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	$e^+e^- \to K^0_L K^0_S$
497.742±0.085	780	BARKOV	85B CMD	$e^+e^- \to K^0_L K^0_S$
• • • 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	+	$K^+ d \to K^0 pp$
3.90 ±0.25	9	BURNSTEIN	65 HBC	−	
3.71 ±0.35	7	KIM	65B HBC	−	$K^- p \to n\overline{K}^0$
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*
$<9 \times 10^{-19}$ OUR EVALUATION	

K^0 REFERENCES

BARKOV	87B	SJNP 46 630	+Vasserman, Vorobev, Ivanov+	(NOVO)
		Translated from YAF 46 1088.		
BARKOV	85B	JETPL 42 138	+Blinov, Vasserman+	(NOVO)
		Translated from ZETFP 42 113.		
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)