$K_0^*(1950)$

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

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*
1945±10±20	[1] ASTON	88	LASS	0	11 $K^-p \to K^-\pi^+n$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1917±12	[2] ZHOU	06	RVUE		$Kp \to K^-\pi^+n$
1820±40	[3] ANISOVICH	97C	RVUE		11 $K^-p \to K^-\pi^+n$

[1] We take the central value of the two solutions and the larger error given.
[2] S-matrix pole. Using ASTON 88 and assuming $K_0^*(700)$, $K_0^*(1430)$.
[3] T-matrix pole. Reanalysis of ASTON 88 data.

$K_0^*(1950)$ WIDTH

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
201± 34±79	[4] ASTON	88	LASS	0	11 $K^-p \to K^-\pi^+n$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
145± 38	[5] ZHOU	06	RVUE		$Kp \to K^-\pi^+n$
250±100	[6] ANISOVICH	97C	RVUE		11 $K^-p \to K^-\pi^+n$

[4] We take the central value of the two solutions and the larger error given.
[5] S-matrix pole. Using ASTON 88 and assuming $K_0^*(700)$, $K_0^*(1430)$.
[6] T-matrix pole. Reanalysis of ASTON 88 data.

$K_0^*(1950)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$K^-\pi^+$	(52±14) %

$K_0^*(1950)$ BRANCHING RATIOS

$\Gamma(K^-\pi^+)/\Gamma_{total}$ **Γ_1/Γ**

VALUE	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
0.52±0.08±0.12	[7] ASTON	88	LASS	0	11 $K^-p \to K^-\pi^+n$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
∼ 0.60	[8] ZHOU	06	RVUE		$Kp \to K^-\pi^+n$

[7] We take the central value of the two solutions and the larger error given.
[8] 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 *et al.*	(SLAC, NAGO, CINC, INUS)