K^0

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

K^0 MASS

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
497.672±0.031 OUR FIT					
497.672±0.031 OUR AVERAGE					
497.661±0.033	3713	BARKOV	87B	CMD	$e^+e^- \rightarrow K^0_L K^0_S$
497.742±0.085	780	BARKOV	85B	CMD	$e^+e^- \rightarrow K^0_L K^0_S$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
497.44 ±0.50		FITCH	67	OSPK	
498.9 ±0.5	4500	BALTAY	66	HBC	K^0 from $\overline{p}p$
497.44 ±0.33	2223	KIM	65B	HBC	K^0 from $\overline{p}p$
498.1 ±0.4		CHRISTENS...	64	OSPK	

$m_{K^0} - m_{K^\pm}$

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
3.995±0.034 OUR FIT Error includes scale factor of 1.1.						
• • • We do not use the following data for averages, fits, limits, etc. • • •						
3.95 ±0.21	417	HILL	68B	DBC	+	$K^+ d \rightarrow K^0 pp$
3.90 ±0.25	9	BURNSTEIN	65	HBC	−	
3.71 ±0.35	7	KIM	65B	HBC	−	$K^- p \rightarrow n\overline{K}^0$
5.4 ±1.1		CRAWFORD	59	HBC	+	
3.9 ±0.6		ROSENFELD	59	HBC	−	

$|m_{K^0} - m_{\overline{K}^0}| / m_{\text{average}}$

A test of *CPT* invariance.

VALUE	*DOCUMENT ID*
$<10^{-18}$ OUR EVALUATION	

K^0 REFERENCES

BARKOV	87B	SJNP 46 630 Translated from YAF 46 1088.	+Vasserman, Vorobev, Ivanov+	(NOVO)
BARKOV	85B	JETPL 42 138 Translated from ZETFP 42 113.	+Blinov, Vasserman+	(NOVO)
HILL	68B	PR 168 1534	+Robinson, Sakitt, Canter	(BNL, CMU)
FITCH	67	PR 164 1711	+Roth, Russ, Vernon	(PRIN)
BALTAY	66	PR 142 932	+Sandweiss, Stonehill+	(YALE, BNL)
BURNSTEIN	65	PR 138B 895	+Rubin	(UMD)
KIM	65B	PR 140B 1334	+Kirsch, Miller	(COLU)
CHRISTENS...	64	PRL 13 138	Christenson, Cronin, Fitch, Turlay	(PRIN)
CRAWFORD	59	PRL 2 112	+Cresti, Good, Stevenson, Ticho	(LRL)
ROSENFELD	59	PRL 2 110	+Solmitz, Tripp	(LRL)