$\Sigma(1385)\ 3/2^+$

$I(J^P) = 1(\frac{3}{2}^+)$ Status: ✳✳✳✳

Discovered by ALSTON 60. Early measurements of the mass and width for combined charge states have been omitted. They may be found in our 1984 edition Reviews of Modern Physics **56** S1 (1984).

We average only the most significant determinations. We do not average results from inclusive experiments with large backgrounds or results which are not accompanied by some discussion of experimental resolution. Nevertheless systematic differences between experiments remain. (See the ideograms in the Listings below.) These differences could arise from interference effects that change with production mechanism and/or beam momentum. They can also be accounted for in part by differences in the parametrizations employed. (See BORENSTEIN 74 for a discussion on this point.) Thus BORENSTEIN 74 uses a Breit-Wigner with energy-independent width, since a P-wave was found to give unsatisfactory fits. CAMERON 78 uses the same form. On the other hand HOLMGREN 77 obtains a good fit to their $\Lambda\pi$ spectrum with a P-wave Breit-Wigner, but includes the partial width for the $\Sigma\pi$ decay mode in the parametrization. AGUILAR-BENITEZ 81D gives masses and widths for five different Breit-Wigner shapes. The results vary considerably. Only the best-fit S-wave results are given here.

$\Sigma(1385)$ POLE POSITIONS

$\Sigma(1385)^+$ REAL PART

VALUE	DOCUMENT ID	COMMENT
1379±1	LICHTENBERG74	Extrapolates HABIBI 73

$\Sigma(1385)^+$ −IMAGINARY PART

VALUE	DOCUMENT ID	COMMENT
17.5±1.5	LICHTENBERG74	Extrapolates HABIBI 73

$\Sigma(1385)^-$ REAL PART

VALUE	DOCUMENT ID	COMMENT
1383±1	LICHTENBERG74	Extrapolates HABIBI 73

$\Sigma(1385)^-$ −IMAGINARY PART

VALUE	DOCUMENT ID	COMMENT
22.5±1.5	LICHTENBERG74	Extrapolates HABIBI 73

$\Sigma(1385)$ MASSES

$\Sigma(1385)^+$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
1382.83±0.34 OUR AVERAGE		Error includes scale factor of 1.9. See the ideogram below.		
1384.8 ±0.3 ±1.4		LEE	21A BELL	$\Lambda_c^+ \to \eta\Sigma(1385)^+$

Mass	Error	Events	Author	Year	Technique	Reaction
1383.2	± 0.9 $^{+0.1}_{-1.5}$		AGAKISHIEV	12	SPEC	$pp \to \Sigma(1385)^+ K^+ n$, 3.5 GeV
1384.1	± 0.7	1897	BAUBILLIER	84	HBC	$K^- p$ 8.25 GeV/c
1384.5	± 0.5	5256	AGUILAR-...	81D	HBC	$K^- p \to \Lambda \pi \pi$ 4.2 GeV/c
1383.0	± 0.4	9361	AGUILAR-...	81D	HBC	$K^- p \to \Lambda 3\pi$ 4.2 GeV/c
1381.9	± 0.3	6900	CAMERON	78	HBC	$K^- p$ 0.96–1.36 GeV/c
1381	± 1	6846	BORENSTEIN	74	HBC	$K^- p$ 2.18 GeV/c
1383.5	± 0.85	2300	HABIBI	73	HBC	$K^- p \to \Lambda \pi \pi$
1382	± 2	400	AGUILAR-...	72B	HBC	$K^- p \to \Lambda \pi$'s
1384.4	± 1.0	1260	SIEGEL	67	HBC	$K^- p$ 2.1 GeV/c
1382	± 1	750	ARMENTEROS65B		HBC	$K^- p$ 0.9–1.2 GeV/c
1381.0	± 1.6	859	HUWE	64	HBC	$K^- p$ 1.22 GeV/c

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

Mass	Error	Events		Author	Year	Technique	Reaction
1385.1	± 1.2	600		BAKER	80	HYBR	$\pi^+ p$ 7 GeV/c
1383.2	± 1.0	750		BAKER	80	HYBR	$K^- p$ 7 GeV/c
1381	± 2	7k	[1]	BAUBILLIER	79B	HBC	$K^- p$ 8.25 GeV/c
1391	± 2	2k		CAUTIS	79	HYBR	$\pi^+ p/K^- p$ 11.5 GeV
1390	± 2	100	[1]	SUGAHARA	79B	HBC	$\pi^- p$ 6 GeV/c
1385	± 3	22k	[1,2]	BARREIRO	77B	HBC	$K^- p$ 4.2 GeV/c
1385	± 1	2594		HOLMGREN	77	HBC	See AGUILAR-BENITEZ 81D
1380	± 2		[1]	BARDADIN-...	75	HBC	$K^- p$ 14.3 GeV/c
1382	± 1	3740	[3]	BERTHON	74	HBC	$K^- p$ 1263–1843 MeV/c
1390	± 6	46		AGUILAR-...	70B	HBC	$K^- p \to \Sigma \pi$'s 4 GeV/c
1383	± 8	62	[4]	BIRMINGHAM	66	HBC	$K^- p$ 3.5 GeV/c
1378	± 5	135		LONDON	66	HBC	$K^- p$ 2.24 GeV/c
1384.3	± 1.9	250	[4]	SMITH	65	HBC	$K^- p$ 1.8 GeV/c
1382.6	± 2.1	250	[4]	SMITH	65	HBC	$K^- p$ 1.95 GeV/c
1375.0	± 3.9	170		COOPER	64	HBC	$K^- p$ 1.45 GeV/c
1376.0	± 3.9	154	[4]	ELY	61	HLBC	$K^- p$ 1.11 GeV/c

WEIGHTED AVERAGE
1382.83±0.34 (Error scaled by 1.9)

Author	Year	Technique	χ^2
LEE	21A	BELL	1.9
AGAKISHIEV	12	SPEC	0.1
BAUBILLIER	84	HBC	3.3
AGUILAR-...	81D	HBC	11.1
AGUILAR-...	81D	HBC	0.2
CAMERON	78	HBC	9.7
BORENSTEIN	74	HBC	3.4
HABIBI	73	HBC	0.6
AGUILAR-...	72B	HBC	
SIEGEL	67	HBC	2.5
ARMENTEROS	65B	HBC	0.7
HUWE	64	HBC	1.3

34.6
(Confidence Level = 0.0001)

$\Sigma(1385)^+$ mass (MeV)
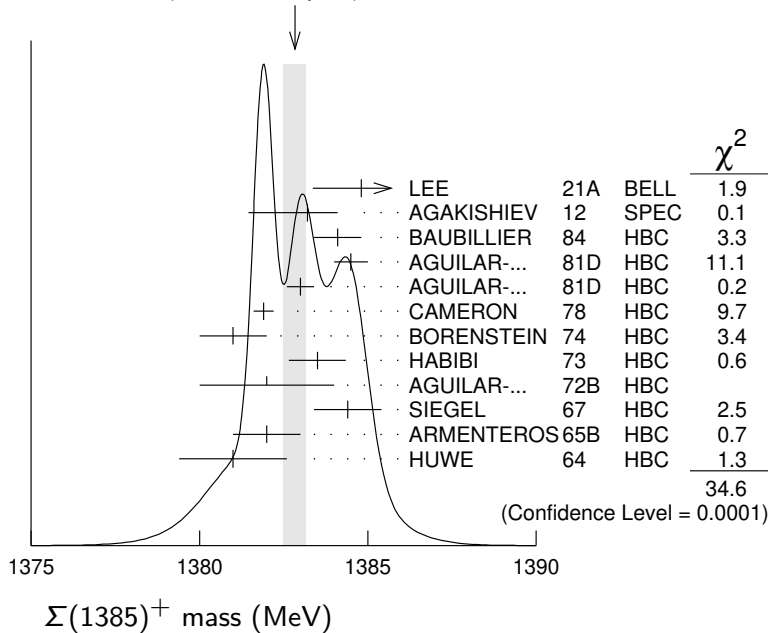
$\Sigma(1385)^0$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
1383.7±1.0 OUR AVERAGE		Error includes scale factor of 1.4. See the ideogram below.			
1384.1±0.8	5722	AGUILAR-...	81D	HBC	$K^- p \to \Lambda 3\pi$ 4.2 GeV/c
1380 ±2	3100	[5] BORENSTEIN	74	HBC	$K^- p \to \Lambda 3\pi$ 2.18 GeV/c
1385.1±2.5	240	[4] THOMAS	73	HBC	$\pi^- p \to \Lambda \pi^0 K^0$

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

1389 ±3	500	[6] BAUBILLIER	79B	HBC	$K^- p$ 8.25 GeV/c

WEIGHTED AVERAGE
1383.7±1.0 (Error scaled by 1.4)

			χ^2
AGUILAR-...	81D	HBC	0.3
BORENSTEIN	74	HBC	3.3
THOMAS	73	HBC	0.3
			4.0

(Confidence Level = 0.136)

$\Sigma(1385)^0$ mass (MeV)
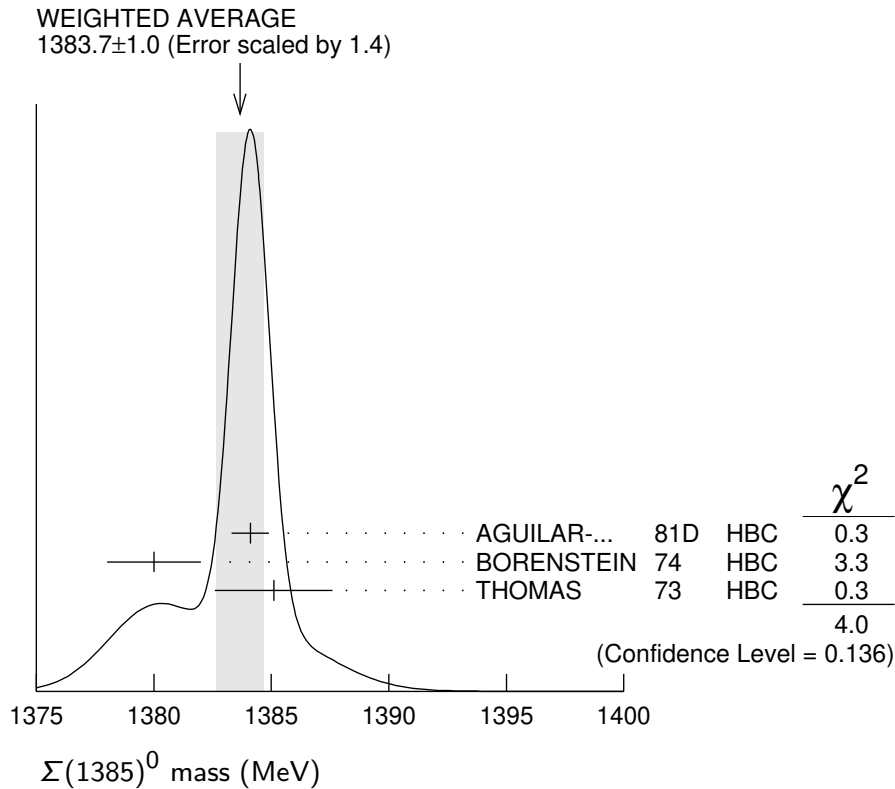
$\Sigma(1385)^-$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
1387.2±0.5 OUR AVERAGE		Error includes scale factor of 2.2. See the ideogram below.			
1388.3±1.7	620	AGUILAR-...	81D	HBC	$K^- p \to \Lambda \pi\pi$ 4.2 GeV/c
1384.9±0.8	3346	AGUILAR-...	81D	HBC	$K^- p \to \Lambda 3\pi$ 4.2 GeV/c
1387.6±0.3	9720	CAMERON	78	HBC	$K^- p$ 0.96–1.36 GeV/c
1383 ±2	2303	BORENSTEIN	74	HBC	$K^- p$ 2.18 GeV/c
1390.7±1.2	1900	HABIBI	73	HBC	$K^- p \to \Lambda \pi\pi$
1387.1±1.9	630	[4] THOMAS	73	HBC	$\pi^- p \to \Lambda \pi^- K^+$
1390.7±2.0	370	SIEGEL	67	HBC	$K^- p$ 2.1 GeV/c
1384 ±1	1380	ARMENTEROS	65B	HBC	$K^- p$ 0.9–1.2 GeV/c
1385.3±1.9	1086	[4] HUWE	64	HBC	$K^- p$ 1.15–1.30 GeV/c

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

1383	± 1	4.5k	[1] BAUBILLIER	79B	HBC	$K^- p$ 8.25 GeV/c
1380	± 6	150	[1] SUGAHARA	79B	HBC	$\pi^- p$ 6 GeV/c
1387	± 3	12k	[1,2] BARREIRO	77B	HBC	$K^- p$ 4.2 GeV/c
1391	± 3	193	HOLMGREN	77	HBC	See AGUILAR-BENITEZ 81D
1383	± 2		[1] BARDADIN-...	75	HBC	$K^- p$ 14.3 GeV/c
1389	± 1	3060	[3] BERTHON	74	HBC	$K^- p$ 1263–1843 MeV/c
1389	± 9	15	LONDON	66	HBC	$K^- p$ 2.24 GeV/c
1391.5	± 2.6	120	[4] SMITH	65	HBC	$K^- p$ 1.8 GeV/c
1399.8	± 2.2	58	[4] SMITH	65	HBC	$K^- p$ 1.95 GeV/c
1392.0	± 6.2	200	COOPER	64	HBC	$K^- p$ 1.45 GeV/c
1382	± 3	93	DAHL	61	DBC	$K^- d$ 0.45 GeV/c
1376.0	± 4.4	224	[4] ELY	61	HLBC	$K^- p$ 1.11 GeV/c

WEIGHTED AVERAGE
1387.2±0.5 (Error scaled by 2.2)

			χ^2
AGUILAR-...	81D	HBC	0.4
AGUILAR-...	81D	HBC	8.1
CAMERON	78	HBC	1.9
BORENSTEIN	74	HBC	4.4
HABIBI	73	HBC	8.6
THOMAS	73	HBC	0.0
SIEGEL	67	HBC	3.1
ARMENTEROS	65B	HBC	10.1
HUWE	64	HBC	1.0
			37.7

(Confidence Level < 0.0001)

$\Sigma(1385)^-$ mass (MeV)

$m_{\Sigma(1385)^-} - m_{\Sigma(1385)^+}$
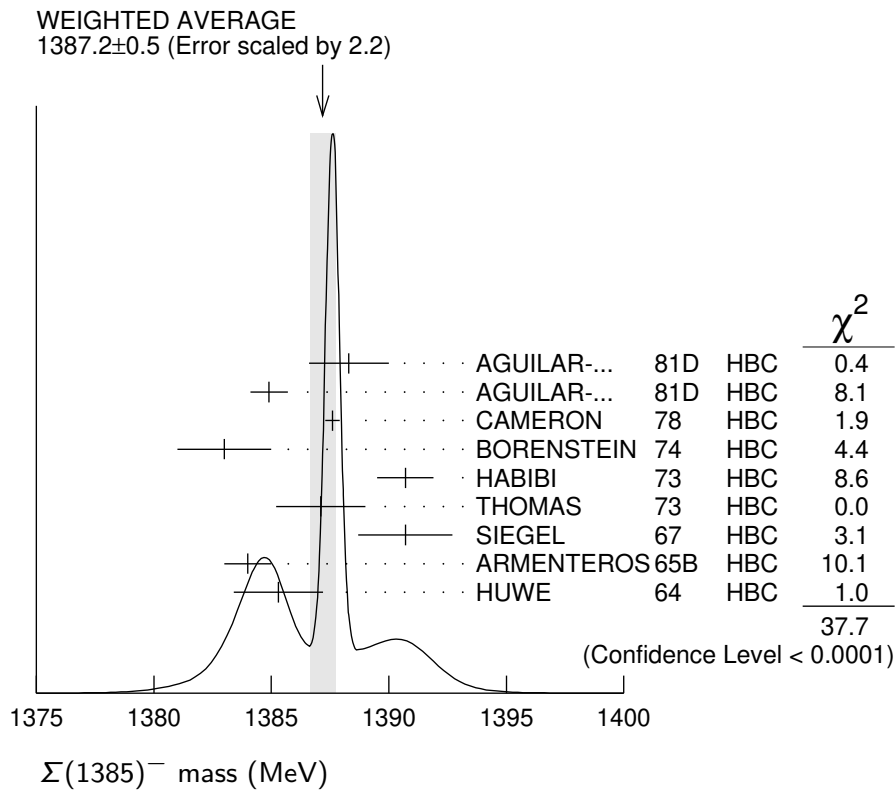
VALUE (MeV)	CL%	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •					
-2 to $+6$	95	[7] BORENSTEIN	74	HBC	$K^- p$ 2.18 GeV/c
7.2 ± 1.4		[7] HABIBI	73	HBC	$K^- p \to \Lambda\pi\pi$
6.3 ± 2.0		[7] SIEGEL	67	HBC	$K^- p$ 2.1 GeV/c
11 ± 9		[7] LONDON	66	HBC	$K^- p$ 2.24 GeV/c
9 ± 6		LONDON	66	HBC	$\Lambda 3\pi$ events
2.0 ± 1.5		[7] ARMENTEROS	65B	HBC	$K^- p$ 0.9–1.2 GeV/c

7.2±2.1	[7] SMITH	65	HBC	K^-p 1.8 GeV/c
17.2±2.0	[7] SMITH	65	HBC	K^-p 1.95 GeV/c
17 ±7	[7] COOPER	64	HBC	K^-p 1.45 GeV/c
4.3±2.2	[7] HUWE	64	HBC	K^-p 1.22 GeV/c
0.0±4.2	[7] ELY	61	HLBC	K^-p 1.11 GeV/c

$m_{\Sigma(1385)^0} - m_{\Sigma(1385)^+}$

VALUE (MeV)	CL%	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
−4 to +4	95	[7] BORENSTEIN 74	HBC	K^-p 2.18 GeV/c

$m_{\Sigma(1385)^-} - m_{\Sigma(1385)^0}$

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •			
2.0±2.4	[7] THOMAS 73	HBC	$\pi^-p \to \Lambda\pi^-K^+$

$\Sigma(1385)$ WIDTHS

$\Sigma(1385)^+$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
36.2± 0.7 OUR AVERAGE				
38.1± 1.5±2.1		LEE 21A	BELL	$\Lambda_c^+ \to \eta\Sigma(1385)^+$
40.2± 2.1$^{+1.2}_{-2.8}$		AGAKISHIEV 12	SPEC	$pp \to \Sigma(1385)^+K^+n$, 3.5 GeV
37.2± 2.0	1897	BAUBILLIER 84	HBC	K^-p 8.25 GeV/c
35.1± 1.7	5256	AGUILAR-... 81D	HBC	$K^-p \to \Lambda\pi\pi$ 4.2 GeV/c
37.5± 2.0	9361	AGUILAR-... 81D	HBC	$K^-p \to \Lambda 3\pi$ 4.2 GeV/c
35.5± 1.9	6900	CAMERON 78	HBC	K^-p 0.96–1.36 GeV/c
34.0± 1.6	6846	[8] BORENSTEIN 74	HBC	K^-p 2.18 GeV/c
38.3± 3.2	2300	[9] HABIBI 73	HBC	$K^-p \to \Lambda\pi\pi$
32.5± 6.0	400	AGUILAR-... 72B	HBC	$K^-p \to \Lambda\pi$'s
36 ± 4	1260	[9] SIEGEL 67	HBC	K^-p 2.1 GeV/c
32.0± 4.7	750	[9] ARMENTEROS65B	HBC	K^-p 0.95–1.20 GeV/c
46.5± 6.4	859	[9] HUWE 64	HBC	K^-p 1.15–1.30 GeV/c
• • • We do not use the following data for averages, fits, limits, etc. • • •				
40 ± 3	600	BAKER 80	HYBR	π^+p 7 GeV/c
37 ± 2	750	BAKER 80	HYBR	K^-p 7 GeV/c
37 ± 2	7k	[1] BAUBILLIER 79B	HBC	K^-p 8.25 GeV/c
30 ± 4	2k	CAUTIS 79	HYBR	π^+p/K^-p 11.5 GeV
30 ± 6	100	[1] SUGAHARA 79B	HBC	π^-p 6 GeV/c
43 ± 5	22k	[1,2] BARREIRO 77B	HBC	K^-p 4.2 GeV/c
34 ± 2	2594	HOLMGREN 77	HBC	See AGUILAR-BENITEZ 81D
40.0± 3.2		[1] BARDADIN-... 75	HBC	K^-p 14.3 GeV/c

48	± 3	3740	[3] BERTHON	74	HBC	$K^- p$ 1263–1843 MeV/c
33	±20	46	[9] AGUILAR-...	70B	HBC	$K^- p \to \Sigma\pi$'s 4 GeV/c
25	±32	62	[9] BIRMINGHAM	66	HBC	$K^- p$ 3.5 GeV/c
30.3±	7.5	250	[9] SMITH	65	HBC	$K^- p$ 1.8 GeV/c
33.1±	8.3	250	[9] SMITH	65	HBC	$K^- p$ 1.95 GeV/c
51	±16	170	[9] COOPER	64	HBC	$K^- p$ 1.45 GeV/c
48	±16	154	[9] ELY	61	HLBC	$K^- p$ 1.11 GeV/c

$\Sigma(1385)^0$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
36 ± 5 OUR AVERAGE					
34.8± 5.6	5722	AGUILAR-...	81D	HBC	$K^- p \to \Lambda 3\pi$ 4.2 GeV/c
39.3±10.2	240	[9] THOMAS	73	HBC	$\pi^- p \to \Lambda\pi^0 K^0$

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

53	± 8	3100	[10] BORENSTEIN	74	HBC	$K^- p \to \Lambda 3\pi$ 2.18 GeV/c
30	± 9	106	CURTIS	63	OSPK	$\pi^- p$ 1.5 GeV/c

$\Sigma(1385)^-$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
39.4± 2.1 OUR AVERAGE	Error includes scale factor of 1.7. See the ideogram below.				
38.4±10.7	620	AGUILAR-...	81D	HBC	$K^- p \to \Lambda\pi\pi$ 4.2 GeV/c
34.6± 4.2	3346	AGUILAR-...	81D	HBC	$K^- p \to \Lambda 3\pi$ 4.2 GeV/c
39.2± 1.7	9720	CAMERON	78	HBC	$K^- p$ 0.96–1.36 GeV/c
35 ± 3	2303	[8] BORENSTEIN	74	HBC	$K^- p$ 2.18 GeV/c
51.9± 4.8	1900	[9] HABIBI	73	HBC	$K^- p \to \Lambda\pi\pi$
48.2± 7.7	630	[9] THOMAS	73	HBC	$\pi^- p \to \Lambda\pi^- K^0$
31.0± 6.5	370	[9] SIEGEL	67	HBC	$K^- p$ 2.1 GeV/c
38.0± 4.1	1382	[9] ARMENTEROS65B	HBC	$K^- p$ 0.95–1.20 GeV/c
62 ± 7	1086	HUWE	64	HBC	$K^- p$ 1.15–1.30 GeV/c

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

44	± 4	4.5k	[1] BAUBILLIER	79B	HBC	$K^- p$ 8.25 GeV/c
58	± 4	150	[1] SUGAHARA	79B	HBC	$\pi^- p$ 6 GeV/c
45	± 5	12k	[1,2] BARREIRO	77B	HBC	$K^- p$ 4.2 GeV/c
35	±10	193	HOLMGREN	77	HBC	See AGUILAR-BENITEZ 81D
47	± 6		[1] BARDADIN-...	75	HBC	$K^- p$ 14.3 GeV/c
40	± 3	3060	[3] BERTHON	74	HBC	$K^- p$ 1263–1843 MeV/c
29.2±10.6		120	[9] SMITH	65	HBC	$K^- p$ 1.80 GeV/c
17.1± 8.9		58	[9] SMITH	65	HBC	$K^- p$ 1.95 GeV/c
88	±24	200	[9] COOPER	64	HBC	$K^- p$ 1.45 GeV/c
40			DAHL	61	DBC	$K^- d$ 0.45 GeV/c
66	±18	224	[9] ELY	61	HLBC	$K^- p$ 1.11 GeV/c

WEIGHTED AVERAGE
39.4±2.1 (Error scaled by 1.7)

				χ^2
AGUILAR-...	81D	HBC	0.0
AGUILAR-...	81D	HBC	1.3
CAMERON	78	HBC	0.0
BORENSTEIN	74	HBC	2.2
HABIBI	73	HBC	6.7
THOMAS	73	HBC	1.3
SIEGEL	67	HBC	1.7
ARMENTEROS	65B	HBC	0.1
HUWE	64	HBC	10.4

23.8
(Confidence Level = 0.0025)

$\Sigma(1385)^-$ width (MeV)
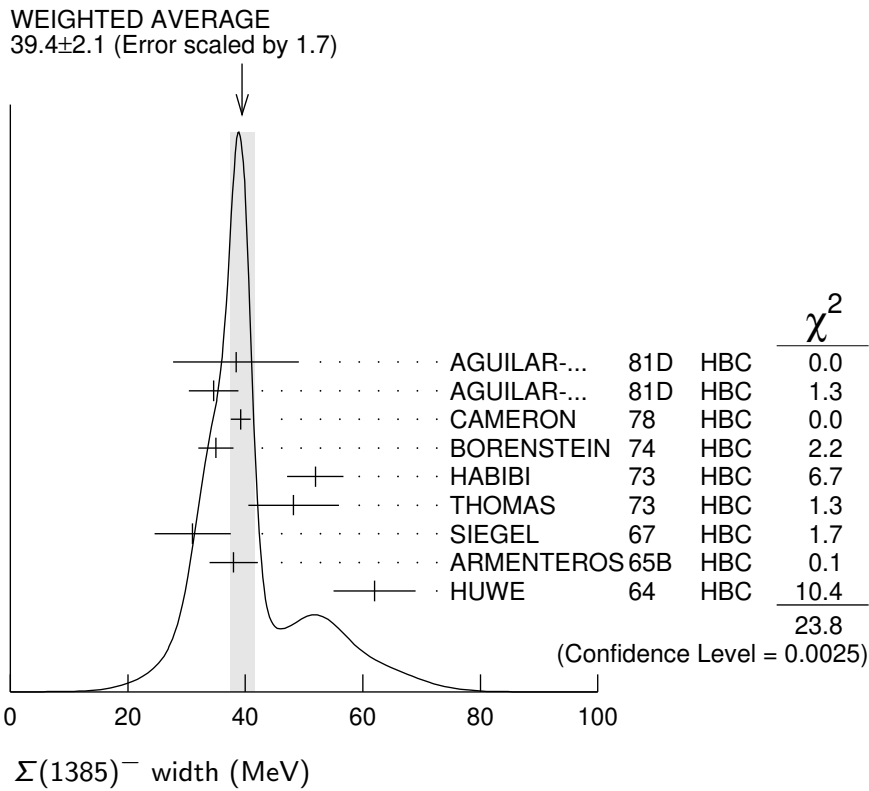
$\Sigma(1385)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)	Confidence level
Γ_1	$\Lambda\pi$	$(87.0 \pm 1.5)\%$	
Γ_2	$\Sigma\pi$	$(11.7 \pm 1.5)\%$	
Γ_3	$\Lambda\gamma$	$(1.25^{+0.13}_{-0.12})\%$	
Γ_4	$\Sigma^+\gamma$	$(7.0 \pm 1.7)\times 10^{-3}$	
Γ_5	$\Sigma^-\gamma$	$< 2.4 \times 10^{-4}$	90%
Γ_6	$N\overline{K}$		

$\Sigma(1385)$ BRANCHING RATIOS

$\Gamma(\Sigma\pi)/\Gamma(\Lambda\pi)$ Γ_2/Γ_1

VALUE	DOCUMENT ID		TECN	CHG	COMMENT
0.135±0.011 OUR AVERAGE					
0.20 ±0.06	DIONISI	78B	HBC	±	$K^-p \to Y^* K\overline{K}$
0.16 ±0.03	BERTHON	74	HBC	+	K^-p 1.26–1.84 GeV/c
0.11 ±0.02	BERTHON	74	HBC	−	K^-p 1.26–1.84 GeV/c
0.21 ±0.05	BORENSTEIN	74	HBC	+	$K^-p \to \Lambda\pi^+\pi^-$, $\Sigma^0\pi^+\pi^-$
0.18 ±0.04	MAST	73	MPWA	±	$K^-p \to \Lambda\pi^+\pi^-$, $\Sigma^0\pi^+\pi^-$
0.10 ±0.05	THOMAS	73	HBC	−	$\pi^-p \to \Lambda K\pi, \Sigma K\pi$

VALUE	DOCUMENT ID	TECN	CHG	COMMENT
0.16 ± 0.07	AGUILAR-... 72B	HBC	+	$K^- p$ 3.9, 4.6 GeV/c
0.13 ± 0.04	COLLEY 71B	DBC	-0	$K^- N$ 1.5 GeV/c
0.13 ± 0.04	PAN 69	HBC	+	$\pi^+ p \to \Lambda K \pi, \Sigma K \pi$
0.08 ± 0.06	LONDON 66	HBC	+	$K^- p$ 2.24 GeV/c
0.163 ± 0.041	ARMENTEROS65B	HBC	$\pm$	$K^- p$ 0.95–1.20 GeV/c
0.09 ± 0.04	HUWE 64	HBC	$\pm$	$K^- p$ 1.2–1.7 GeV

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

<0.04	ALSTON 62	HBC	± 0	$K^- p$ 1.15 GeV/c
0.04 ± 0.04	BASTIEN 61	HBC	$\pm$	

$\Gamma(\Lambda\gamma)/\Gamma(\Lambda\pi)$ Γ_3/Γ_1

This ratio is of course for $\Sigma(1385)^0 \to \Lambda\gamma$ and $\Lambda\pi^0$.

VALUE (units 10^{-2})	EVTS	DOCUMENT ID	TECN	COMMENT
$1.43^{+0.15}_{-0.13}$ **OUR AVERAGE**				
$1.42 \pm 0.12^{+0.11}_{-0.07}$	624 ± 25	KELLER 11	CLAS	$\gamma p \to K^+ \Lambda\gamma$, E_γ 1.6–3.8 GeV
$1.53 \pm 0.39^{+0.15}_{-0.24}$	61	TAYLOR 05	CLAS	$\gamma p \to K^+ \Lambda\gamma$

$\Gamma(\Sigma^+\gamma)/\Gamma(\Sigma\pi)$ Γ_4/Γ_2

This ratio is for $\Sigma(1385)^+ \to \Sigma^+\gamma$ over $\Sigma(1385)^+ \to \Sigma\pi$.

VALUE (%)	DOCUMENT ID	TECN	COMMENT
$5.98 \pm 1.11^{+0.27}_{-0.61}$	[11] KELLER 12	CLAS	$\gamma p \to K^0 \Sigma(1385)^+$

$\Gamma(\Sigma^-\gamma)/\Gamma_{\text{total}}$ Γ_5/Γ

VALUE	CL%	DOCUMENT ID	TECN	CHG	COMMENT
$<2.4 \times 10^{-4}$	90	[12] MOLCHANOV 04	SELX	$-$	Σ^- Pb $\to \Sigma(1385)^-$ Pb, 600 GeV

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

$<6.1 \times 10^{-4}$	90	[13] ARIK 77	SPEC	$-$	Σ^- Pb $\to \Sigma(1385)^-$ Pb, 23 GeV

$(\Gamma_i\Gamma_f)^{1/2}/\Gamma_{\text{total}}$ in $N\overline{K} \to \Sigma(1385) \to \Lambda\pi$ $(\Gamma_6\Gamma_1)^{1/2}/\Gamma$

VALUE	DOCUMENT ID	CHG	COMMENT
$+0.586 \pm 0.319$	[14] DEVENISH 74B	0	Fixed-t dispersion rel.

$\Sigma(1385)$ FOOTNOTES

[1] From fit to inclusive $\Lambda\pi$ spectrum.
[2] Includes data of HOLMGREN 77.
[3] The errors are statistical only. The resolution is not unfolded.
[4] The error is enlarged to $\Gamma/\sqrt{N}$. See the note on the $K^*(892)$ mass in the 1984 edition.
[5] From a fit to $\Lambda\pi^0$ with the width fixed at 34 MeV.
[6] From fit to inclusive $\Lambda\pi^0$ spectrum with the width fixed at 40 MeV.
[7] Redundant with data in the mass Listings.
[8] Results from $\Lambda\pi^+\pi^-$ and $\Lambda\pi^+\pi^-\pi^0$ combined by us.
[9] The error is enlarged to $4\Gamma/\sqrt{N}$. See the note on the $K^*(892)$ mass in the 1984 edition.
[10] Consistent with $+$, 0, and $-$ widths equal.

[11] KELLER 12 gives $\Gamma(\Sigma^+\gamma)/\Gamma(\Sigma^+\pi^0) = (11.95 \pm 2.21 {}^{+0.53}_{-1.21})\%$, using 1/2 our total $\Sigma(1385) \to \Sigma\pi$ fraction for $\Sigma^+\pi^0$. We divide the KELLER 12 value by two.

[12] We calculate this from the MOLCHANOV 04 upper limit of 9.5 keV on the $\Sigma^-\gamma$ width.

[13] We calculate this from the ARIK 77 upper limit of 24 keV on the $\Sigma^-\gamma$ width.

[14] An extrapolation of the parametrized amplitude below threshold.

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