$N(1875) \ 3/2^-$

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

Before the 2012 *Review*, all the evidence for a $J^P=3/2^-$ state with a mass above 1800 MeV was filed under a two-star N(2080). There is now evidence from ANISOVICH 12A for two $3/2^-$ states in this region, so we have split the older data (according to mass) between a three-star N(1875) and a two-star N(2120).

N(1875) POLE POSITION

REAL PART	Γ
VALUE (MaV)	

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
1800 to 1950 OUR ESTIMATE				
1870± 20	SOKHOYAN	15A	DPWA	Multichannel
	SVARC		L+P	$\pi N \rightarrow \pi N$
1880 ± 100	CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N \text{ (lower } m)$
• • • We do not use the following d	lata for averages	, fits,	limits, e	tc. • • •
1810	SHKLYAR	13	DPWA	Multichannel
1860± 25	ANISOVICH	12A	DPWA	Multichannel
1975	SHRESTHA	12A	DPWA	Multichannel
1957± 49	BATINIC	10	DPWA	$\pi N \rightarrow N \pi, N \eta$
1824	VRANA	00	DPWA	Multichannel
-2×IMAGINARY PART				
VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
_				
VALUE (MeV) 150 to 250 OUR ESTIMATE 200 ± 15	SOKHOYAN		DPWA	Multichannel
VALUE (MeV) 150 to 250 OUR ESTIMATE 200 ± 15 296 ± 15 ± 4	SOKHOYAN SVARC	14	DPWA L+P	Multichannel $\pi N \rightarrow \pi N$
VALUE (MeV) 150 to 250 OUR ESTIMATE 200 ± 15 296 ± 15 ± 4 160 ± 80	SOKHOYAN SVARC CUTKOSKY	14 80	DPWA L+P IPWA	Multichannel $\pi N \rightarrow \pi N \\ \pi N \rightarrow \pi N \text{ (lower } m)$
VALUE (MeV) 150 to 250 OUR ESTIMATE 200 ± 15 296 ± 15 ± 4	SOKHOYAN SVARC CUTKOSKY	14 80	DPWA L+P IPWA	Multichannel $\pi N \rightarrow \pi N \\ \pi N \rightarrow \pi N \text{ (lower } m)$
VALUE (MeV) 150 to 250 OUR ESTIMATE 200 ± 15 296 ± 15 ± 4 160 ± 80	SOKHOYAN SVARC CUTKOSKY	14 80	DPWA L+P IPWA limits, e	Multichannel $\pi N \rightarrow \pi N \\ \pi N \rightarrow \pi N \text{ (lower } m)$
VALUE (MeV) 150 to 250 OUR ESTIMATE 200± 15 296± 15±4 160± 80 • • • We do not use the following of	SOKHOYAN SVARC CUTKOSKY lata for averages	14 80 s, fits,	DPWA L+P IPWA limits, e	Multichannel $\pi N \to \pi N$ $\pi N \to \pi N$ (lower m) etc. $\bullet \bullet$
VALUE (MeV) 150 to 250 OUR ESTIMATE 200 ± 15 296 ± 15 ± 4 160 ± 80 • • • We do not use the following of 98	SOKHOYAN SVARC CUTKOSKY lata for averages	14 80 s, fits, 13 12A	DPWA L+P IPWA limits, e DPWA DPWA	Multichannel $\pi N \to \pi N$ $\pi N \to \pi N$ (lower m) etc. $\bullet \bullet \bullet$
VALUE (MeV) 150 to 250 OUR ESTIMATE 200 ± 15 296 ± 15 ± 4 160 ± 80 • • • We do not use the following of 98 200 ± 20	SOKHOYAN SVARC CUTKOSKY lata for averages SHKLYAR ANISOVICH	14 80 s, fits, 13 12A	DPWA L+P IPWA limits, e DPWA DPWA DPWA	Multichannel $\pi N \to \pi N$ $\pi N \to \pi N$ (lower m) etc. $\bullet \bullet \bullet$ Multichannel Multichannel
VALUE (MeV) 150 to 250 OUR ESTIMATE 200 ± 15 296 ± 15 ± 4 160 ± 80 • • • We do not use the following of 98 200 ± 20 495	SOKHOYAN SVARC CUTKOSKY lata for averages SHKLYAR ANISOVICH SHRESTHA	14 80 s, fits, 13 12A 12A	DPWA L+P IPWA limits, e DPWA DPWA DPWA DPWA	Multichannel $\pi N \to \pi N$ $\pi N \to \pi N$ (lower m) etc. $\bullet \bullet \bullet$ Multichannel Multichannel Multichannel

N(1875) ELASTIC POLE RESIDUE

MODULUS |r|

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
2 to 10 OUR ESTIMATE				
3 ± 1.5	SOKHOYAN	_		Multichannel
$13 \pm 1 \pm 1$	¹ SVARC	14	L+P	$\pi N \rightarrow \pi N$
10 ± 5	² CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N \text{ (lower } m)$
• • • We do not use the follow	ing data for average	s, fits,	limits, e	etc. • • •
3	SHKLYAR	13	DPWA	Multichannel
2.5 ± 1.0	ANISOVICH	12A	DPWA	Multichannel
53	BATINIC	10	DPWA	$\pi N \rightarrow N\pi, N\eta$

HTTP://PDG.LBL.GOV

Page 1

PHASE θ

VALUE (°)	DOCUMENT ID		TECN	COMMENT
160 ± 50	SOKHOYAN	15A	DPWA	Multichannel
$-$ 2 \pm 4 \pm 9	¹ SVARC			$\pi N \rightarrow \pi N$
100 ± 80	² CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N \text{ (lower } m)$
ullet $ullet$ We do not use the following	data for averages	s, fits,	limits, e	etc. • • •
- 76	SHKLYAR	13	DPWA	Multichannel
– 65	BATINIC	10	DPWA	$\pi N \rightarrow N \pi, N \eta$

N(1875) INELASTIC POLE RESIDUE

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

Normalized residue in $N\pi \rightarrow N(1875) \rightarrow \Sigma K$

MODULUSDOCUMENT IDTECNCOMMENT 0.04 ± 0.02 ANISOVICH12ADPWAMultichannel

Normalized residue in $N\pi \rightarrow N(1875) \rightarrow N\sigma$

MODULUS PHASE (°) DOCUMENT ID TECN COMMENT 0.09 ± 0.03 −175 ± 45 SOKHOYAN 15A DPWA Multichannel

• • • We do not use the following data for averages, fits, limits, etc. • • • 0.08 ± 0.03 −170 ± 65 ANISOVICH 12A DPWA Multichannel

Normalized residue in $N\pi \rightarrow N(1875) \rightarrow \Delta(1232)\pi$, S-wave

MODULUSPHASE (°)DOCUMENT IDTECNCOMMENT 0.05 ± 0.03 undefinedSOKHOYAN15ADPWAMultichannel

Normalized residue in $N\pi \to N(1875) \to \Delta(1232)\pi$, *D*-wave

MODULUSPHASE ($^{\circ}$)DOCUMENT IDTECNCOMMENT 0.04 ± 0.02 undefinedSOKHOYAN15ADPWAMultichannel

Normalized residue in $N\pi \rightarrow N(1875) \rightarrow N(1440)\pi$

MODULUSPHASE (°)DOCUMENT IDTECNCOMMENT 0.03 ± 0.02 undefinedSOKHOYAN15ADPWAMultichannel

N(1875) BREIT-WIGNER MASS

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
1820 to 1920 (≈ 1875) OUR ESTI	MATE			
1875± 20	SOKHOYAN	15A	DPWA	Multichannel
1934 ± 10	SHKLYAR			
1880 ± 100	² CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N$

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

$1880\pm$	20	ANISOVICH	12A	DPWA	Multichannel
$1951\pm$	27	SHRESTHA	12A	DPWA	Multichannel
$2048\pm$	65	BATINIC	10	DPWA	$\pi N \rightarrow N\pi, N\eta$
$1946\pm$	1	PENNER	02 C	DPWA	Multichannel
1895		MART	00	DPWA	$\gamma p \rightarrow \Lambda K^+$
$2003\pm$	18	VRANA	00	DPWA	Multichannel

N(1875) BREIT-WIGNER WIDTH

VALUE (MeV)	DOCUMENT ID		TECN	COMMENT
250 \pm 70 OUR ESTIMATE				
200 ± 25	SOKHOYAN	15A	DPWA	Multichannel
857 ± 100	SHKLYAR	13	DPWA	Multichannel
$180\pm$ 60	² CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N \text{ (lower } m)$
• • • We do not use the following	data for average			
200± 25	ANISOVICH	12A	DPWA	Multichannel
500± 45	SHRESTHA	12A	DPWA	Multichannel
529 ± 128	BATINIC	10	DPWA	π N $ ightarrow$ N π , N η
859 ± 7	PENNER	02C	DPWA	Multichannel
372	MART	00	DPWA	$\gamma p \rightarrow \Lambda K^+$
1070 ± 858	VRANA	00	DPWA	Multichannel

N(1875) DECAY MODES

	Mode	Fraction (Γ_i/Γ)	
$\overline{\Gamma_1}$	$N\pi$	2–14 %	
Γ_2	$N\eta$	<1 %	
Γ_3	$N\omega$	15–25 %	
Γ_4	ΛK	seen	
Γ_5	ΣK	seen	
Γ_6	$N\pi\pi$		
Γ_7	$\Delta(1232)\pi$	10–35 %	
Γ ₈	${\it \Delta}(1232)\pi$, $\it S$ -wave	7–21 %	
Γ_9	${\it \Delta}(1232)\pi$, ${\it D}$ -wave	2–12 %	
Γ_{10}	$N\rho$, $S=3/2$, S -wave	seen	
Γ_{11}	$N\sigma$	30–60 %	
Γ_{12}	$N(1440)\pi$	2–8 %	
Γ_{13}	$N(1520)\pi$	<2 %	
Γ_{14}	$p\gamma$	0.001–0.025 %	
Γ_{15}	$p\gamma$, helicity=1/2	0.001–0.021 %	
Γ_{16}	$p\gamma$, helicity=3/2	<0.003 %	
Γ_{17}	$n\gamma$	<0.040 %	
Γ_{18}	$n\gamma$, helicity=1/2	<0.007 %	
Γ ₁₉	$n\gamma$, helicity=3/2	<0.033 %	

N(1875) BRANCHING RATIOS

$\Gamma(N\pi)/\Gamma_{\text{total}}$				Γ_1/Γ
VALUE (%)	DOCUMENT ID		TECN	COMMENT
7±6 OUR ESTIMATE				
4±2	SOKHOYAN	15A		Multichannel
11 ± 1	SHKLYAR	13		Multichannel
	CUTKOSKY	80	IPWA	$\pi N \rightarrow \pi N \text{ (lower } m)$
• • • We do not use the following d	_	s, fits,	limits, e	etc. • • •
3 ± 2	ANISOVICH	12A	DPWA	Multichannel
7 ± 2	SHRESTHA	12A		Multichannel
17 ± 7	BATINIC	10		$\pi N \rightarrow N \pi, N \eta$
12 ± 2	PENNER	0 2C		Multichannel
13 ± 3	VRANA	00	DPWA	Multichannel
$\Gamma(N\eta)/\Gamma_{total}$				Γ_2/Γ
VALUE (%)	DOCUMENT ID		TECN	COMMENT
0±1	SHKLYAR	13	DPWA	Multichannel
• • • We do not use the following d	lata for averages	s, fits,	limits, e	etc. • • •
8±3	BATINIC	10	DPWA	$\pi N \rightarrow N \pi, N \eta$
7±2	PENNER	02 C	DPWA	Multichannel
0 ± 2	VRANA	00	DPWA	Multichannel
$\Gamma(N\omega)/\Gamma_{total}$				Г ₃ /Г
VALUE (%)	DOCUMENT ID		TECN	COMMENT
13±7	DENISENKO	16	DPWA	Multichannel
20 ± 5	SHKLYAR	13	DPWA	Multichannel
• • • We do not use the following d	lata for averages	s, fits,	limits, e	etc. • • •
21±7	PENNER	02 C	DPWA	Multichannel
$\Gamma(\Lambda K)/\Gamma_{\text{total}}$				Γ_4/Γ
VALUE (%)	DOCUMENT ID		TECN	COMMENT
• • • We do not use the following d	lata for averages	s, fits,	limits, e	etc. • • •
$0.2 \!\pm\! 0.2$	PENNER	0 2C	DPWA	Multichannel
$\Gamma(\Sigma K)/\Gamma_{total}$				Γ ₅ /Γ
VALUE (%)	DOCUMENT ID		TECN	COMMENT
0.7±0.4	PENNER	020		Multichannel
		020	DI WIT	Watterlamer
$\Gamma(\Delta(1232)\pi$, <i>S</i> -wave $)/\Gamma_{total}$				Γ ₈ /Γ
VALUE (%)	DOCUMENT ID		TECN	COMMENT
14± 7	SOKHOYAN	-		Multichannel
• • • We do not use the following d	lata for averages	s, fits,	limits, e	etc. • • •
87± 3	SHRESTHA	12A	DPWA	Multichannel
40 ± 10	VRANA	00	DPWA	Multichannel

I

$\Gamma(\Delta(1232)\pi, D$ -wave)					Γ_9/Γ
VALUE (%)	DOCUMENT ID		TECN	-	
7 ± 5 • • • We do not use the fi	SOKHOYAN following data for average			Multichannel	
< 6 17±10	SHRESTHA VRANA	12A	DPWA	Multichannel Multichannel	
Γ(Nρ, S=3/2, S-wave) VALUE (%))/ $\Gamma_{ ext{total}}$		TECN	COMMENT	Γ_{10}/Γ
• • • We do not use the f					
<5 6±6	SHRESTHA VRANA		DPWA	Multichannel Multichannel	
$\Gamma(N\sigma)/\Gamma_{total}$					Γ_{11}/Γ
VALUE (%)	DOCUMENT ID			COMMENT	
45 ± 15	SOKHOYAN			Multichannel	
• • • We do not use the f					
< 4 24 \pm 24	SHRESTHA VRANA			Multichannel Multichannel	
_			2		
$\Gamma(N(1440)\pi)/\Gamma_{total}$					Γ ₁₂ /Γ
VALUE (%)	DOCUMENT ID			COMMENT	
5±3	SOKHOYAN	15A	DPWA	Multichannel	
$\Gamma(N(1520)\pi)/\Gamma_{total}$					Γ_{13}/Γ
				COLUMN	
VALUE (%)	DOCUMENT ID			COMMENT	
<u>VALUE (%)</u> <2	<u>DOCUMENT ID</u> SOKHOYAN			Multichannel	
<2		15A	DPWA	Multichannel	
<2 N(1875) PHO	SOKHOYAN OTON DECAY AMPL	15A .ITUE	DPWA	Multichannel	
$N(1875)$ PHO $N(1875) o p\gamma$, helic	SOKHOYAN OTON DECAY AMPL ity-1/2 amplitude A _{1/2}	15A .ITUE /2	DPWA	Multichannel THE POLE	
<2 N(1875) PHO	SOKHOYAN OTON DECAY AMPL ity-1/2 amplitude A _{1/1} DOCUMEN	15A .ITUC /2	DPWA DES AT	Multichannel THE POLE	nel
N (1875) PHC N (1875) → $pγ$, helic $MODULUS (GeV^{-1/2})$ PHAS 0.017 ± 0.009 −11	SOKHOYAN OTON DECAY AMPL Sity-1/2 amplitude A_{1} SE (°) 0 ± 40 SOKHOYAN SOKHOYAN SOKHOYAN	15A ITUD /2 //AN	DPWA DES AT	Multichannel THE POLE COMMENT	nel
$N(1875)$ PHO $N(1875) \rightarrow p\gamma$, helic $MODULUS (GeV^{-1/2})$ 0.017 ± 0.009 $PHAS$ -11 $N(1875) \rightarrow p\gamma$, helic	SOKHOYAN OTON DECAY AMPL Sity-1/2 amplitude $A_{1/2}$ $\frac{DOCUMEN}{SOKHOY}$ 0 ± 40 SOKHOY Sity-3/2 amplitude $A_{3/2}$	15A .ITUD /2 /AN /2	DPWA DES AT TE 15A DI	Multichannel THE POLE COMMENT PWA Multichani	
N (1875) PHC N (1875) → $pγ$, helic $MODULUS (GeV^{-1/2})$ PHAS 0.017 ± 0.009 −11	SOKHOYAN DTON DECAY AMPL Sity-1/2 amplitude A _{1/2} SE (°) 0 ± 40 SOKHOYAN DOCUMEN SOKHOYAN DOCUMEN DOCUMEN DOCUMEN DOCUMEN	15A .ITUC /2 // // // // // // // // // // // //	DPWA DES AT TE 15A DI	Multichannel THE POLE COMMENT PWA Multichani COMMENT	
N (1875) PHC N (1875) → $p\gamma$, helic $MODULUS (GeV^{-1/2})$ PHAS 0.017 ± 0.009 −11 N (1875) → $p\gamma$, helic $MODULUS (GeV^{-1/2})$ PHAS 0.008 ± 0.004 180	SOKHOYAN OTON DECAY AMPL Sity-1/2 amplitude A _{1/2} SE (°) 0 ± 40 SOKHOYAN DOCUMEN SOKHOY SOKHOY DOCUMEN SOKHOY DOCUMEN SOKHOY SOKHOY SOKHOY	15A .ITUE /2 //A //A //2 //T ID //AN	DPWA DES AT 15A DI 15A DI	Multichannel THE POLE COMMENT WA Multichant COMMENT COMMENT WA Multichant	
$N(1875)$ PHO $N(1875) \rightarrow p\gamma$, helic $MODULUS (GeV^{-1/2})$ PHAS 0.017 ± 0.009 -11 $N(1875) \rightarrow p\gamma$, helic $MODULUS (GeV^{-1/2})$ PHAS 0.008 ± 0.004 180 $N(1875)$ BRE	SOKHOYAN OTON DECAY AMPL Sity-1/2 amplitude A ₁ , SE (°) 0 ± 40 SOKHOYAN DOCUMENT SOKHOY SOKHOY DOCUMENT SOKHOY TI-WIGNER PHOTO	15A ITUE /2 /AN /2 /AN /AN N DE	DPWA DES AT 15A DI 15A DI	Multichannel THE POLE COMMENT WA Multichant COMMENT COMMENT WA Multichant	
N (1875) PHC N (1875) → $p\gamma$, helic $MODULUS (GeV^{-1/2})$ PHAS 0.017 ± 0.009 −11 N (1875) → $p\gamma$, helic $MODULUS (GeV^{-1/2})$ PHAS 0.008 ± 0.004 180	SOKHOYAN OTON DECAY AMPL Sity-1/2 amplitude A ₁ , SE (°) 0 ± 40 SOKHOYAN DOCUMENT SOKHOY SOKHOY DOCUMENT SOKHOY TI-WIGNER PHOTO	15A ITUE /2 /AN /2 /AN /AN N DE	DPWA DES AT 15A DI 15A DI	Multichannel THE POLE COMMENT WA Multichant COMMENT COMMENT WA Multichant	
N (1875) PHC N (1875) → $p\gamma$, helic N (1875) BRE N (1875) → $p\gamma$, helic	SOKHOYAN OTON DECAY AMPL Sity-1/2 amplitude A ₁ , SE (°) 0 ± 40 SOKHOYAN DOCUMENT SOKHOY SOKHOY DOCUMENT SOKHOY TI-WIGNER PHOTO	15A .ITUE /2 //AN /2 //AN /AN N DE	DPWA DES AT 15A DI CAY A	Multichannel THE POLE COMMENT PWA Multichant COMMENT PWA Multichant MPLITUDES	
$N(1875)$ PHO $N(1875) \rightarrow p\gamma$, helico $MODULUS (GeV^{-1/2})$ PHAS 0.017 ± 0.009 -11 $N(1875) \rightarrow p\gamma$, helico $MODULUS (GeV^{-1/2})$ PHAS 0.008 ± 0.004 180 $N(1875)$ BRE $N(1875) \rightarrow p\gamma$, helico $VALUE (GeV^{-1/2})$ 0.018 ± 0.010	SOKHOYAN DTON DECAY AMPL Sity-1/2 amplitude A ₁ , SE (°) 0 ± 40 SOKHOY SOKHOY SOKHOY SOKHOY SOKHOY TI-WIGNER PHOTO Sity-1/2 amplitude A ₁ , DOCUMENT ID ANISOVICH	15A ITUE /2 //AN //AN N DE //2	DPWA DES AT TE 15A DI CAY A TECN DPWA	Multichannel THE POLE COMMENT WA Multichan COMMENT MPLITUDES COMMENT Multichannel	
$N(1875)$ PHO $N(1875) \rightarrow p\gamma$, helico $MODULUS (GeV^{-1/2})$ PHAS 0.017 ± 0.009 -11 $N(1875) \rightarrow p\gamma$, helico $MODULUS (GeV^{-1/2})$ PHAS 0.008 ± 0.004 180 $N(1875)$ BRE $N(1875) \rightarrow p\gamma$, helico $VALUE (GeV^{-1/2})$ 0.018 ± 0.010 • • • We do not use the form	SOKHOYAN DTON DECAY AMPL Sity-1/2 amplitude A ₁ , SE (°) 0 ± 40 SOKHOY SOKHOY SOKHOY DOCUMEN SOKHOY TI-WIGNER PHOTO Sity-1/2 amplitude A ₁ , DOCUMENT ID ANISOVICH following data for average	15A .ITUC /2 // /AN /2 // /AN N DE /2 12A es, fits,	DPWA DES AT TE 15A DI CAY A TECN DPWA Imits, 6	Multichannel THE POLE COMMENT PWA Multichand COMMENT PWA Multichand MPLITUDES COMMENT Multichand MULTICHA	
$N(1875) \ PHO$ $N(1875) \ PHO$ $N(1875) \ Pho$, helicomodulus $(GeV^{-1/2})$ PHAS 0.017 ± 0.009 PHAS 0.017 ± 0.009 PHAS 0.008 ± 0.004 PHAS $0.008 \pm $	SOKHOYAN DTON DECAY AMPL Sity-1/2 amplitude A ₁ , SE (°) 0 ± 40 SOKHOY SOKHOY SOKHOY DOCUMENT SOKHOY ANISOVICH following data for average SHKLYAR	15A ITUE /2 // AN /2 // AN N DE /2 12A es, fits, 13	DPWA DES AT TECN DPWA Imits, 6 DPWA	Multichannel THE POLE COMMENT PWA Multichand COMMENT PWA Multichand MPLITUDES COMMENT Multichannel etc. • • • Multichannel	
$N(1875)$ PHO $N(1875) \rightarrow p\gamma$, helico $MODULUS (GeV^{-1/2})$ PHAS 0.017 ± 0.009 -11 $N(1875) \rightarrow p\gamma$, helico $MODULUS (GeV^{-1/2})$ PHAS 0.008 ± 0.004 180 $N(1875)$ BRE $N(1875) \rightarrow p\gamma$, helico $VALUE (GeV^{-1/2})$ 0.018 ± 0.010 • • • We do not use the form	SOKHOYAN DTON DECAY AMPL Sity-1/2 amplitude A ₁ , SE (°) 0 ± 40 SOKHOY SOKHOY SOKHOY DOCUMEN SOKHOY TI-WIGNER PHOTO Sity-1/2 amplitude A ₁ , DOCUMENT ID ANISOVICH following data for average SHKLYAR SHRESTHA	15A ITUE /2 // AN // AN N DE /2 12A es, fits, 13 12A	DPWA TECN DPWA Imits, e DPWA DPWA DPWA DPWA	Multichannel THE POLE COMMENT PWA Multichand COMMENT PWA Multichand MPLITUDES COMMENT Multichannel etc. • • • Multichannel Multichannel Multichannel	
$N(1875) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	SOKHOYAN DTON DECAY AMPL Sity-1/2 amplitude A ₁ , SE (°) 0 ± 40 SOKHOY SOKHOY DOCUMEN SOKHOY DOCUMEN SOKHOY TI-WIGNER PHOTO Sity-1/2 amplitude A ₁ , DOCUMENT ID ANISOVICH following data for average SHKLYAR SHRESTHA PENNER	15A ITUE /2 //AN /2 //AN N DE /2 12A es, fits, 13 12A 02D	DPWA TECN DPWA Imits, 6 DPWA DPWA DPWA DPWA DPWA	Multichannel THE POLE COMMENT PWA Multichand COMMENT PWA Multichand MPLITUDES COMMENT Multichannel etc. • • • Multichannel Multichannel Multichannel	nel

$N(1875) \rightarrow p\gamma$, helicity-3/2 amplitude A_{3/2}

$VALUE~({ m GeV}^{-1/2})$	DOCUMENT ID		TECN	COMMENT	
-0.007 ± 0.004	SOKHOYAN	15A	DPWA	Multichannel	
• • • We do not use the following	data for average	s, fits,	limits, e	etc. • • •	
0.026 ± 0.001	SHKLYAR	13	DPWA	Multichannel	
-0.009 ± 0.005	ANISOVICH	12A	DPWA	Multichannel	
0.043 ± 0.022	SHRESTHA	12A	DPWA	Multichannel	
-0.010	PENNER	02 D	DPWA	Multichannel	
$N(1875) \rightarrow n\gamma$, helicity-1/2 amplitude $A_{1/2}$					
$VALUE~({ m GeV}^{-1/2})$	DOCUMENT ID		TECN	COMMENT	

$VALUE$ (GeV $^{-1/2}$)	DOCUMENT ID		TECN	COMMENT	
0.010 ± 0.006	ANISOVICH	13 B	DPWA	Multichannel	
• • • We do no	t use the following data for average	es, fits,	limits, e	tc. • • •	
0.055 ± 0.021	SHRESTHA	12A	DPWA	Multichannel	
0.023	PENNER	02 D	DPWA	Multichannel	

$N(1875) \rightarrow n\gamma$, helicity-3/2 amplitude A_{3/2}

$VALUE~({ m GeV}^{-1/2})$	DOCUMENT ID		TECN	COMMENT
-0.020 ± 0.015	ANISOVICH	13 B	DPWA	Multichannel
• • • We do not use the following	data for average	s, fits,	limits, e	tc. • • •
-0.085 ± 0.031	SHRESTHA	12A	DPWA	Multichannel
-0.009	PENNER	02 D	DPWA	Multichannel

N(1875) FOOTNOTES

N(1875) REFERENCES

For early references, see Physics Letters 111B 1 (1982).

SOKHOYAN SVARC ANISOVICH SHKLYAR ANISOVICH SHRESTHA BATINIC PENNER PENNER MART VRANA CUTKOSKY Also	16 15A 14 13B 13 12A 10 02C 02D 00 00 80	PL B755 97 EPJ A51 95 PR C89 045205 EPJ A49 67 PR C87 015201 EPJ A48 15 PR C86 055203 PR C82 038203 PR C66 055211 PR C66 055212 PR C61 012201 PRPL 328 181 Toronto Conf. 19 PR D20 2839	I. Denisenko et al. V. Sokhoyan et al. A. Svarc et al. A.V. Anisovich et al. V. Shklyar, H. Lenske, U. Mosel A.V. Anisovich et al. M. Shrestha, D.M. Manley M. Batinic et al. G. Penner, U. Mosel G. Penner, U. Mosel T. Mart, C. Bennhold T.P. Vrana, S.A. Dytman, TS.H R.E. Cutkosky et al. G. Halbersty et al.	(CMU, LBL) IJP (CMU, LBL) IJP
	79	PR D20 2839 PDAT 12-1 Toronto Conf. 3	R.E. Cutkosky <i>et al.</i> G. Hohler <i>et al.</i> R. Koch	(CMU, LBL) IJP (KARLT) IJP (KARLT) IJP

¹ Fit to the amplitudes of HOEHLER 79.

 $^{^2}$ CUTKOSKY 80 finds a lower mass D_{13} resonance, as well as one in this region. Both are listed here.