

**$K_0^*(1950)$** 

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

OMITTED FROM SUMMARY TABLE

Seen in partial-wave analysis of the  $K^- \pi^+$  system. Needs confirmation. **$K_0^*(1950)$  MASS**

VALUE (MeV)	DOCUMENT ID	TECN	CHG	COMMENT
<b><math>1945 \pm 10 \pm 20</math></b>	<sup>1</sup> ASTON	88	LASS	0 11 $K^- p \rightarrow K^- \pi^+ n$
$1917 \pm 12$	<sup>2</sup> ZHOU	06	RVUE	$K p \rightarrow K^- \pi^+ n$
$1820 \pm 40$	<sup>3</sup> ANISOVICH	97C	RVUE	11 $K^- p \rightarrow K^- \pi^+ n$

• • • We do not use the following data for averages, fits, limits, etc. • • •

<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**

VALUE (MeV)	DOCUMENT ID	TECN	CHG	COMMENT
<b><math>201 \pm 34 \pm 79</math></b>	<sup>4</sup> ASTON	88	LASS	0 11 $K^- p \rightarrow K^- \pi^+ n$
$145 \pm 38$	<sup>5</sup> ZHOU	06	RVUE	$K p \rightarrow K^- \pi^+ n$
$250 \pm 100$	<sup>6</sup> ANISOVICH	97C	RVUE	11 $K^- p \rightarrow K^- \pi^+ n$

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<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 ( $\Gamma_i/\Gamma$ )
$\Gamma_1$ $K^- \pi^+$	$(52 \pm 14) \%$

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

$\Gamma(K^- \pi^+)/\Gamma_{\text{total}}$	DOCUMENT ID	TECN	CHG	COMMENT	$\Gamma_1/\Gamma$
<b><math>0.52 \pm 0.08 \pm 0.12</math></b>	<sup>7</sup> ASTON	88	LASS	0 11 $K^- p \rightarrow K^- \pi^+ n$	
$\sim 0.60$	<sup>8</sup> ZHOU	06	RVUE	$K p \rightarrow K^- \pi^+ n$	

• • • We do not use the following data for averages, fits, limits, etc. • • •

<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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