$B^*_J(5732)$
or B^{**}

$I(J^P) = ?(?^?)$
$I,\ J,\ P$ need confirmation.

OMITTED FROM SUMMARY TABLE

Signal can be interpreted as stemming from several narrow and broad resonances. Needs confirmation.

$B^*_J(5732)$ MASS

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
5698± 8 OUR AVERAGE	Error includes scale factor of 1.2.				
5710±20		[1] AFFOLDER	01F	CDF	$p\overline{p}$ at 1.8 TeV
5695^{+17}_{-19}		[2] BARATE	98L	ALEP	$e^+e^- \rightarrow Z$
5704± 4±10	1944	[3] BUSKULIC	96D	ALEP	$E^{ee}_{cm}=$ 88–94 GeV
5732± 5±20	2157	ABREU	95B	DLPH	$E^{ee}_{cm}=$ 88–94 GeV
5681±11	1738	AKERS	95E	OPAL	$E^{ee}_{cm}=$ 88–94 GeV

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

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
5713± 2		[4] ACCIARRI	99N	L3	$e^+e^- \rightarrow Z$

[1] AFFOLDER 01F uses the reconstructed B meson through semileptonic decay channels. The fraction of light B mesons that are produced at $L=1$ B^{**} states is measured to be $0.28 \pm 0.06 \pm 0.03$.

[2] BARATE 98L uses fully reconstructed B mesons to search for B^{**} production in the $B\pi^{\pm}$ system. In the framework of heavy quark symmetry (HQS), they also measured the mass of B^*_2 to be 5739^{+8+6}_{-11-4} MeV/c^2 and the relative production rate of B($b \rightarrow B^*_2 \rightarrow B^{(*)}\pi$)/B($b \rightarrow B_{u,d}$) = $(31 \pm 9^{+6}_{-5})\%$.

[3] Using $m_{B\pi} - m_B = 424 \pm 4 \pm 10$ MeV.

[4] ACCIARRI 99N uses inclusive reconstructed B mesons to search for B^{**} production in the $B^{(*)}\pi^{\pm}$ system. In the framework of HQET, they measured the mass of B^*_1 and B^*_2 to be $5670 \pm 10 \pm 13$ MeV and $5768 \pm 5 \pm 6$ with the B($b \rightarrow B^{**}$)= $(32 \pm 3 \pm 6) \times 10^{-2}$. They also reported the evidence for the existence of an excited B-meson state or mixture of states in the region 5.9–6.0 GeV.

$B^*_J(5732)$ WIDTH

VALUE (MeV)	EVTS	DOCUMENT ID		TECN	COMMENT
128±18 OUR AVERAGE					
145±28	2157	ABREU	95B	DLPH	$E^{ee}_{cm}=$ 88–94 GeV
116±24	1738	AKERS	95E	OPAL	$E^{ee}_{cm}=$ 88–94 GeV

$B^*_J(5732)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$B^*\pi + B\pi$	dominant
Γ_2	$B^*\pi(X)$	[a] (85 ± 29) %

[a] X refers to decay modes with or without additional accompanying decay particles.

$B^*_J(5732)$ BRANCHING RATIOS

X refers to decay modes with or without additional accompanying decay particles.

$\Gamma(B^*\pi(X))/\Gamma_{total}$ Γ_2/Γ

VALUE	DOCUMENT ID	TECN	COMMENT
$0.85^{+0.26}_{-0.27}\pm0.12$	ABBIENDI 02E	OPAL	$e^+e^- \to Z$

$B^*_J(5732)$ REFERENCES

ABBIENDI	02E	EPJ C23 437	G. Abbiendi *et al.*	(OPAL Collab.)
AFFOLDER	01F	PR D64 072002	T. Affolder *et al.*	(CDF Collab.)
ACCIARRI	99N	PL B465 323	M. Acciarri *et al.*	(L3 Collab.)
BARATE	98L	PL B425 215	R. Barate *et al.*	(ALEPH Collab.)
BUSKULIC	96D	ZPHY C69 393	D. Buskulic *et al.*	(ALEPH Collab.)
ABREU	95B	PL B345 598	P. Abreu *et al.*	(DELPHI Collab.)
AKERS	95E	ZPHY C66 19	R. Akers *et al.*	(OPAL Collab.)