$\Upsilon(1D)$

$I^G(J^{PC}) = 0^-(2^{--})$

OMITTED FROM SUMMARY TABLE

J needs confirmation.

$\Upsilon(1D)$ MASS

VALUE (MeV)	*EVTS*	*DOCUMENT ID*		*TECN*	*COMMENT*
10161.1±0.6±1.6	38	BONVICINI	04	CLE3	$\Upsilon(3S) \rightarrow \gamma X$

$\Upsilon(1D)$ DECAY MODES

	Mode	Fraction (Γ_i/Γ)
Γ_1	$\gamma\gamma\,\Upsilon(1S)$	seen
Γ_2	$\gamma\chi_{bJ}(1P)$	
Γ_3	$\eta\,\Upsilon(1S)$	
Γ_4	$\pi^+\pi^-\,\Upsilon(1S)$	

$\Upsilon(2S)$ BRANCHING RATIOS

$\Gamma(\eta\,\Upsilon(1S))/\Gamma(\gamma\gamma\,\Upsilon(1S))$ Γ_3/Γ_1

VALUE	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
<0.25	90	BONVICINI	04	CLE3	$\Upsilon(3S) \rightarrow \gamma X$

$\Gamma(\pi^+\pi^-\,\Upsilon(1S))/\Gamma(\gamma\gamma\,\Upsilon(1S))$ Γ_4/Γ_1

VALUE	*CL%*	*DOCUMENT ID*		*TECN*	*COMMENT*
<1.2	90	[1] BONVICINI	04	CLE3	$\Upsilon(3S) \rightarrow \gamma X$

[1] Assuming $J = 2$.

$\Upsilon(1D)$ REFERENCES

BONVICINI 04 PR D70 032001 G. Bonvicini *et al.* (CLEO Collab.)