

Abstract Submitted  
for the DAMOP16 Meeting of  
The American Physical Society

**Polarized Ytterbium with orbital Feshbach resonance** SU WANG,  
ZHENGWEI ZHOU, Univ of Sci Tech of China, ZHENGWEI ZHOU TEAM —  
Orbital Feshbach resonance make progress for Feshbach resonance on alkaline earth  
atoms. It urge us to control the interaction of alkaline earth atoms using magnetic  
field without optical heating. In this work, we research the polarized Ytterbium  
gases with orbital Feshbach resonance. The gases have normal, superfluid, breach  
pair double, breach pair open phases in BEC region. It only have normal, and  
superfluid phases in BCS region. We also plot the particle number fixed phase  
diagrams. The gases have the phase separation region and normal phase region.

Su Wang  
Univ of Sci  
Tech of China

Date submitted: 28 Jan 2016

Electronic form version 1.4