

# $K_0^*(1950)$

$$I(J^P) = \frac{1}{2}(0^+)$$

OMITTED FROM SUMMARY TABLE

Seen in partial-wave analysis of the  $K^- \pi^+$  system. Needs confirmation.

## $K_0^*(1950)$ MASS

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>CHG</u>	<u>COMMENT</u>
<b>1945 ± 10 ± 20</b>	<sup>1</sup> ASTON	88	LASS	0 11 $K^- p \rightarrow K^- \pi^+ n$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
1917 ± 12	<sup>2</sup> ZHOU	06	RVUE	$K p \rightarrow K^- \pi^+ n$
1820 ± 40	<sup>3</sup> ANISOVICH	97C	RVUE	11 $K^- p \rightarrow K^- \pi^+ n$

<sup>1</sup> We take the central value of the two solutions and the larger error given.

<sup>2</sup> S-matrix pole. Using ASTON 88 and assuming  $K_0^*(700)$ ,  $K_0^*(1430)$ .

<sup>3</sup> T-matrix pole. Reanalysis of ASTON 88 data.

## $K_0^*(1950)$ WIDTH

<u>VALUE (MeV)</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>CHG</u>	<u>COMMENT</u>
<b>201 ± 34 ± 79</b>	<sup>4</sup> ASTON	88	LASS	0 11 $K^- p \rightarrow K^- \pi^+ n$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
145 ± 38	<sup>5</sup> ZHOU	06	RVUE	$K p \rightarrow K^- \pi^+ n$
250 ± 100	<sup>6</sup> ANISOVICH	97C	RVUE	11 $K^- p \rightarrow K^- \pi^+ n$

<sup>4</sup> We take the central value of the two solutions and the larger error given.

<sup>5</sup> S-matrix pole. Using ASTON 88 and assuming  $K_0^*(700)$ ,  $K_0^*(1430)$ .

<sup>6</sup> T-matrix pole. Reanalysis of ASTON 88 data.

## $K_0^*(1950)$ DECAY MODES

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $K \pi$	(52 ± 14) %

## $K_0^*(1950)$ BRANCHING RATIOS

$\Gamma(K\pi)/\Gamma_{\text{total}}$	$\Gamma_1/\Gamma$			
<u>VALUE</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>CHG</u>	<u>COMMENT</u>
<b>0.52 ± 0.08 ± 0.12</b>	<sup>7</sup> ASTON	88	LASS	0 11 $K^- p \rightarrow K^- \pi^+ n$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
~ 0.60	<sup>8</sup> ZHOU	06	RVUE	$K p \rightarrow K^- \pi^+ n$
<sup>7</sup> We take the central value of the two solutions and the larger error given.				
<sup>8</sup> S-matrix pole. Using ASTON 88 and assuming $K_0^*(700)$ , $K_0^*(1430)$ .				

## $K_0^*$ (1950) REFERENCES

ZHOU	06	NP A775 212	Z.Y. Zhou, H.Q. Zheng
ANISOVICH	97C	PL B413 137	A.V. Anisovich, A.V. Sarantsev
ASTON	88	NP B296 493	D. Aston <i>et al.</i> (SLAC, NAGO, CINC, INUS)

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