Reference     =     TOMARADZE 15; PR D91 011102
Verifier code     =     SETH

Normally we send all verifications for one experiment to one person, usually the spokesperson or data-analysis co-ordinator, who then distributes them to the appropriate people. Please tell us if we should send the verifications for your experiment to someone else.

*PLEASE READ NOW*

*PLEASE REPLY WITHIN ONE WEEK*

Kamal K Seth

EMAIL: kseth@northwestern.edu

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July 21, 2016

Dear Colleague,

(1) Please check the results of your experiment carefully. They are marked.

(2) Please reply within one week.

(3) Please reply even if everything is correct.

(4) IMPORTANT!! Please tell WHICH papers you are verifying. We have lots of requests out.

(5) Feel free to make comments on our treatment of any of the results (not just yours) you see.

Thank you for helping us make the Review accurate and useful.

Sincerely,

Simon Eidelman
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Prospekt Lavrent'eva 11
RU-630090 Novosibirsk
Russian Federation

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# CHARMED MESONS
## $(C = \pm 1)$

$D^+ = c\overline{d}$, $D^0 = c\overline{u}$, $\overline{D}^0 = \overline{c}u$, $D^- = \overline{c}d$,   similarly for $D^*$'s

NODE=M061

## $D^*(2007)^0$

$I(J^P) = \frac{1}{2}(1^-)$
$I$, $J$, $P$ need confirmation.

$J$ consistent with 1, value 0 ruled out (NGUYEN 77).

NODE=M061

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### $m_{D^*(2007)^0} - m_{D^0}$

NODE=M061DM

The fit includes $D^\pm$, $D^0$, $D_s^\pm$, $D^{*\pm}$, $D^{*0}$, $D_s^{*\pm}$, $D_1(2420)^0$, $D_2^*(2460)^0$,
and $D_{s1}(2536)^\pm$ mass and mass difference measurements.

NODE=M061DM

| VALUE (MeV) | EVTS | DOCUMENT ID | TECN | COMMENT |
|---|---|---|---|---|
| **142.016±0.030 OUR AVERAGE** | | Error includes scale factor of 1.5. | | |
| 142.007±0.015±0.014 | 10K | [2] TOMARADZE 15 | CLEO | $e^+e^- \to$ hadrons |
| 142.2 ±0.3 ±0.2 | 145 | ALBRECHT 95F | ARG | $e^+e^- \to$ hadrons |
| 142.12 ±0.05 ±0.05 | 1176 | BORTOLETTO 92B | CLE2 | $e^+e^- \to$ hadrons |

NODE=M061DM

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

| | | | | |
|---|---|---|---|---|
| 142.2 ±2.0 | | SADROZINSKI 80 | CBAL | $D^{*0} \to D^0\pi^0$ |
| 142.7 ±1.7 | | [3] GOLDHABER 77 | MRK1 | $e^+e^-$ |

[2] Obtained by analyzing CLEO-c data but not authored by the CLEO Collaboration . This value comes from the average of the results for two decay modes, $D^0 \to K^-\pi^+$ and $D^0 \to K^-\pi^+\pi^-\pi^+$.

NODE=M061DM;LINKAGE=A

[3] From simultaneous fit to $D^*(2010)^+$, $D^*(2007)^0$, $D^+$, and $D^0$.

NODE=M061DM;LINKAGE=G

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### $D^*(2007)^0$ REFERENCES

NODE=M061

| | | | | | |
|---|---|---|---|---|---|
| TOMARADZE | 15 | PR D91 011102 | A. Tomaradze et al. | (NWES) | REFID=57142 |
| ALBRECHT | 95F | ZPHY C66 63 | H. Albrecht et al. | (ARGUS Collab.) | REFID=44374 |
| BORTOLETTO | 92B | PRL 69 2046 | D. Bortoletto et al. | (CLEO Collab.) | REFID=43116 |
| SADROZINSKI | 80 | Madison Conf. 681 | H.F.W. Sadrozinski et al. | (PRIN, CIT+) | REFID=22877 |
| GOLDHABER | 77 | PL 69B 503 | G. Goldhaber et al. | (Mark I Collab.) | REFID=11434 |
| NGUYEN | 77 | PRL 39 262 | H.K. Nguyen et al. | (LBL, SLAC) J | REFID=11543 |