

Reference = ABLIKIM 16F; PR D94 032001
Verifier code = BES3

PLEASE READ NOW

*PLEASE
REPLY
WITHIN
ONE WEEK*

Normally we send all verifications for one experiment to one person, usually the spokesperson or data-analysis coordinator, who then distributes them to the appropriate people. Please tell us if we should send the verifications for your experiment to someone else.

Xiao-Rui Lyu

EMAIL: xiaorui@ucas.ac.cn

March 20, 2017

Dear Colleague,

- (1) Please check the results of your experiment carefully. They are marked.
- (2) Please reply within one week.
- (3) Please reply even if everything is correct.
- (4) IMPORTANT!! Please tell WHICH papers you are verifying. We have lots of requests out.
- (5) Feel free to make comments on our treatment of any of the results (not just yours) you see.

Thank you for helping us make the Review accurate and useful.

Sincerely,

Simon Eidelman
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STRANGE MESONS

($S = \pm 1, C = B = 0$)

$$K^+ = u\bar{s}, K^0 = d\bar{s}, \bar{K}^0 = \bar{d}s, K^- = \bar{u}s, \text{ similarly for } K^{*'}s$$

$K^*(892)$

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

K*(892) MASS

NEUTRAL ONLY

VALUE (MeV)	EVTs	DOCUMENT ID	TECN	COMMENT
895.55 ± 0.20 OUR AVERAGE				
Error includes scale factor of 1.7. See the ideogram below.				
894.68 ± 0.25 ± 0.05		¹ ABLIKIM	16F BES3	$D^+ \rightarrow K^- \pi^+ e^+ \nu_e$
895.4 ± 0.2 ± 0.2	243k	² DEL-AMO-SA...	11i BABR	$D^+ \rightarrow K^- \pi^+ e^+ \nu_e$
895.7 ± 0.2 ± 0.3	141k	³ BONVICINI	08A CLEO	$D^+ \rightarrow K^- \pi^+ \pi^+$
895.41 ± 0.32 $^{+0.35}_{-0.43}$	18k	⁴ LINK	05i FOCS	$D^+ \rightarrow K^- \pi^+ \mu^+ \nu_\mu$
896 ± 2		BARBERIS	98E OMEG	450 $pp \rightarrow p_f p_s K^* \bar{K}^*$
895.9 ± 0.5 ± 0.2		ASTON	88 LASS	11 $K^- p \rightarrow K^- \pi^+ n$
894.52 ± 0.63	25k	⁵ ATKINSON	86 OMEG	20-70 γp
894.63 ± 0.76	20k	⁵ ATKINSON	86 OMEG	20-70 γp
897 ± 1	28k	EVANGELIS...	80 OMEG	10 $\pi^- p \rightarrow K^+ \pi^- (\Lambda, \Sigma)$
898.4 ± 1.4	1180	AGUILAR-...	78B HBC	0.76 $\bar{p} p \rightarrow K^\mp K_S^0 \pi^\pm$
894.9 ± 1.6		WICKLUND	78 ASPK	3,4,6 $K^\pm N \rightarrow (K\pi)^0 N$
897.6 ± 0.9		BOWLER	77 DBC	5.4 $K^+ d \rightarrow K^+ \pi^- pp$
895.5 ± 1.0	3600	MCCUBBIN	75 HBC	3.6 $K^- p \rightarrow K^- \pi^+ n$
897.1 ± 0.7	22k	⁵ PALER	75 HBC	14.3 $K^- p \rightarrow (K\pi)^0 X$
896.0 ± 0.6	10k	FOX	74 RVUE	2 $K^- p \rightarrow K^- \pi^+ n$
896.0 ± 0.6		FOX	74 RVUE	2 $K^+ n \rightarrow K^+ \pi^- p$
896 ± 2		⁶ MATISON	74 HBC	12 $K^+ p \rightarrow K^+ \pi^- \Delta$
896 ± 1	3186	LEWIS	73 HBC	2.1-2.7 $K^+ p \rightarrow K \pi \pi p$
894.0 ± 1.3		⁶ LINGLIN	73 HBC	2-13 $K^+ p \rightarrow$ $K^+ \pi^- \pi^+ p$
898.4 ± 1.3	1700	⁷ BUCHNER	72 DBC	4.6 $K^+ n \rightarrow K^+ \pi^- p$
897.9 ± 1.1	2934	⁷ AGUILAR-...	71B HBC	3.9,4.6 $K^- p \rightarrow K^- \pi^+ n$
898.0 ± 0.7	5362	⁷ AGUILAR-...	71B HBC	3.9,4.6 $K^- p \rightarrow$ $K^- \pi^+ \pi^- p$
895 ± 1	4300	⁸ HABER	70 DBC	3 $K^- N \rightarrow K^- \pi^+ X$
893.7 ± 2.0	10k	DAVIS	69 HBC	12 $K^+ p \rightarrow K^+ \pi^- \pi^+ p$
894.7 ± 1.4	1040	⁷ DAUBER	67B HBC	2.0 $K^- p \rightarrow K^- \pi^+ \pi^- p$
● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●				
895.53 ± 0.17		LEES	13F BABR	$D^+ \rightarrow K^+ K^- \pi^+$
894.9 ± 0.5 ± 0.7	14.4k	⁹ MITCHELL	09A CLEO	$D_s^+ \rightarrow K^+ K^- \pi^+$
896.2 ± 0.3	20k	¹⁰ AUBERT	07AK BABR	10.6 $e^+ e^- \rightarrow$ $K^{*0} K^\pm \pi^\mp \gamma$
900.7 ± 1.1	5900	BARTH	83 HBC	70 $K^+ p \rightarrow K^+ \pi^- X$

- YOUR NOTE
- ¹ Taking also into account the $K_0^*(1430)^0$ and $K_2^*(1430)^0$.
 - ² Taking into account the $K^*(892)^0$, S-wave and P-wave ($K^*(1410)^0$).
 - ³ From the isobar model with a complex pole for the κ .
 - ⁴ Fit to $K\pi$ mass spectrum includes a non-resonant scalar component.
 - ⁵ Inclusive reaction. Complicated background and phase-space effects.
 - ⁶ From pole extrapolation.
 - ⁷ Mass errors enlarged by us to $\Gamma/\sqrt{N}$. See note.
 - ⁸ Number of events in peak reevaluated by us.
 - ⁹ This value comes from a fit with χ^2 of 178/117.
 - ¹⁰ Systematic uncertainties not estimated.

K*(892) WIDTH

NODE=MXXX020

NODE=MXXX020

NODE=M018

NODE=M018205

NODE=M018M2

NODE=M018M2

OCCUR=2

OCCUR=2

OCCUR=2

NODE=M018M2;LINKAGE=B
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NODE=M018215

NEUTRAL ONLY

VALUE (MeV)	EVTs	DOCUMENT ID	TECN	COMMENT
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47.3 ±0.5 OUR AVERAGE Error includes scale factor of 2.0. See the ideogram below.

YOUR DATA	46.53 ±0.56 ±0.31		¹ ABLIKIM	16F	BES3	$D^+ \rightarrow K^- \pi^+ e^+ \nu_e$
	46.5 ±0.3 ±0.2	243k	² DEL-AMO-SA...	11I	BABR	$D^+ \rightarrow K^- \pi^+ e^+ \nu_e$
	45.3 ±0.5 ±0.6	141k	³ BONVICINI	08A	CLEO	$D^+ \rightarrow K^- \pi^+ \pi^+$
	47.79 ±0.86 $^{+1.32}_{-1.06}$	18k	⁴ LINK	05I	FOCS	$D^+ \rightarrow K^- \pi^+ \mu^+ \nu_\mu$
	54 ±3		BARBERIS	98E	OMEG	450 $pp \rightarrow p_f p_s K^* \bar{K}^*$
	50.8 ±0.8 ±0.9		ASTON	88	LASS	11 $K^- p \rightarrow K^- \pi^+ n$
	46.5 ±4.3	5900	BARTH	83	HBC	70 $K^+ p \rightarrow K^+ \pi^- X$
	54 ±2	28k	EVANGELIS...	80	OMEG	10 $\pi^- p \rightarrow K^+ \pi^- (\Lambda, \Sigma)$
	45.9 ±4.8	1180	AGUILAR-...	78B	HBC	0.76 $\bar{p} p \rightarrow K^\mp K_S^0 \pi^\pm$
	51.2 ±1.7		WICKLUND	78	ASPK	3,4,6 $K^\pm N \rightarrow (K\pi)^0 N$
	48.9 ±2.5		BOWLER	77	DBC	5.4 $K^+ d \rightarrow K^+ \pi^- pp$
	48 $^{+3}_{-2}$	3600	MCCUBBIN	75	HBC	3.6 $K^- p \rightarrow K^- \pi^+ n$
	50.6 ±2.5	22k	⁵ PALER	75	HBC	14.3 $K^- p \rightarrow (K\pi)^0 X$
	47 ±2	10k	FOX	74	RVUE	2 $K^- p \rightarrow K^- \pi^+ n$
	51 ±2		FOX	74	RVUE	2 $K^+ n \rightarrow K^+ \pi^- p$
	46.0 ±3.3	3186	⁶ LEWIS	73	HBC	2.1-2.7 $K^+ p \rightarrow K\pi\pi p$
	51.4 ±5.0	1700	⁶ BUCHNER	72	DBC	4.6 $K^+ n \rightarrow K^+ \pi^- p$
	55.8 $^{+4.2}_{-3.4}$	2934	⁶ AGUILAR-...	71B	HBC	3.9,4.6 $K^- p \rightarrow K^- \pi^+ n$
	48.5 ±2.7	5362	AGUILAR-...	71B	HBC	3.9,4.6 $K^- p \rightarrow K^- \pi^+ \pi^- p$
	54.0 ±3.3	4300	^{6,7} HABER	70	DBC	3 $K^- N \rightarrow K^- \pi^+ X$
	53.2 ±2.1	10k	⁶ DAVIS	69	HBC	12 $K^+ p \rightarrow K^+ \pi^- \pi^+ p$
	44 ±5.5	1040	⁶ DAUBER	67B	HBC	2.0 $K^- p \rightarrow K^- \pi^+ \pi^- p$
	● ● ● We do not use the following data for averages, fits, limits, etc. ● ● ●					
	44.90 ±0.30		LEES	13F	BABR	$D^+ \rightarrow K^+ K^- \pi^+$
	45.7 ±1.1 ±0.5	14.4k	⁸ MITCHELL	09A	CLEO	$D_s^+ \rightarrow K^+ K^- \pi^+$
	50.6 ±0.9	20k	⁹ AUBERT	07AK	BABR	10.6 $e^+ e^- \rightarrow K^{*0} K^\pm \pi^\mp \gamma$

NODE=M018W2
NODE=M018W2

OCCUR=2

OCCUR=2

YOUR NOTE

- 1 Taking also into account the $K_0^*(1430)^0$ and $K_2^*(1430)^0$.
- 2 Taking into account the $K^*(892)^0$, S-wave and P-wave ($K^*(1410)^0$).
- 3 From the isobar model with a complex pole for the κ .
- 4 Fit to $K\pi$ mass spectrum includes a non-resonant scalar component.
- 5 Inclusive reaction. Complicated background and phase-space effects.
- 6 Width errors enlarged by us to $4 \times \Gamma/\sqrt{N}$; see note.
- 7 Number of events in peak reevaluated by us.
- 8 This value comes from a fit with χ^2 of 178/117.
- 9 Systematic uncertainties not estimated.

NODE=M018W2;LINKAGE=B
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NODE=M018W2;LINKAGE=W
NODE=M018W2;LINKAGE=MI
NODE=M018W2;LINKAGE=NS

K*(892) REFERENCES

NODE=M018

YOUR PAPER

ABLIKIM	16F	PR D94 032001	M. Ablikim <i>et al.</i>	(BES III Collab.)
LEES	13F	PR D87 052010	J.P. Lees <i>et al.</i>	(BABAR Collab.)
DEL-AMO-SA...	11I	PR D83 072001	P. del Amo Sanchez <i>et al.</i>	(BABAR Collab.)
MITCHELL	09A	PR D79 072008	R.E. Mitchell <i>et al.</i>	(CLEO Collab.)
BONVICINI	08A	PR D78 052001	G. Bonvicini <i>et al.</i>	(CLEO Collab.)
AUBERT	07AK	PR D76 012008	B. Aubert <i>et al.</i>	(BABAR Collab.)
LINK	05I	PL B621 72	J.M. Link <i>et al.</i>	(FNAL FOCUS Collab.)
BARBERIS	98E	PL B436 204	D. Barberis <i>et al.</i>	(Omega Expt.)
ASTON	88	NP B296 493	D. Aston <i>et al.</i>	(SLAC, NAGO, CINC, INUS)
ATKINSON	86	ZPHY C30 521	M. Atkinson <i>et al.</i>	(BONN, CERN, GLAS+)
BARTH	83	NP B223 296	M. Barth <i>et al.</i>	(BRUX, CERN, GENO, MONS+)
EVANGELIS...	80	NP B165 383	C. Evangelista <i>et al.</i>	(BARI, BONN, CERN+)
AGUILAR-...	78B	NP B141 101	M. Aguilar-Benitez <i>et al.</i>	(MADR, TATA+)
WICKLUND	78	PR D17 1197	A.B. Wicklund <i>et al.</i>	(ANL)
BOWLER	77	NP B126 31	M.G. Bowler <i>et al.</i>	(OXF)
MCCUBBIN	75	NP B86 13	N.A. McCubbin, L. Lyons	(OXF)
PALER	75	NP B96 1	K. Paler <i>et al.</i>	(RHEL, SACL, EPOL)
FOX	74	NP B80 403	G.C. Fox, M.L. Griss	(CIT)
MATISON	74	PR D9 1872	M.J. Matison <i>et al.</i>	(LBL)
LEWIS	73	NP B60 283	P.H. Lewis <i>et al.</i>	(LOWC, LOIC, CDEF)
LINGLIN	73	NP B55 408	D. Linglin	(CERN)
BUCHNER	72	NP B45 333	K. Buchner <i>et al.</i>	(MPIM, CERN, BRUX)
AGUILAR-...	71B	PR D4 2583	M. Aguilar-Benitez, R.L. Eisner, J.B. Kinson	(BNL)
HABER	70	NP B17 289	B. Haber <i>et al.</i>	(REHO, SACL, BGNA, EPOL)
DAVIS	69	PRL 23 1071	P.J. Davis <i>et al.</i>	(LRL)
DAUBER	67B	PR 153 1403	P.M. Dauber <i>et al.</i>	(UCLA)

REFID=57307
REFID=55127
REFID=16493
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REFID=50679
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