

**E167A (SKY) R.Hayano**  
**Search for a  $\Sigma$  Hypernuclear Ground State by Kaon Absorption on  $^4\text{He}$**

Submitted	(1988.1.21)
Approved	1988.2.26
Beam line	K3
Shift requested	100
Shift executed	84.1
Executed cycles	88[1,3,5,12,13]

**Papers and activities**

[Legend]

- Physics papers published in refereed journal
- Technical papers
- ★ PhD theses
- ◇ Conference and Symposium
- \* Internal Report and others

- R.S.Hayano et al.  
Evidence for a Bound State of  $^4_\Sigma\text{He}$  Hypernucleus  
Phys.Lett.B231 (1989) 355.
- R.S.Hayano et al.  
 $\Sigma$  Hypernuclear Bound State Observed in Stopped  $K^-$  Reaction on  $^4\text{He}$   
Nuovo Cimento 102A (1989) 437.
- T.Yamazaki et al.  
Trapping of Negative Kaons by Metastable States During the Atomic Cascade in Liquid Helium  
Phys.Rev.Lett.63 (1989) 1590.
- R.S.Hayano  
Production and Structure of Light  $\Sigma$  Hypernuclei  
Nucl. Phys. A 508(1990) 99.
- R.S.Hayano  
Light  $\Sigma$  Hypernuclei  
Nucl. Phys. A 527 (1991) 477.
- H.Outa et al.  
Lifetime Measurement of  $^4_\Lambda\text{H}$  Hypernucleus  
Nucl.Phys.A547 (1992) 109.
- R.S.Hayano  
 $^4\text{He}$  ( $K^-$ ,  $\pi^+$ ) Experiments at KEK and BNL  
Nucl.Phys.A547 (1992) 151.

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