}; 沈彭年^{2,3,4}; 郭新恒⁵; 李学潜⁶

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF](#) (101KB)

▶ [\[HTML全文\]](#) (0KB)

▶ [参考文献\[PDF\]](#)

▶ [参考文献](#)

服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [引用本文](#)

▶ [Email Alert](#)

相关信息

▶ [本刊中 包含 “constituent quark model, heavy baryon, dibaryon” 的 相关文章](#)

▶ 本文作者相关文章

· [丁亦兵](#)

· [曾卓全](#)

·

· [沈彭年](#)

·

· [郭新恒](#)

· [李学潜](#)