# $K_0^*(1950)$

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

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 $K_0^*(800)$, $K_0^*(1430)$.
[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 $K_0^*(800)$, $K_0^*(1430)$.
[6] 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

**$\Gamma(K\pi)/\Gamma_{total}$** **$\Gamma_1/\Gamma$**

| 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 $K_0^*(800)$, $K_0^*(1430)$.

## $K_0^*(1950)$ 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) |