



**KILC12, 23-27 April 2012, Daegu, Korea
Joint ACFA Physics / Detector Workshop and GDE meeting
on Linear Collider**

Corrections 10. July 2012

ILC Cavity Database Update

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On behalf of the ILC database team:

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And many thanks to the DESY ILC DB Support Group:

D.Gall, V. Gubarev, S. Yasar



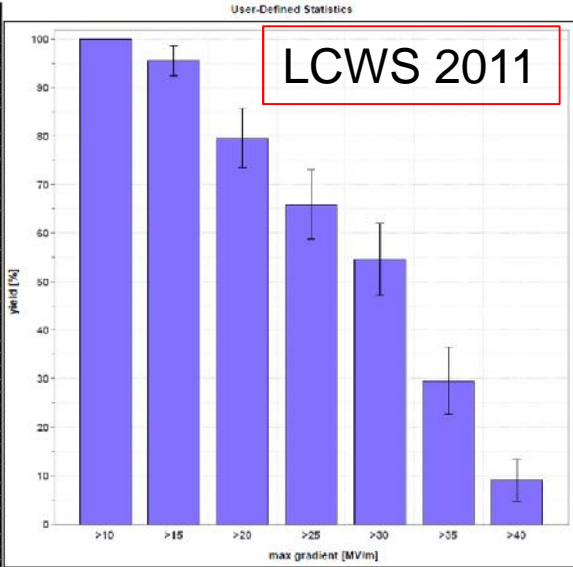
Updates

- ❑ Previous update was LCWS11 (Granada) September 2011
 - ❑ 44 cavities for 1st pass, 33 cavities for 2nd pass
- ❑ Updates which affect standard yield plots
 - ❑ KEK (Kirk)
 - ❑ MHI018: test#1 $E_{acc}=31.0$ MV/m added
 - ❑ MHI019: test#1 $E_{acc}=26.3$ MV/m added
 - ❑ MHI020: test#1 $E_{acc}= 9.0$ MV/m added
 - ❑ MHI021: test#1 $E_{acc}=38.9$ MV/m added
 - ❑ DESY (Sebastian)
 - ❑ Z162: test#2 $E_{acc}=29.4$ MV/m added
 - ❑ CAV00001: test#1 $E_{acc}=28.4$ MV/m added
test#2 $E_{acc}= 8.7$ MV/m added
 - ❑ CAV00002: test#1 $E_{acc}=37.6$ MV/m added
 - ❑ CAV00004: test#1 $E_{acc}=38.1$ MV/m added
- ❑ 51 cavities for 1st pass, 35 cavities for 2nd pass

8.7 MV/m  28.7 MV/m

Yield Plot Updates: 1st Pass detail

| No. | Cavity | Test Date | Max. Eacc [MV/m] |
|-----|-----------|-----------|------------------|
| 1 | TB9ACC013 | 01 Dec 08 | 41.80 |
| 2 | TB9ACC014 | 09 Feb 09 | 41.50 |
| 3 | TB9AES008 | 26 Aug 09 | 41.10 |
| 4 | TB9AES007 | 16 Mar 10 | 41.00 |
| 5 | AC122 | 26 Aug 08 | 38.88 |
| 6 | AC115 | 11 Dec 07 | 38.60 |
| 7 | MH017 | 06 Feb 11 | 38.40 |
| 8 | TB9RI019 | 11 Jun 10 | 38.00 |
| 9 | TB9AES010 | 06 Nov 09 | 37.70 |
| 10 | MH012 | 11 Nov 10 | 37.50 |
| 11 | TB9ACC011 | 21 Aug 08 | 37.00 |
| 12 | MH015 | 25 Nov 10 | 36.20 |
| 13 | TB9ACC012 | 07 Jul 08 | 35.10 |
| 14 | Z134 | 13 Nov 09 | 34.94 |
| 15 | AC125 | 15 Jul 08 | 34.50 |
| 16 | AC150 | 30 Jan 09 | 34.33 |
| 17 | TB9AES009 | 18 Aug 09 | 33.40 |
| 18 | TB9RI018 | 15 Apr 10 | 33.10 |
| 19 | Z143 | 09 Oct 08 | 32.57 |
| 20 | Z106 | 21 Feb 07 | 31.70 |
| 21 | AC127 | 13 Feb 09 | 31.25 |
| 22 | TB9ACC016 | 14 Dec 09 | 31.20 |
| 23 | Z162 | 24 Mar 11 | 31.01 |
| 24 | TB9RI027 | 09 Sep 10 | 31.00 |
| 25 | ACCEL7 | 05 Sep 06 | 29.00 |
| 26 | AC149 | 28 Jan 09 | 26.51 |
| 27 | AC146 | 06 May 10 | 26.13 |
| 28 | AC124 | 05 Feb 09 | 26.01 |
| 29 | Z137 | 24 Feb 09 | 25.23 |
| 30 | Z139 | 12 Sep 08 | 24.93 |
| 31 | MH015 | 03 Feb 11 | 22.50 |
| 32 | TB9RI028 | 01 Oct 10 | 22.00 |
| 33 | MH016 | 19 May 11 | 20.77 |
| 34 | Z142 | 01 Jul 09 | 20.58 |
| 35 | TB9AES005 | 27 Mar 09 | 20.50 |
| 36 | ACCEL6 | 12 Dec 06 | 19.00 |
| 37 | Z141 | 16 Apr 08 | 18.29 |
| 38 | TB9ACC015 | 02 Jul 08 | 18.00 |
| 39 | Z130 | 01 Sep 08 | 17.30 |
| 40 | Z131 | 20 Aug 08 | 17.17 |
| 41 | Z132 | 19 Aug 08 | 16.83 |
| 42 | AC126 | 05 Sep 08 | 16.37 |
| 43 | MH014 | 20 Jan 11 | 15.00 |
| 44 | TB9AES006 | 30 Apr 09 | 14.10 |
| 45 | MH020 | 15 Mar 12 | 9.00 |



1st-pass cavity yield at >25 MV/m was (66 +/- 7) %

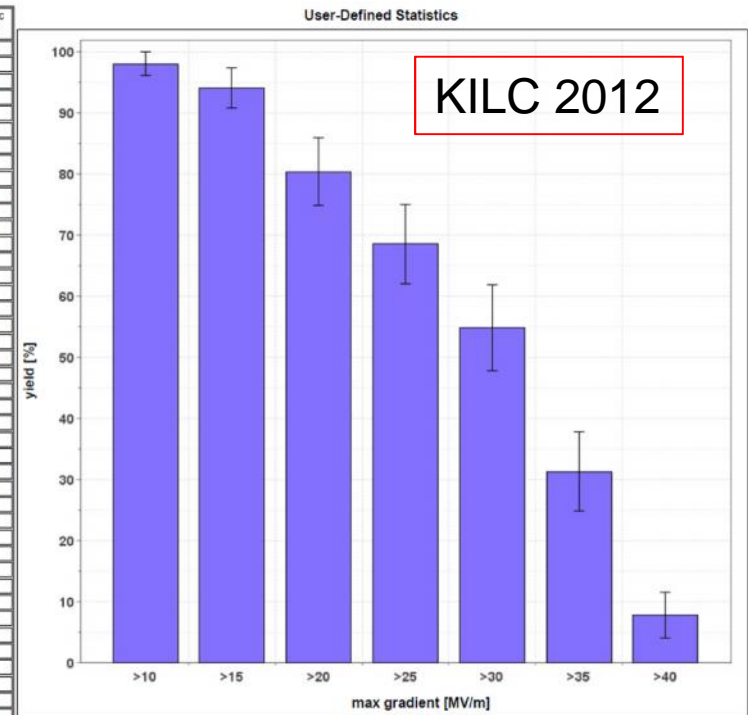
now (69 +/- 7) %

>35 MV/m was (30 +/- 7) %

now (31 +/- 7) %

>28 MV/m is (58.8 +/- 6.9) %

| No. | Cavity | Test Date | Max. Eacc [MV/m] |
|-----|-----------|-----------|------------------|
| 1 | TB9ACC013 | 01 Dec 08 | 41.80 |
| 2 | TB9ACC014 | 09 Feb 09 | 41.50 |
| 3 | TB9AES008 | 26 Aug 09 | 41.10 |
| 4 | TB9AES007 | 16 Mar 10 | 41.00 |
| 5 | MH021 | 12 Apr 12 | 38.90 |
| 6 | AC122 | 26 Aug 08 | 38.88 |
| 7 | AC115 | 11 Dec 07 | 38.60 |
| 8 | MH017 | 06 Feb 11 | 38.40 |
| 9 | CAV00004 | 06 Mar 12 | 38.09 |
| 10 | TB9RI019 | 11 Jun 10 | 38.00 |
| 11 | TB9AES010 | 06 Nov 09 | 37.70 |
| 12 | CAV00002 | 09 Mar 12 | 37.58 |
| 13 | MH012 | 11 Nov 10 | 37.50 |
| 14 | TB9ACC011 | 21 Aug 08 | 37.00 |
| 15 | MH013 | 25 Nov 10 | 36.20 |
| 16 | TB9ACC012 | 07 Jul 08 | 35.10 |
| 17 | Z134 | 13 Nov 09 | 34.94 |
| 18 | AC125 | 15 Jul 08 | 34.50 |
| 19 | AC150 | 30 Jan 09 | 34.33 |
| 20 | TB9AES009 | 18 Aug 09 | 33.40 |
| 21 | TB9RI018 | 15 Apr 10 | 33.10 |
| 22 | Z143 | 09 Oct 08 | 32.57 |
| 23 | Z106 | 21 Feb 07 | 31.70 |
| 24 | AC127 | 13 Feb 09 | 31.25 |
| 25 | TB9ACC016 | 14 Dec 09 | 31.20 |
| 26 | Z162 | 24 Mar 11 | 31.01 |
| 27 | MH018 | 16 Feb 12 | 31.00 |
| 28 | TB9RI027 | 09 Sep 10 | 31.00 |
| 29 | ACCEL7 | 05 Sep 06 | 29.00 |
| 30 | CAV00001 | 09 Feb 12 | 28.42 |
| 31 | AC149 | 28 Jan 09 | 26.51 |
| 32 | MH019 | 01 Mar 12 | 26.30 |
| 33 | AC146 | 06 May 10 | 26.13 |
| 34 | AC124 | 05 Feb 09 | 26.01 |
| 35 | Z137 | 24 Feb 09 | 25.23 |
| 36 | Z139 | 12 Sep 08 | 24.93 |
| 37 | MH015 | 03 Feb 11 | 22.50 |
| 38 | TB9RI028 | 01 Oct 10 | 22.00 |
| 39 | MH016 | 19 May 11 | 20.77 |
| 40 | Z142 | 01 Jul 09 | 20.58 |
| 41 | TB9AES005 | 27 Mar 09 | 20.50 |
| 42 | ACCEL6 | 12 Dec 06 | 19.00 |



No change

| No. | Cavity | Test Date | Max. Eacc [MV/m] |
|-----|-----------|-----------|------------------|
| 43 | Z141 | 16 Apr 08 | 18.29 |
| 44 | TB9ACC015 | 02 Jul 08 | 18.00 |
| 45 | Z130 | 01 Sep 08 | 17.30 |
| 46 | Z131 | 20 Aug 08 | 17.17 |
| 47 | Z132 | 19 Aug 08 | 16.83 |
| 48 | AC126 | 05 Sep 08 | 16.37 |
| 49 | MH014 | 20 Jan 11 | 15.00 |
| 50 | TB9AES006 | 30 Apr 09 | 14.10 |
| 51 | MH020 | 15 Mar 12 | 9.00 |

Yield Plot Updates: 2nd Pass Detail

2nd-pass cavity yield at >25 MV/m was (79 +- 7) %

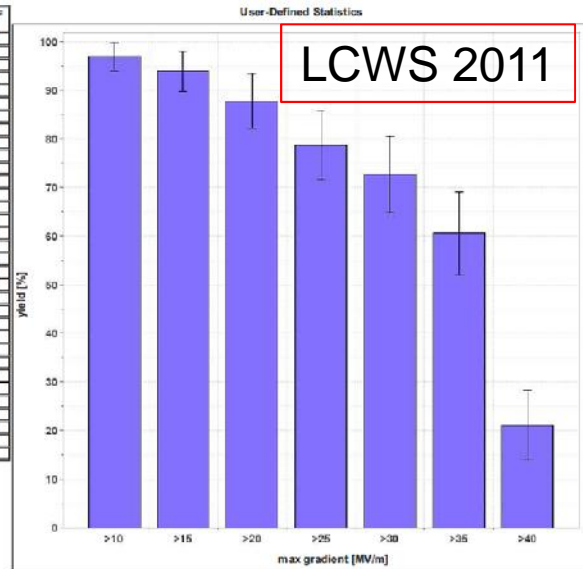
now (80 +- 7) %

>35 MV/m was (61 +- 9) %

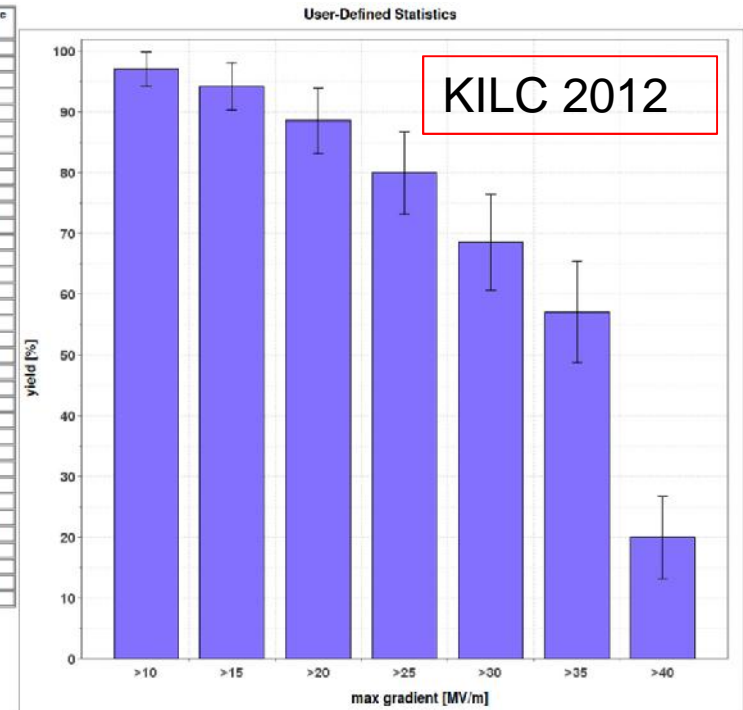
now (57 +- 8) %

>28 MV/m is (77.1 +- 7.1) %

| No. | Cavity | Test Date | Max. Elec [MV/m] |
|-----|-----------|-----------|------------------|
| 1 | TB9ACC013 | 01 Dec 08 | 41.80 |
| 2 | TB9ACC014 | 09 Feb 08 | 41.50 |
| 3 | ACCEL7 | 18 Jan 07 | 41.20 |
| 4 | TB9AES008 | 26 Aug 09 | 41.10 |
| 5 | TB9AES007 | 18 Mar 10 | 41.00 |
| 6 | Z143 | 12 Nov 08 | 41.00 |
| 7 | AC146 | 04 Aug 11 | 40.18 |
| 8 | TB9ACC018 | 11 Feb 10 | 39.30 |
| 9 | TB9R018 | 02 Jun 10 | 39.00 |
| 10 | AC122 | 25 Aug 08 | 38.88 |
| 11 | TB9R028 | 18 Oct 10 | 38.80 |
| 12 | AC115 | 11 Dec 07 | 38.60 |
| 13 | MH017 | 08 Feb 11 | 38.40 |
| 14 | TB9R019 | 11 Jun 10 | 38.00 |
| 15 | TB9AES010 | 06 Nov 09 | 37.70 |
| 16 | MH012 | 11 Nov 10 | 37.50 |
| 17 | TB9ACC011 | 21 Aug 08 | 37.00 |
| 18 | MH013 | 25 Nov 10 | 36.20 |
| 19 | TB9AES009 | 07 Oct 09 | 36.00 |
| 20 | TB9ACC012 | 07 Jul 08 | 35.10 |
| 21 | TB9R027 | 11 Oct 10 | 34.80 |
| 22 | AC150 | 05 May 09 | 33.23 |
| 23 | Z139 | 20 Oct 08 | 32.75 |
| 24 | AC124 | 18 May 09 | 30.93 |
| 25 | ACCEL6 | 23 Jan 07 | 29.00 |
| 26 | AC127 | 11 Jun 09 | 27.85 |
| 27 | TB9AES006 | 11 Sep 09 | 22.20 |
| 28 | Z141 | 14 May 08 | 20.70 |
| 29 | TB9AES005 | 09 Apr 09 | 20.50 |
| 30 | Z131 | 25 Nov 08 | 17.96 |
| 31 | Z130 | 15 Oct 08 | 16.60 |
| 32 | MH014 | 17 Feb 11 | 13.00 |
| 33 | AC126 | 21 Oct 08 | 6.14 |



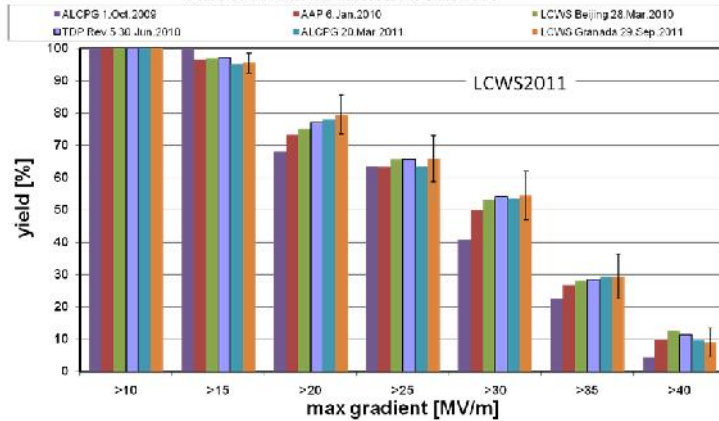
| No. | Cavity | Test Date | Max Elec [MV/m] |
|-----|-----------|-----------|-----------------|
| 1 | TB9ACC013 | 01 Dec 08 | 41.80 |
| 2 | TB9ACC014 | 09 Feb 08 | 41.50 |
| 3 | ACCEL7 | 18 Jan 07 | 41.20 |
| 4 | TB9AES008 | 26 Aug 09 | 41.10 |
| 5 | Z143 | 12 Nov 08 | 41.00 |
| 6 | TB9AES007 | 18 Mar 10 | 41.00 |
| 7 | AC146 | 04 Aug 11 | 40.18 |
| 8 | TB9ACC018 | 11 Feb 10 | 39.30 |
| 9 | TB9R018 | 02 Jun 10 | 39.00 |
| 10 | AC122 | 25 Aug 08 | 38.88 |
| 11 | TB9R028 | 18 Oct 10 | 38.80 |
| 12 | AC115 | 11 Dec 07 | 38.60 |
| 13 | MH017 | 08 Feb 11 | 38.40 |
| 14 | TB9R019 | 11 Jun 10 | 38.00 |
| 15 | TB9AES010 | 06 Nov 09 | 37.70 |
| 16 | MH012 | 11 Nov 10 | 37.50 |
| 17 | TB9ACC011 | 21 Aug 08 | 37.00 |
| 18 | MH013 | 25 Nov 10 | 36.20 |
| 19 | TB9AES009 | 07 Oct 09 | 36.00 |
| 20 | TB9ACC012 | 07 Jul 08 | 35.10 |
| 21 | TB9R027 | 11 Oct 10 | 34.80 |
| 22 | AC150 | 05 May 09 | 33.23 |
| 23 | Z139 | 20 Oct 08 | 32.75 |
| 24 | AC124 | 18 May 09 | 30.93 |
| 25 | Z162 | 14 Nov 11 | 28.37 |
| 26 | ACCEL6 | 23 Jan 07 | 29.00 |
| 27 | CAV0001 | 22 Mar 12 | 28.66 |
| 28 | AC127 | 11 Jun 09 | 27.85 |
| 29 | TB9AES006 | 11 Sep 09 | 22.20 |
| 30 | Z141 | 14 May 08 | 20.70 |
| 31 | TB9AES005 | 09 Apr 09 | 20.50 |
| 32 | Z131 | 25 Nov 08 | 17.96 |
| 33 | Z130 | 15 Oct 08 | 16.60 |
| 34 | MH014 | 17 Feb 11 | 13.00 |
| 35 | AC126 | 21 Oct 08 | 6.14 |



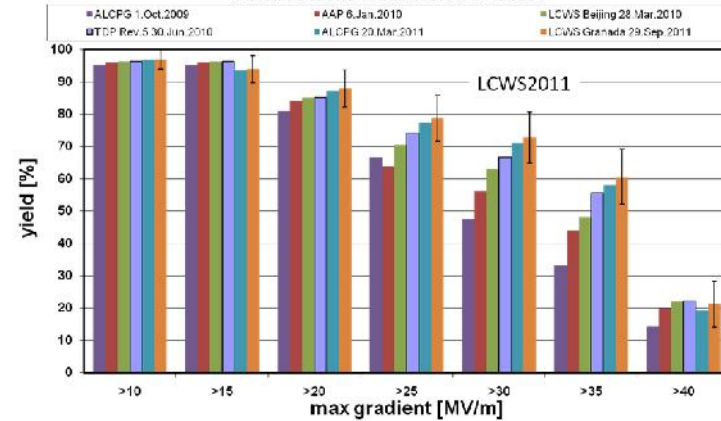
KILC 2012 plot updated
>25 MV/m and >28 MV/m yields updated

Time Progression by Workshop

Electropolished 9-cell cavities
JLab/DESY/KEK (combined) first successful test of
cavities from established vendors

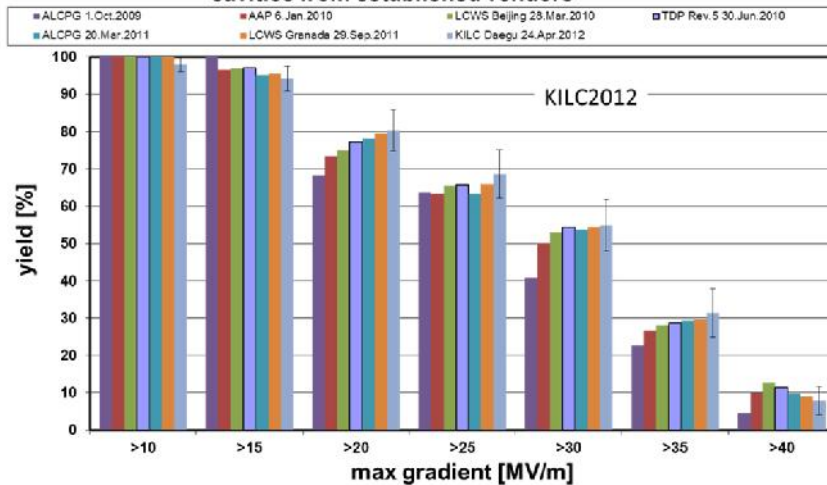


Electropolished 9-cell cavities
JLab/DESY/KEK (combined) up-to-second successful test of
cavities from established vendors

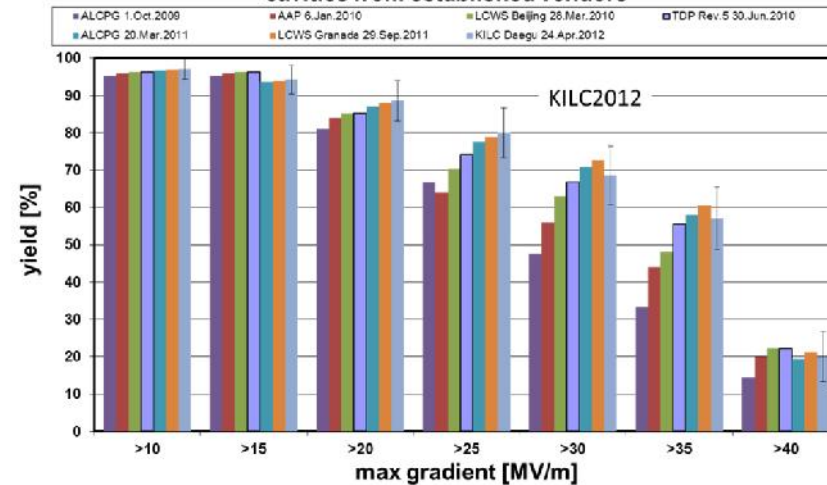


KILC 2012 2nd pass plot updated

Electropolished 9-cell cavities
JLab/DESY/KEK (combined) first successful test of
cavities from established vendors

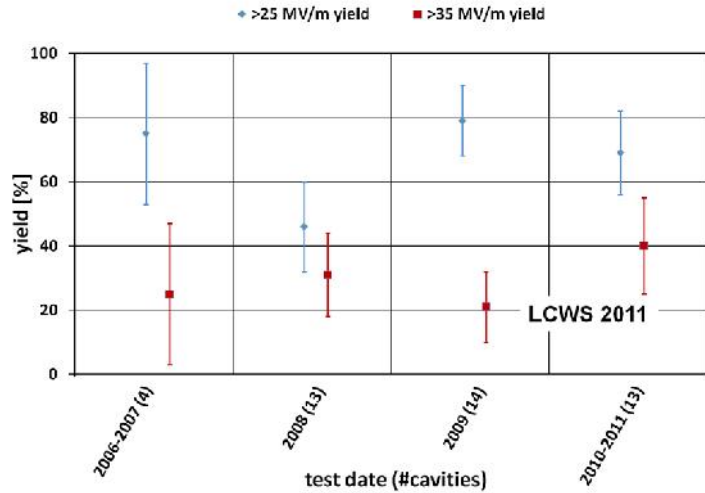


Electropolished 9-cell cavities
JLab/DESY/KEK (combined) up-to-second successful test of
cavities from established vendors

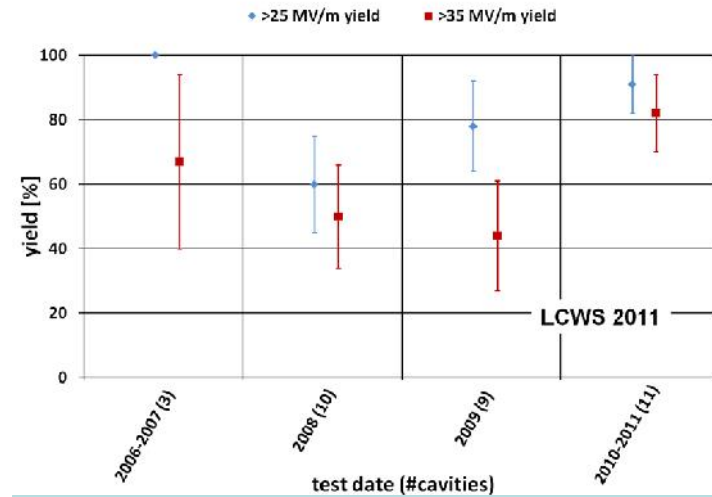


Time Progression by Year

1st pass yield - established vendors, standard process

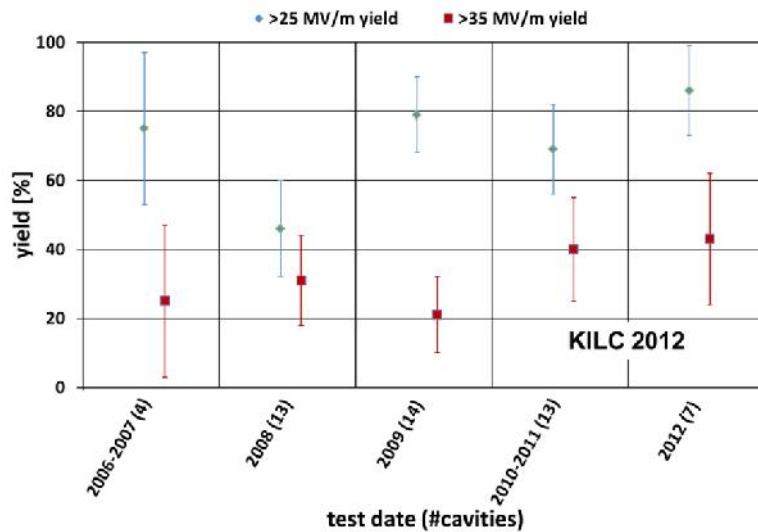


2nd pass yield - established vendors, standard process



KILC 2012 2nd pass plot updated

1st pass yield - established vendors, standard process



2nd pass yield - established vendors, standard process

