

# Σ(2455) Bumps

$I(J^P) = 1(?^?)$  Status: \*\*

OMITTED FROM SUMMARY TABLE

There is also some slight evidence for  $Y^*$  states in this mass region from the reaction  $\gamma p \rightarrow K^+ X$  — see GREENBERG 68.

## Σ(2455) MASS

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b>≈ 2455 OUR ESTIMATE</b>			
2455 ± 10	ABRAMS	70 CNTR	$K^- p, K^- d$ total
2455 ± 7	BUGG	68 CNTR	$K^- p, K^- d$ total

## Σ(2455) WIDTH

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
140	ABRAMS	70 CNTR	$K^- p, K^- d$ total
100 ± 20	BUGG	68 CNTR	

## Σ(2455) DECAY MODES

Mode
$\Gamma_1 \quad N\bar{K}$

## Σ(2455) BRANCHING RATIOS

$(J+\frac{1}{2}) \times \Gamma(N\bar{K}) / \Gamma_{\text{total}}$	DOCUMENT ID	TECN	COMMENT	$\Gamma_1 / \Gamma$
0.39	ABRAMS	70 CNTR	$K^- p, K^- d$ total	
0.05 ± 0.05	<sup>1</sup> BRICMAN	70 CNTR	Total, charge exchange	
0.3	BUGG	68 CNTR		

## Σ(2455) FOOTNOTES

<sup>1</sup> Fit of total cross section given by BRICMAN 70 is poor in this region.

## Σ(2455) REFERENCES

ABRAMS	70	PR D1 1917	R.J. Abrams <i>et al.</i>	
Also	67E	PRL 19 678	R.J. Abrams <i>et al.</i>	(BNL) I
BRICMAN	70	PL 31B 152	C. Bricman <i>et al.</i>	(BNL)
BUGG	68	PR 168 1466	D.V. Bugg <i>et al.</i>	(CERN, CAEN, SACL)
GREENBERG	68	PRL 20 221	J.S. Greenberg <i>et al.</i>	(RHEL, BIRM, CAVE) I
				(YALE)