NODE=B047

$\Sigma(2030)$ $7/2^+$

$I(J^P) = 1(\frac{7}{2}^+)$ Status: ∗∗∗∗

Discovered by COOL 66 and by WOHL 66. For most results published before 1974 (they are now obsolete), see our 1982 edition Physics Letters **111B** 1 (1982).

This entry only includes results from partial-wave analyses. Parameters of peaks seen in cross sections and invariant-mass distributions around 2030 MeV may be found in our 1984 edition, Reviews of Modern Physics **56** S1 (1984).

NODE=B047

$\Sigma(2030)$ POLE POSITION

NODE=B047225

REAL PART

NODE=B047RE
NODE=B047RE

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
2010 to 2030 (≈ 2020) OUR ESTIMATE				
2014 ± 6	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
2025^{+10}_{-5}	[1] KAMANO	15	DPWA	$\overline{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •				
1993	ZHANG	13A	DPWA	$\overline{K}N$ multichannel

→ UNCHECKED ←

[1] From the preferred solution A in KAMANO 15.

NODE=B047RE;LINKAGE=A

−2×IMAGINARY PART

NODE=B047IM
NODE=B047IM

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
130 to 190 (≈ 160) OUR ESTIMATE				
172 ± 12	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
130^{+6}_{-24}	[1] KAMANO	15	DPWA	$\overline{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •				
176	ZHANG	13A	DPWA	$\overline{K}N$ multichannel

→ UNCHECKED ←

[1] From the preferred solution A in KAMANO 15.

NODE=B047IM;LINKAGE=A

$\Sigma(2030)$ POLE RESIDUES

NODE=B047250

The normalized residue is the residue divided by $\Gamma_{pole}/2$.

NODE=B047250

Normalized residue in $N\overline{K} \to \Sigma(2030) \to N\overline{K}$

NODE=B047A00
NODE=B047A00

MODULUS	PHASE (°)	DOCUMENT ID		TECN	COMMENT
0.20 ±0.04	**-38 ± 8**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.220	−38	[1] KAMANO	15	DPWA	$\overline{K}N$ multichannel

[1] From the preferred solution A in KAMANO 15.

NODE=B047A00;LINKAGE=A

Normalized residue in $N\overline{K} \to \Sigma(2030) \to \Sigma\pi$

NODE=B047A01
NODE=B047A01

MODULUS	PHASE (°)	DOCUMENT ID		TECN	COMMENT
0.07 ±0.02	**165 ± 12**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.0807	135	[1] KAMANO	15	DPWA	$\overline{K}N$ multichannel

[1] From the preferred solution A in KAMANO 15.

NODE=B047A01;LINKAGE=A

Normalized residue in $N\overline{K} \to \Sigma(2030) \to \Lambda\pi$

NODE=B047A02
NODE=B047A02

MODULUS	PHASE (°)	DOCUMENT ID		TECN	COMMENT
0.18 ±0.04	**-22 ± 12**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.138	−24	[1] KAMANO	15	DPWA	$\overline{K}N$ multichannel

[1] From the preferred solution A in KAMANO 15.

NODE=B047A02;LINKAGE=A

Normalized residue in $N\overline{K} \to \Sigma(2030) \to \Xi K$

NODE=B047A03
NODE=B047A03

MODULUS	PHASE (°)	DOCUMENT ID		TECN	COMMENT
0.01 ±0.01		SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.0348	129	[1] KAMANO	15	DPWA	$\overline{K}N$ multichannel

OCCUR=2

[1] From the preferred solution A in KAMANO 15.

NODE=B047A03;LINKAGE=B

Normalized residue in $N\overline{K} \to \Sigma(2030) \to \Sigma(1385)\pi$, F-wave

NODE=B047A04

MODULUS	PHASE (°)	DOCUMENT ID		TECN	COMMENT
0.04 ±0.03		SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.089	−23	[1] KAMANO	15	DPWA	$\overline{K}N$ multichannel

[1] From the preferred solution A in KAMANO 15.

NODE=B047A04;LINKAGE=A

Normalized residue in $N\overline{K} \to \Sigma(2030) \to \Sigma(1385)\pi$, H-wave

NODE=B047A05

MODULUS	PHASE (°)	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.0245	132	[1] KAMANO	15	DPWA	Multichannel

[1] From the preferred solution A in KAMANO 15.

NODE=B047A05;LINKAGE=A

Normalized residue in $N\overline{K} \to \Sigma(2030) \to \Lambda(1520)\pi$, D-wave

NODE=B047A09

MODULUS	PHASE (°)	DOCUMENT ID		TECN	COMMENT
0.03±0.02	**−100 ± 40**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Sigma(2030) \to \Lambda(1520)\pi$, G-wave

NODE=B047A10

MODULUS	PHASE (°)	DOCUMENT ID		TECN	COMMENT
0.02±0.02		SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Sigma(2030) \to \Delta\overline{K}$, F-wave

NODE=B047A11

MODULUS	PHASE (°)	DOCUMENT ID		TECN	COMMENT
0.16±0.06	**−130 ± 20**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Sigma(2030) \to \Delta\overline{K}$, H-wave

NODE=B047A12

MODULUS	PHASE (°)	DOCUMENT ID		TECN	COMMENT
0.04±0.02	**−130 ± 35**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

Normalized residue in $N\overline{K} \to \Sigma(2030) \to N\overline{K}^*(892)$, S=1/2 , F-wave

NODE=B047A06

MODULUS	PHASE (°)	DOCUMENT ID		TECN	COMMENT
0.02 ±0.02		SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.193	38	[1] KAMANO	15	DPWA	$\overline{K}N$ multichannel

[1] From the preferred solution A in KAMANO 15.

NODE=B047A06;LINKAGE=A

Normalized residue in $N\overline{K} \to \Sigma(2030) \to N\overline{K}^*(892)$, S=3/2 , F-wave

NODE=B047A07

MODULUS	PHASE (°)	DOCUMENT ID		TECN	COMMENT
0.16 ±0.09	**−160 ± 40**	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.320	37	[1] KAMANO	15	DPWA	$\overline{K}N$ multichannel

[1] From the preferred solution A in KAMANO 15.

NODE=B047A07;LINKAGE=A

Normalized residue in $N\overline{K} \to \Sigma(2030) \to N\overline{K}^*(892)$, S=3/2 , H-wave

NODE=B047A08

MODULUS	PHASE (°)	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
0.00358	22	[1] KAMANO	15	DPWA	Multichannel

[1] From the preferred solution A in KAMANO 15.

NODE=B047A08;LINKAGE=A

Σ(2030) MASS

NODE=B047M

NODE=B047M

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
2025 to 2040 (≈ 2030) OUR ESTIMATE				
2032± 6	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
2030± 5	ZHANG	13A	DPWA	$\overline{K}N$ multichannel
2036± 5	GOPAL	80	DPWA	$\overline{K}N \to \overline{K}N$
2038±10	CORDEN	77B		$K^- N \to N\overline{K}^*$
2030± 3	[1] CORDEN	76	DPWA	$K^- n \to \Lambda\pi^-$
2035±15	BAILLON	75	IPWA	$\overline{K}N \to \Lambda\pi$
2038±10	HEMINGWAY	75	DPWA	$K^- p \to \overline{K}N$
2042±11	VANHORN	75	DPWA	$K^- p \to \Lambda\pi^0$
2020± 6	KANE	74	DPWA	$K^- p \to \Sigma\pi$
2035±10	LITCHFIELD	74B	DPWA	$K^- p \to \Lambda(1520)\pi^0$
2020±30	LITCHFIELD	74C	DPWA	$K^- p \to \Delta(1232)\overline{K}$
2025±10	LITCHFIELD	74D	DPWA	$K^- p \to \Lambda(1820)\pi^0$

→ UNCHECKED ←

• • • We do not use the following data for averages, fits, limits, etc. • • •

2040± 5	GOPAL	77	DPWA	$\overline{K}N$ multichannel
2027 to 2057	GOYAL	77	DPWA	$K^- N \to \Sigma\pi$
2030	DEBELLEFON	76	IPWA	$K^- p \to \Lambda\pi^0$

[1] Preferred solution 3; see CORDEN 76 for other possibilities.

NODE=B047M;LINKAGE=A

Σ(2030) WIDTH

NODE=B047W

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
150 to 200 (≈ 180) OUR ESTIMATE				
177±12	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
207±17	ZHANG	13A	DPWA	$\overline{K}N$ multichannel
172±10	GOPAL	80	DPWA	$\overline{K}N \to \overline{K}N$
137±40	CORDEN	77B		$K^- N \to N\overline{K}^*$
201± 9	[1] CORDEN	76	DPWA	$K^- n \to \Lambda\pi^-$
180±20	BAILLON	75	IPWA	$\overline{K}N \to \Lambda\pi$
172±15	HEMINGWAY	75	DPWA	$K^- p \to \overline{K}N$
178±13	VANHORN	75	DPWA	$K^- p \to \Lambda\pi^0$
111± 5	KANE	74	DPWA	$K^- p \to \Sigma\pi$
160±20	LITCHFIELD	74B	DPWA	$K^- p \to \Lambda(1520)\pi^0$
200±30	LITCHFIELD	74C	DPWA	$K^- p \to \Delta(1232)\overline{K}$

NODE=B047W
→ UNCHECKED ←

• • • We do not use the following data for averages, fits, limits, etc. • • •

260	DECLAIS	77	DPWA	$\overline{K}N \to \overline{K}N$
190±10	GOPAL	77	DPWA	$\overline{K}N$ multichannel
126 to 195	GOYAL	77	DPWA	$K^- N \to \Sigma\pi$
160	DEBELLEFON	76	IPWA	$K^- p \to \Lambda\pi^0$
70 to 125	LITCHFIELD	74D	DPWA	$K^- p \to \Lambda(1820)\pi^0$

[1] Preferred solution 3; see CORDEN 76 for other possibilities.

NODE=B047W;LINKAGE=A

Σ(2030) DECAY MODES

NODE=B047215;NODE=B047

	Mode	Fraction (Γ_i/Γ)	
Γ_1	$N\overline{K}$	17–23 %	DESIG=1;OUR EST
Γ_2	$\Lambda\pi$	17–23 %	DESIG=2;OUR EST
Γ_3	$\Sigma\pi$	5–10 %	DESIG=3;OUR EST
Γ_4	ΞK	<2 %	DESIG=4;OUR EST
Γ_5	$\Sigma(1385)\pi$	5–15 %	DESIG=10;OUR EST
Γ_6	$\Sigma(1385)\pi$, F-wave	(1.0±1.0) %	DESIG=21
Γ_7	$\Sigma(1385)\pi$, H-wave		DESIG=187
Γ_8	$\Lambda(1520)\pi$	10–20 %	DESIG=181;OUR EST
Γ_9	$\Lambda(1520)\pi$, D-wave		DESIG=6
Γ_{10}	$\Lambda(1520)\pi$, G-wave		DESIG=7
Γ_{11}	$\Delta(1232)\overline{K}$	10–20 %	DESIG=182;OUR EST
Γ_{12}	$\Delta(1232)\overline{K}$, F-wave	(15 ±5) %	DESIG=8
Γ_{13}	$\Delta(1232)\overline{K}$, H-wave	(1.0±1.0) %	DESIG=9
Γ_{14}	$N\overline{K}^*(892)$		DESIG=183
Γ_{15}	$N\overline{K}^*(892)$, S=1/2, F-wave		DESIG=11
Γ_{16}	$N\overline{K}^*(892)$, S=3/2, F-wave	(14 ±8) %	DESIG=12
Γ_{17}	$N\overline{K}^*(892)$, S=3/2, H-wave		DESIG=184
Γ_{18}	$\Lambda(1820)\pi$, P-wave		DESIG=5

Σ(2030) BRANCHING RATIOS

NODE=B047220

See “Sign conventions for resonance couplings” in the Note on Λ and Σ Resonances.

NODE=B047220

$\Gamma(N\overline{K})/\Gamma_{total}$ Γ_1/Γ

NODE=B047R1
NODE=B047R1

VALUE	DOCUMENT ID		TECN	COMMENT
0.17 to 0.23 OUR ESTIMATE				
0.20 ±0.04	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
0.13 ±0.01	ZHANG	13A	DPWA	$\overline{K}N$ multichannel
0.19 ±0.03	GOPAL	80	DPWA	$\overline{K}N \to \overline{K}N$
0.18 ±0.03	HEMINGWAY	75	DPWA	$K^- p \to \overline{K}N$

→ UNCHECKED ←

• • • We do not use the following data for averages, fits, limits, etc. • • •

0.269	[1] KAMANO	15	DPWA	Multichannel
0.15	DECLAIS	77	DPWA	$\overline{K}N \to \overline{K}N$
0.24 ±0.02	GOPAL	77	DPWA	See GOPAL 80

[1] From the preferred solution A in KAMANO 15. NODE=B047R1;LINKAGE=A

$\Gamma(\Lambda\pi)/\Gamma_{total}$ Γ_2/Γ

NODE=B047R01
NODE=B047R01

VALUE	DOCUMENT ID		TECN	COMMENT
0.17 ±0.04	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.080	[1] KAMANO	15	DPWA	$\overline{K}N$ multichannel

[1] From the preferred solution A in KAMANO 15. NODE=B047R01;LINKAGE=A

$\Gamma(\Sigma\pi)/\Gamma_{total}$ Γ_3/Γ

NODE=B047R00
NODE=B047R00

VALUE	DOCUMENT ID		TECN	COMMENT
0.025±0.008	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.037	[1] KAMANO	15	DPWA	$\overline{K}N$ multichannel

[1] From the preferred solution A in KAMANO 15. NODE=B047R00;LINKAGE=A

$\Gamma(\Xi K)/\Gamma_{total}$ Γ_4/Γ

NODE=B047R02
NODE=B047R02

VALUE	DOCUMENT ID		TECN	COMMENT
<0.01	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.006	[1] KAMANO	15	DPWA	$\overline{K}N$ multichannel

[1] From the preferred solution A in KAMANO 15. NODE=B047R02;LINKAGE=A

$\Gamma(\Lambda(1520)\pi$, D-wave$)/\Gamma_{total}$ Γ_9/Γ

NODE=B047R03
NODE=B047R03

VALUE	DOCUMENT ID		TECN	COMMENT
∼ 0.01	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Gamma(\Lambda(1520)\pi$, G-wave$)/\Gamma_{total}$ Γ_{10}/Γ

NODE=B047R09
NODE=B047R09

VALUE	DOCUMENT ID		TECN	COMMENT
<0.01	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Gamma(\Sigma(1385)\pi$, F-wave$)/\Gamma_{total}$ Γ_6/Γ

NODE=B047R04
NODE=B047R04

VALUE	DOCUMENT ID		TECN	COMMENT
0.01 ±0.01	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.030	[1] KAMANO	15	DPWA	$\overline{K}N$ multichannel

[1] From the preferred solution A in KAMANO 15. NODE=B047R04;LINKAGE=A

$\Gamma(\Sigma(1385)\pi$, H-wave$)/\Gamma_{total}$ Γ_7/Γ

NODE=B047R05
NODE=B047R05

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.003	[1] KAMANO	15	DPWA	Multichannel

[1] From the preferred solution A in KAMANO 15. NODE=B047R05;LINKAGE=A

$\Gamma(\Delta(1232)\overline{K}$, F-wave$)/\Gamma_{total}$ Γ_{12}/Γ

NODE=B047R13
NODE=B047R13

VALUE	DOCUMENT ID		TECN	COMMENT
0.15±0.05	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Gamma(\Delta(1232)\overline{K}$, H-wave$)/\Gamma_{total}$ Γ_{13}/Γ

NODE=B047R14
NODE=B047R14

VALUE	DOCUMENT ID		TECN	COMMENT
0.01±0.01	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel

$\Gamma(N\overline{K}^*(892)$, S=1/2, F-wave$)/\Gamma_{total}$ Γ_{15}/Γ

NODE=B047R06
NODE=B047R06

VALUE	DOCUMENT ID		TECN	COMMENT
<0.01	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.154	[1] KAMANO	15	DPWA	$\overline{K}N$ multichannel

[1] From the preferred solution A in KAMANO 15. NODE=B047R06;LINKAGE=A

$\Gamma(N\overline{K}^*(892), S{=}3/2, F\text{-wave})/\Gamma_{total}$ — Γ_{16}/Γ

NODE=B047R07

VALUE	DOCUMENT ID		TECN	COMMENT
0.14 ±0.08	SARANTSEV	19	DPWA	$\overline{K}N$ multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.422	[1] KAMANO	15	DPWA	$\overline{K}N$ multichannel

[1] From the preferred solution A in KAMANO 15.

NODE=B047R07;LINKAGE=A

$\Gamma(N\overline{K}^*(892), S{=}3/2, H\text{-wave})/\Gamma_{total}$ — Γ_{17}/Γ

NODE=B047R08

VALUE	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
not seen	[1] KAMANO	15	DPWA	$\overline{K}N$ multichannel

[1] From the preferred solution A in KAMANO 15.

NODE=B047R08;LINKAGE=A

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{total}$ in $N\overline{K} \to \Sigma(2030) \to \Lambda\pi$ — $(\Gamma_1\Gamma_2)^{1/2}/\Gamma$

NODE=B047R2

VALUE	DOCUMENT ID		TECN	COMMENT
+0.15 ±0.01	ZHANG	13A	DPWA	Multichannel
+0.18 ±0.02	GOPAL	77	DPWA	$\overline{K}N$ multichannel
+0.20 ±0.01	[1] CORDEN	76	DPWA	$K^- n \to \Lambda\pi^-$
+0.18 ±0.02	BAILLON	75	IPWA	$\overline{K}N \to \Lambda\pi$
+0.20 ±0.01	VANHORN	75	DPWA	$K^- p \to \Lambda\pi^0$
+0.195±0.053	DEVENISH	74B		Fixed-t dispersion rel.
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.20	DEBELLEFON	76	IPWA	$K^- p \to \Lambda\pi^0$

[1] Preferred solution 3; see CORDEN 76 for other possibilities.

NODE=B047;LINKAGE=A

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{total}$ in $N\overline{K} \to \Sigma(2030) \to \Sigma\pi$ — $(\Gamma_1\Gamma_3)^{1/2}/\Gamma$

NODE=B047R3

VALUE	DOCUMENT ID		TECN	COMMENT
−0.08 ±0.01	ZHANG	13A	DPWA	Multichannel
−0.09 ±0.01	[1] CORDEN	77C		$K^- n \to \Sigma\pi$
−0.06 ±0.01	[1] CORDEN	77C		$K^- n \to \Sigma\pi$ (OCCUR=2)
−0.15 ±0.03	GOPAL	77	DPWA	$\overline{K}N$ multichannel
−0.10 ±0.01	KANE	74	DPWA	$K^- p \to \Sigma\pi$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
−0.085±0.02	[2] GOYAL	77	DPWA	$K^- N \to \Sigma\pi$

[1] The two entries for CORDEN 77C are from two different acceptable solutions.
[2] This coupling is extracted from unnormalized data.

NODE=B047;LINKAGE=C
NODE=B047;LINKAGE=D

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{total}$ in $N\overline{K} \to \Sigma(2030) \to \Xi K$ — $(\Gamma_1\Gamma_4)^{1/2}/\Gamma$

NODE=B047R4

VALUE	DOCUMENT ID		TECN	COMMENT
0.023	MULLER	69B	DPWA	$K^- p \to \Xi K$
<0.05	BURGUN	68	DPWA	$K^- p \to \Xi K$
<0.05	TRIPP	67	RVUE	$K^- p \to \Xi K$

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{total}$ in $N\overline{K} \to \Sigma(2030) \to \Sigma(1385)\pi$, F-wave — $(\Gamma_1\Gamma_6)^{1/2}/\Gamma$

NODE=B047R10

VALUE	DOCUMENT ID		TECN	COMMENT
+0.16 ±0.01	ZHANG	13A	DPWA	Multichannel
+0.153±0.026	[1] CAMERON	78	DPWA	$K^- p \to \Sigma(1385)\pi$

[1] The published sign has been changed to be in accord with the baryon-first convention.

NODE=B047R10;LINKAGE=H

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{total}$ in $N\overline{K} \to \Sigma(2030) \to \Lambda(1520)\pi$, D-wave — $(\Gamma_1\Gamma_9)^{1/2}/\Gamma$

NODE=B047R6

VALUE	DOCUMENT ID		TECN	COMMENT
+0.114±0.010	[1] CAMERON	77	DPWA	$K^- p \to \Lambda(1520)\pi^0$
0.14 ±0.03	LITCHFIELD	74B	DPWA	$K^- p \to \Lambda(1520)\pi^0$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.10 ±0.03	[2] CORDEN	75B	DBC	$K^- n \to N\overline{K}\pi^-$

[1] The published sign has been changed to be in accord with the baryon-first convention.
[2] An upper limit.

NODE=B047R6;LINKAGE=H
NODE=B047;LINKAGE=G

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{total}$ in $N\overline{K} \to \Sigma(2030) \to \Lambda(1520)\pi$, G-wave — $(\Gamma_1\Gamma_{10})^{1/2}/\Gamma$

NODE=B047R7

VALUE	DOCUMENT ID		TECN	COMMENT
+0.146±0.010	[1] CAMERON	77	DPWA	$K^- p \to \Lambda(1520)\pi^0$
0.02 ±0.02	LITCHFIELD	74B	DPWA	$K^- p \to \Lambda(1520)\pi^0$

[1] The published sign has been changed to be in accord with the baryon-first convention.

NODE=B047;LINKAGE=H

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{total}$ in $N\overline{K} \rightarrow \Sigma(2030) \rightarrow \Delta(1232)\overline{K}$, F-wave $(\Gamma_1\Gamma_{12})^{1/2}/\Gamma$

NODE=B047R8
NODE=B047R8

VALUE	DOCUMENT ID		TECN	COMMENT
$+0.12\pm0.02$	ZHANG	13A	DPWA	Multichannel
0.16 ± 0.03	LITCHFIELD	74C	DPWA	$K^- p \rightarrow \Delta(1232)\overline{K}$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.17 ± 0.03	[1] CORDEN	75B	DBC	$K^- n \rightarrow N\overline{K}\pi^-$

[1] An upper limit.

NODE=B047R8;LINKAGE=G

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{total}$ in $N\overline{K} \rightarrow \Sigma(2030) \rightarrow \Delta(1232)\overline{K}$, H-wave $(\Gamma_1\Gamma_{13})^{1/2}/\Gamma$

NODE=B047R9
NODE=B047R9

VALUE	DOCUMENT ID		TECN	COMMENT
0.00 ± 0.02	LITCHFIELD	74C	DPWA	$K^- p \rightarrow \Delta(1232)\overline{K}$

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{total}$ in $N\overline{K} \rightarrow \Sigma(2030) \rightarrow N\overline{K}^*(892)$, S=1/2, F-wave $(\Gamma_1\Gamma_{15})^{1/2}/\Gamma$

NODE=B047R11
NODE=B047R11

VALUE	DOCUMENT ID		TECN	COMMENT
$+0.06\pm0.02$	ZHANG	13A	DPWA	Multichannel
$+0.06\pm0.03$	[1] CAMERON	78B	DPWA	$K^- p \rightarrow N\overline{K}^*$
-0.02 ± 0.01	CORDEN	77B		$K^- d \rightarrow NN\overline{K}^*$

[1] The published sign has been changed to be in accord with the baryon-first convention.

NODE=B047R11;LINKAGE=H

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{total}$ in $N\overline{K} \rightarrow \Sigma(2030) \rightarrow N\overline{K}^*(892)$, S=3/2, F-wave $(\Gamma_1\Gamma_{16})^{1/2}/\Gamma$

NODE=B047R12
NODE=B047R12

VALUE	DOCUMENT ID		TECN	COMMENT
$+0.05\pm0.01$	ZHANG	13A	DPWA	Multichannel
$+0.04\pm0.03$	[1] CAMERON	78B	DPWA	$K^- p \rightarrow N\overline{K}^*$
-0.12 ± 0.02	CORDEN	77B		$K^- d \rightarrow NN\overline{K}^*$

[1] The upper limit on the G_3 wave is 0.03.

NODE=B047;LINKAGE=K

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{total}$ in $N\overline{K} \rightarrow \Sigma(2030) \rightarrow \Lambda(1820)\pi$, P-wave $(\Gamma_1\Gamma_{18})^{1/2}/\Gamma$

NODE=B047R5
NODE=B047R5

VALUE	DOCUMENT ID		TECN	COMMENT
0.14 ± 0.02	CORDEN	75B	DBC	$K^- n \rightarrow N\overline{K}\pi^-$
0.18 ± 0.04	LITCHFIELD	74D	DPWA	$K^- p \rightarrow \Lambda(1820)\pi^0$

$\Sigma(2030)$ REFERENCES

NODE=B047

SARANTSEV	19	EPJ A55 180	A.V. Sarantsev *et al.*	(BONN, PNPI)	REFID=59986
KAMANO	15	PR C92 025205	H. Kamano *et al.*	(ANL, OSAK)	REFID=57507
ZHANG	13A	PR C88 035205	H. Zhang *et al.*	(KSU)	REFID=55441
PDG	84	RMP 56 S1	C.G. Wohl *et al.*	(LBL, CIT, CERN)	REFID=41170
PDG	82	PL 111B 1	M. Roos *et al.*	(HELS, CIT, CERN)	REFID=41167
GOPAL	80	Toronto Conf. 159	G.P. Gopal	(RHEL) IJP	REFID=31755
CAMERON	78	NP B143 189	W. Cameron *et al.*	(RHEL, LOIC) IJP	REFID=31837
CAMERON	78B	NP B146 327	W. Cameron *et al.*	(RHEL, LOIC) IJP	REFID=31838
CAMERON	77	NP B131 399	W. Cameron *et al.*	(RHEL, LOIC) IJP	REFID=31749
CORDEN	77B	NP B121 365	M.J. Corden *et al.*	(BIRM) IJP	REFID=32406
CORDEN	77C	NP B125 61	M.J. Corden *et al.*	(BIRM) IJP	REFID=32326
DECLAIS	77	CERN 77-16	Y. Declais *et al.*	(CAEN, CERN) IJP	REFID=31885
GOPAL	77	NP B119 362	G.P. Gopal *et al.*	(LOIC, RHEL) IJP	REFID=31750
GOYAL	77	PR D16 2746	D.P. Goyal, A.V. Sodhi	(DELH) IJP	REFID=32361
CORDEN	76	NP B104 382	M.J. Corden *et al.*	(BIRM) IJP	REFID=32325
DEBELLEFON	76	NP B109 129	A. de Bellefon, A. Berthon	(CDEF) IJP	REFID=32158
BAILLON	75	NP B94 39	P.H. Baillon, P.J. Litchfield	(CERN, RHEL) IJP	REFID=32089
CORDEN	75B	NP B92 365	M.J. Corden *et al.*	(BIRM) IJP	REFID=32398
HEMINGWAY	75	NP B91 12	R.J. Hemingway *et al.*	(CERN, HEIDH, MPIM) IJP	REFID=31930
VANHORN	75	NP B87 145	A.J. van Horn	(LBL) IJP	REFID=32093
Also		NP B87 157	A.J. van Horn	(LBL) IJP	REFID=32094
DEVENISH	74B	NP B81 330	R.C.E. Devenish, C.D. Froggatt, B.R. Martin	(DESY+)	REFID=30036
KANE	74	LBL-2452	D.F. Kane	(LBL) IJP	REFID=31759
LITCHFIELD	74B	NP B74 19	P.J. Litchfield *et al.*	(CERN, HEIDH) IJP	REFID=32353
LITCHFIELD	74C	NP B74 39	P.J. Litchfield *et al.*	(CERN, HEIDH) IJP	REFID=32354
LITCHFIELD	74D	NP B74 12	P.J. Litchfield *et al.*	(CERN, HEIDH) IJP	REFID=32394
MULLER	69B	Thesis UCRL 19372	R.A. Muller	(LRL)	REFID=31955
BURGUN	68	NP B8 447	G. Burgun *et al.*	(SACL, CDEF, RHEL)	REFID=12047
TRIPP	67	NP B3 10	R.D. Tripp *et al.*	(LRL, SLAC, CERN+)	REFID=30418
COOL	66	PRL 16 1228	R.L. Cool *et al.*	(BNL)	REFID=31861
WOHL	66	PRL 17 107	C.G. Wohl, F.T. Solmitz, M.L. Stevenson	(LRL) IJP	REFID=31951