$a_4(2040)$

$I^G(J^{PC}) = 1^-(4^{++})$

OMITTED FROM SUMMARY TABLE
Needs confirmation.

$a_4(2040)$ MASS

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
2037±26 OUR AVERAGE					
2040±30	[1] CLELAND	82B	SPEC	±	50 $\pi p \rightarrow K^0_S K^\pm p$
2030±50	[2] CORDEN	78C	OMEG	0	15 $\pi^- p \rightarrow 3\pi n$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
1903±10	[3] BALDI	78	SPEC	−	10 $\pi^- p \rightarrow p K^0_S K^-$

[1] From an amplitude analysis.
[2] $J^P = 4^+$ is favored, though $J^P = 2^+$ cannot be excluded.
[3] From a fit to the Y^0_8 moment. Limited by phase space.

$a_4(2040)$ WIDTH

VALUE (MeV)	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
427±120 OUR AVERAGE					
380±150	[4] CLELAND	82B	SPEC	±	50 $\pi p \rightarrow K^0_S K^\pm p$
510±200	[5] CORDEN	78C	OMEG	0	15 $\pi^- p \rightarrow 3\pi n$
• • • We do not use the following data for averages, fits, limits, etc. • • •					
166± 43	[6] BALDI	78	SPEC	−	10 $\pi^- p \rightarrow p K^0_S K^-$

[4] From an amplitude analysis.
[5] $J^P = 4^+$ is favored, though $J^P = 2^+$ cannot be excluded.
[6] From a fit to the Y^0_8 moment. Limited by phase space.

$a_4(2040)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$K\overline{K}$	seen
Γ_2	$\pi^+\pi^-\pi^0$	seen

$a_4(2040)$ BRANCHING RATIOS

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

VALUE	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
seen	BALDI	78	SPEC	±	10 $\pi^- p \rightarrow K^0_S K^- p$

$\Gamma(\pi^+\pi^-\pi^0)/\Gamma_{total}$ Γ_2/Γ

VALUE	*DOCUMENT ID*		*TECN*	*CHG*	*COMMENT*
seen	CORDEN	78C	OMEG	0	15 $\pi^- p \rightarrow 3\pi n$

$a_4(2040)$ REFERENCES

CLELAND 82B NP B208 228 +Delfosse, Dorsaz, Gloor (DURH, GEVA, LAUS, PITT)
BALDI 78 PL 74B 413 +Bohringer, Dorsaz, Hungerbuhler+ (GEVA) JP
CORDEN 78C NP B136 77 +Dowell, Garvey+ (BIRM, RHEL, TELA, LOWC) JP

OTHER RELATED PAPERS

DELFOSSE 81 NP B183 349 +Guisan, Martin, Muhlemann, Weill+ (GEVA, LAUS)