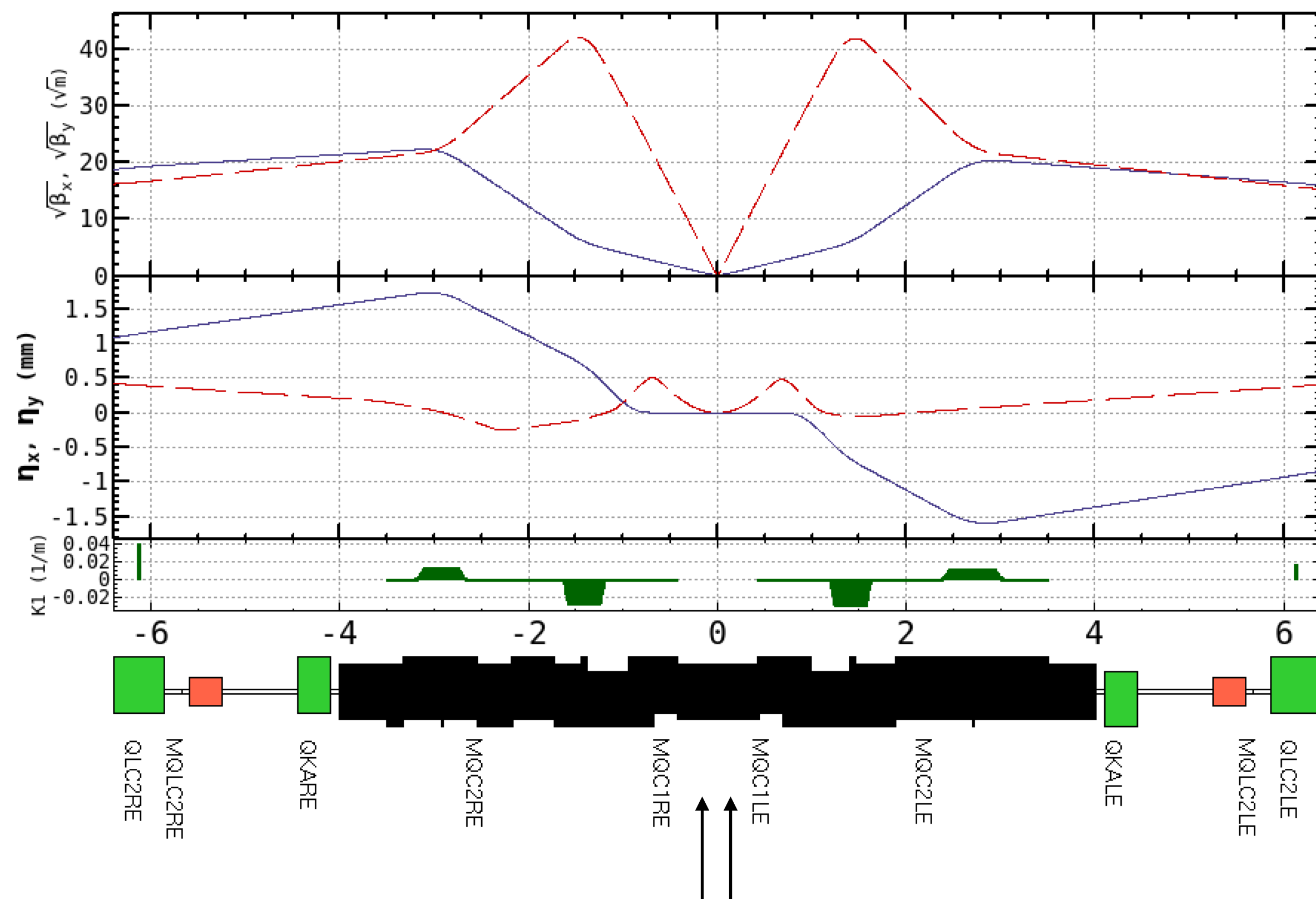
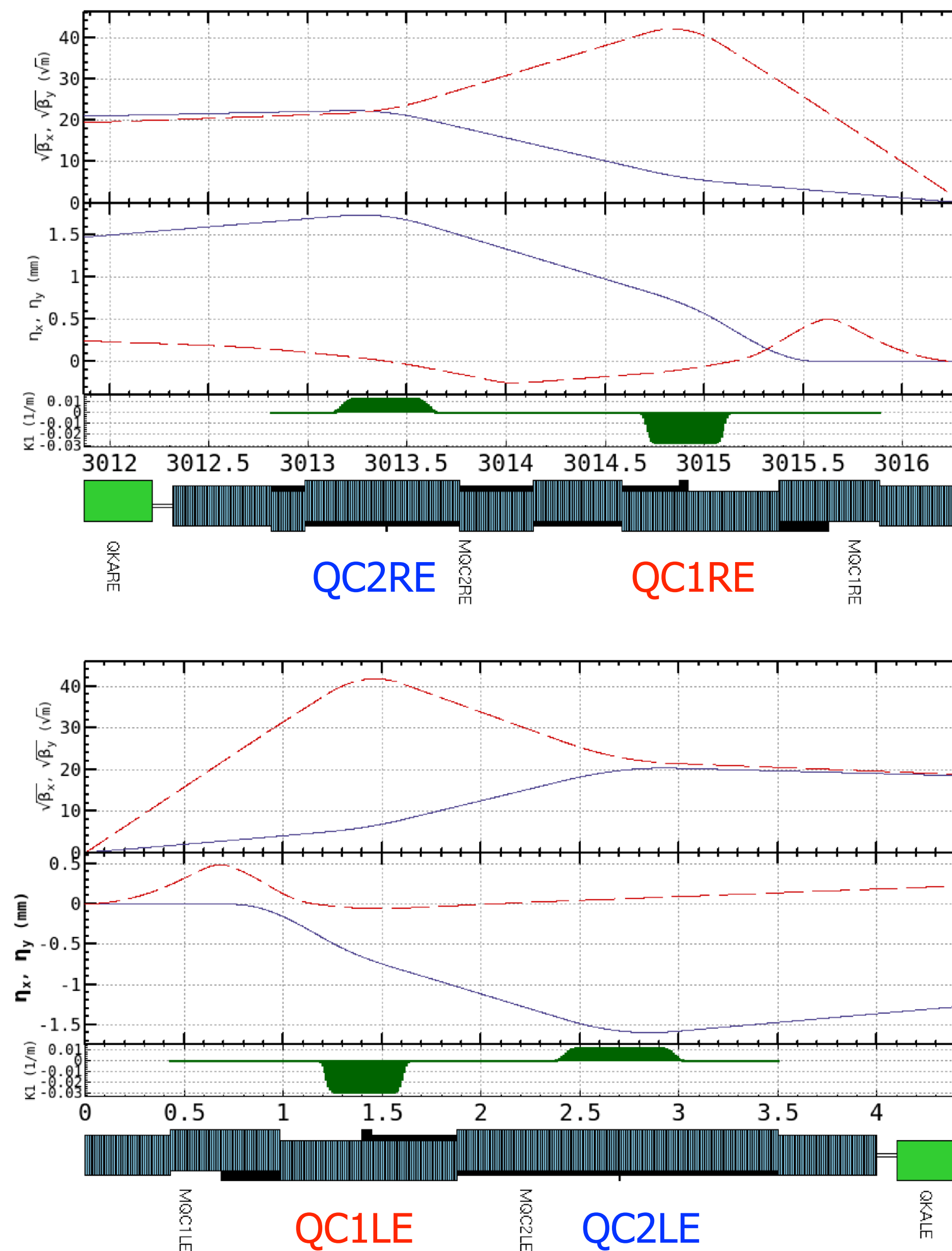


HER

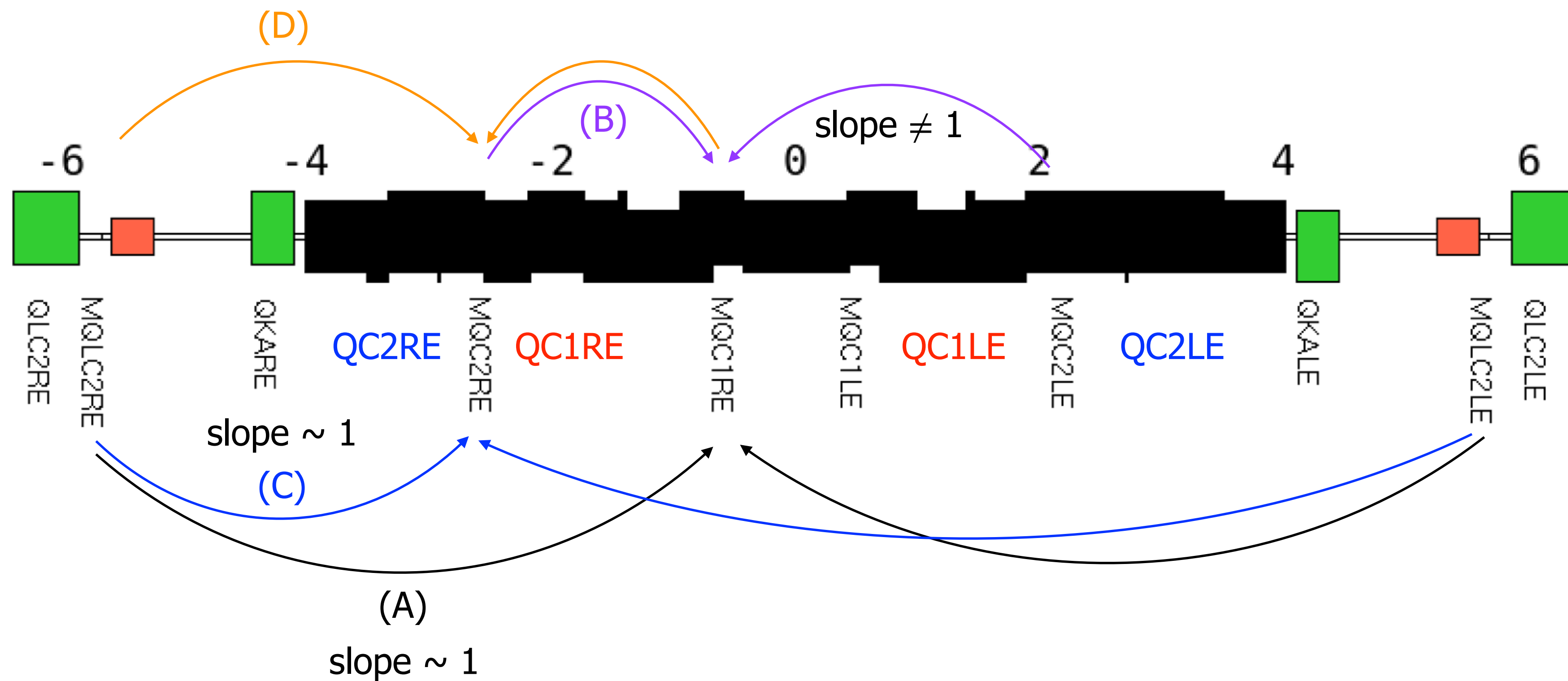


QC1Pからの漏れ磁場
(dipole, quadrupole) がある。



MQC2-MQC1でQC1のK1を決定し、MQLC2-MQC1でQC2のK1を決定する。

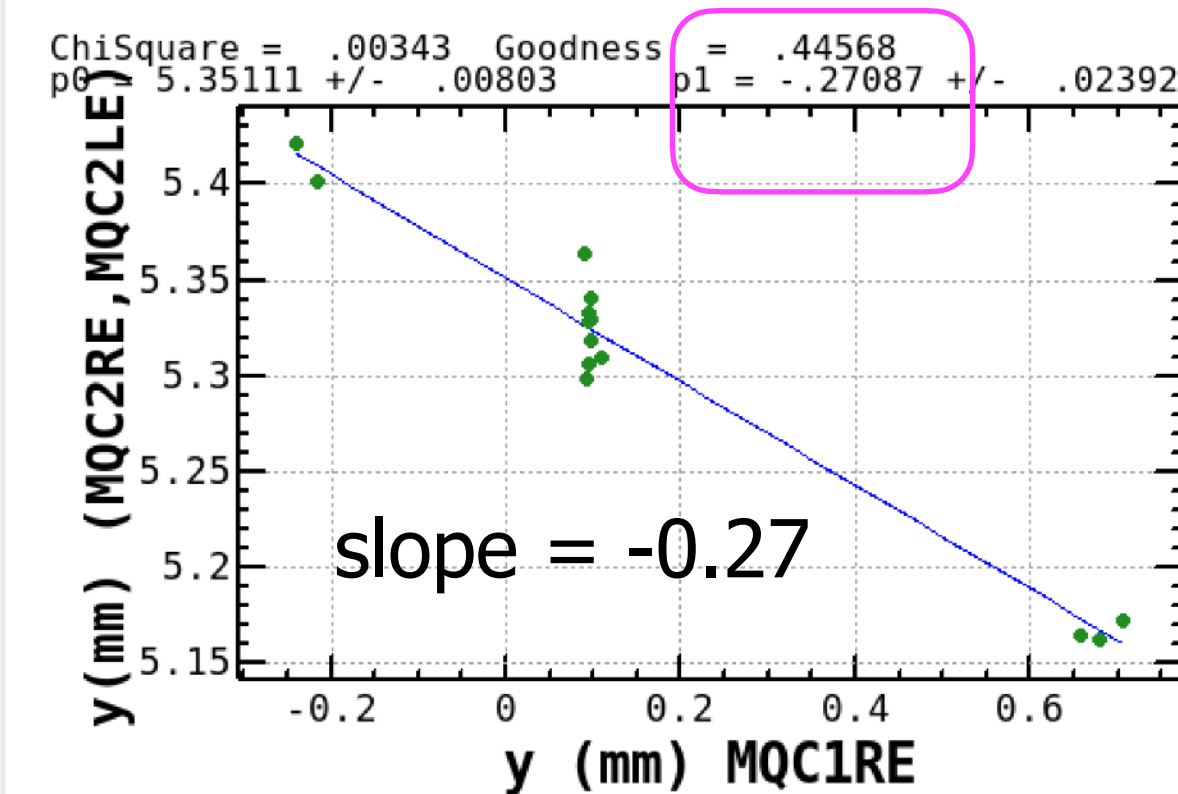
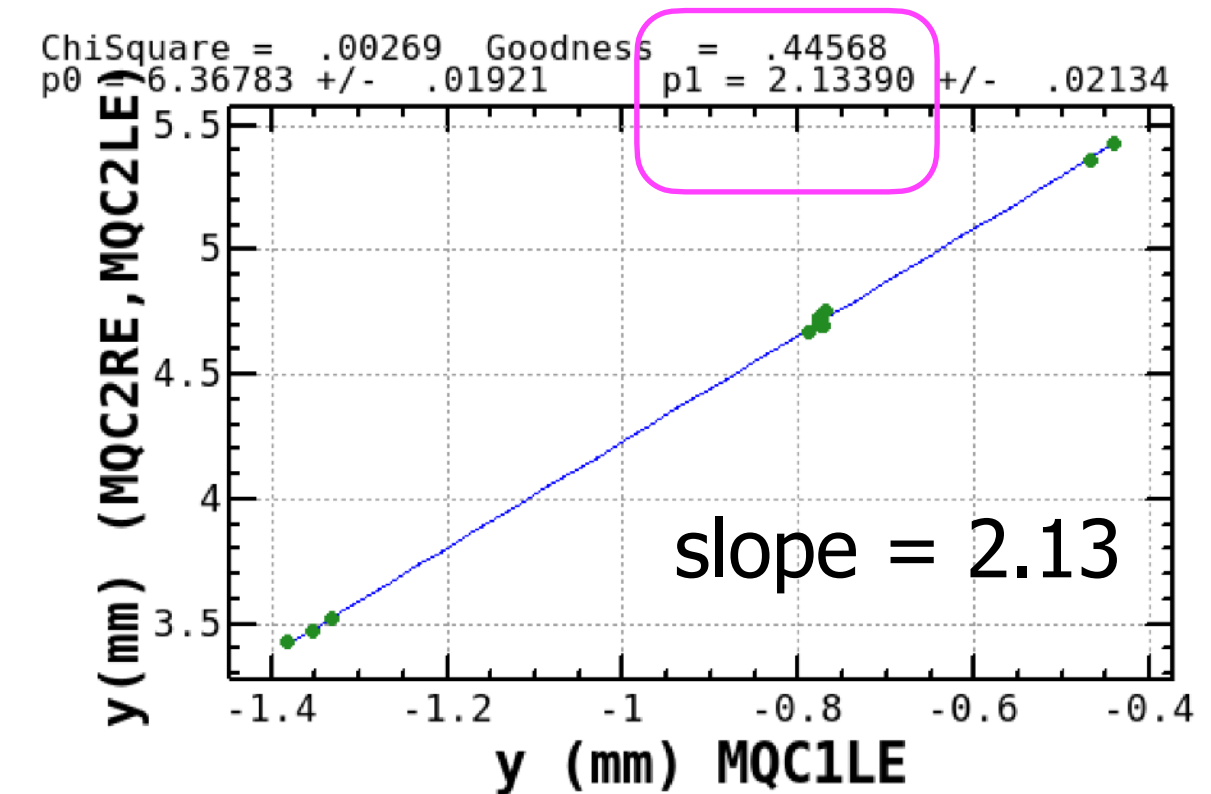
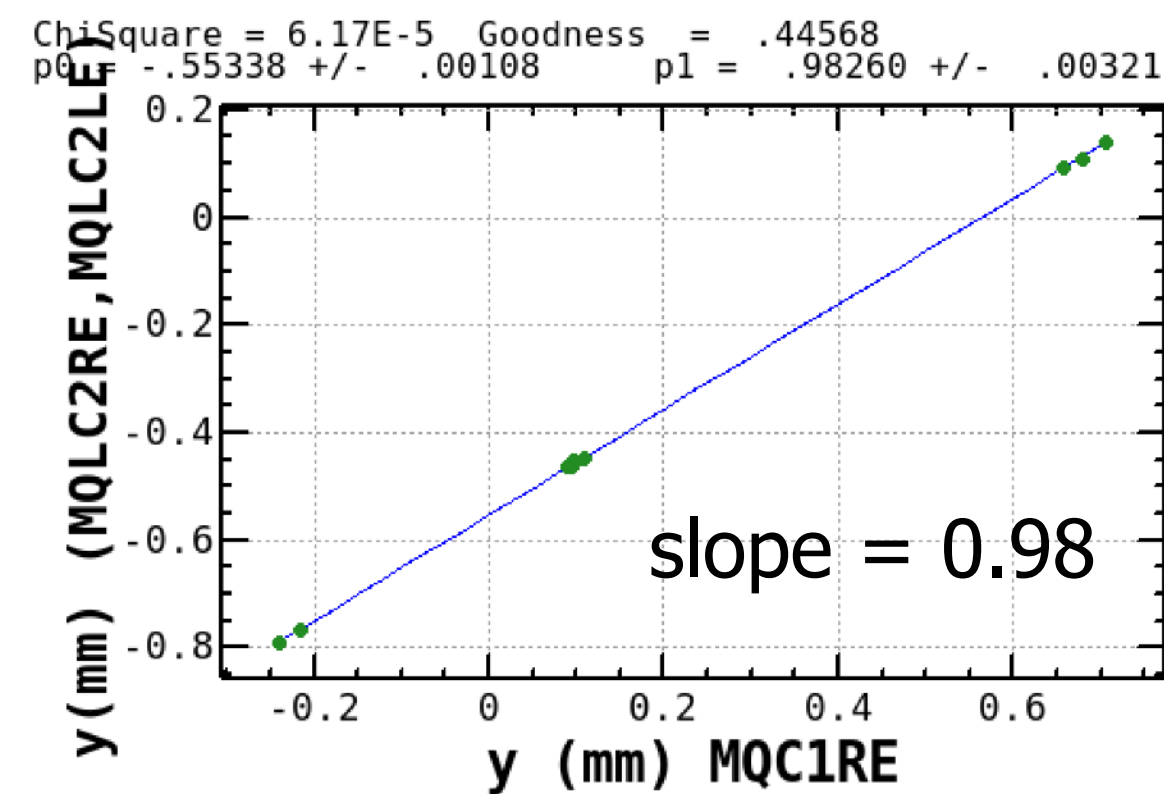
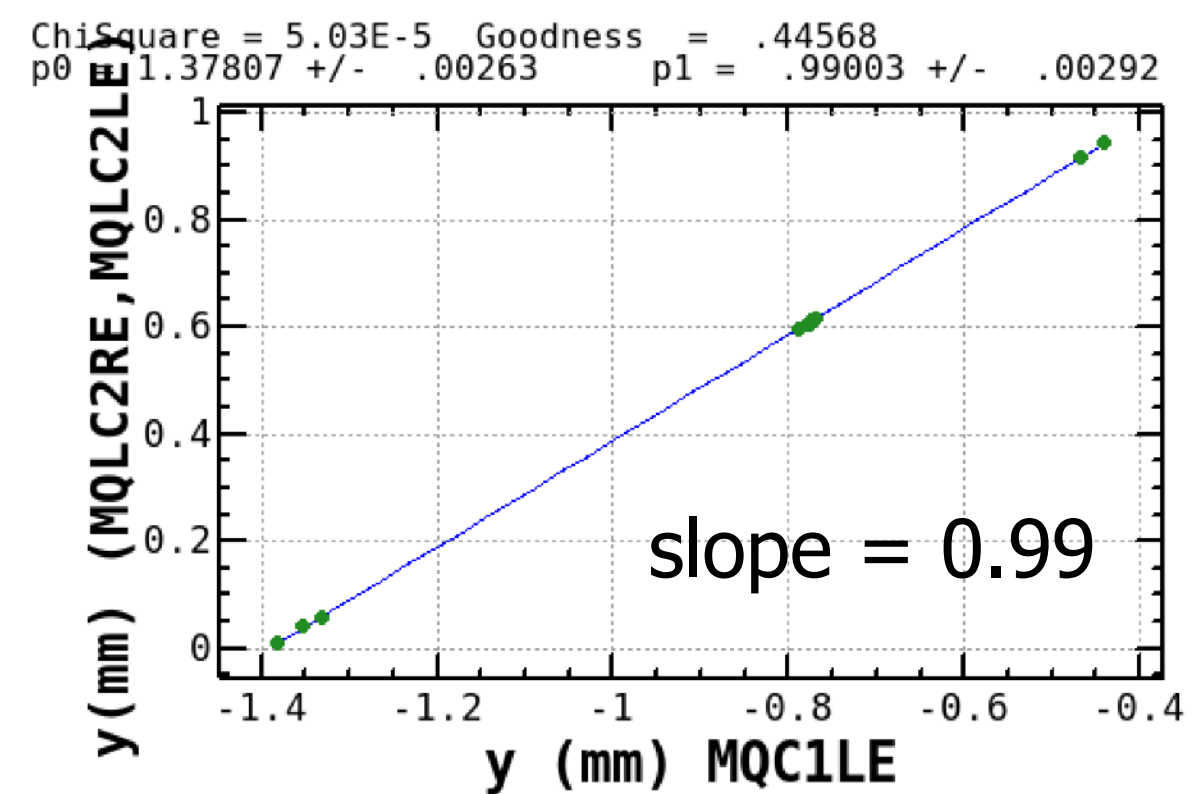
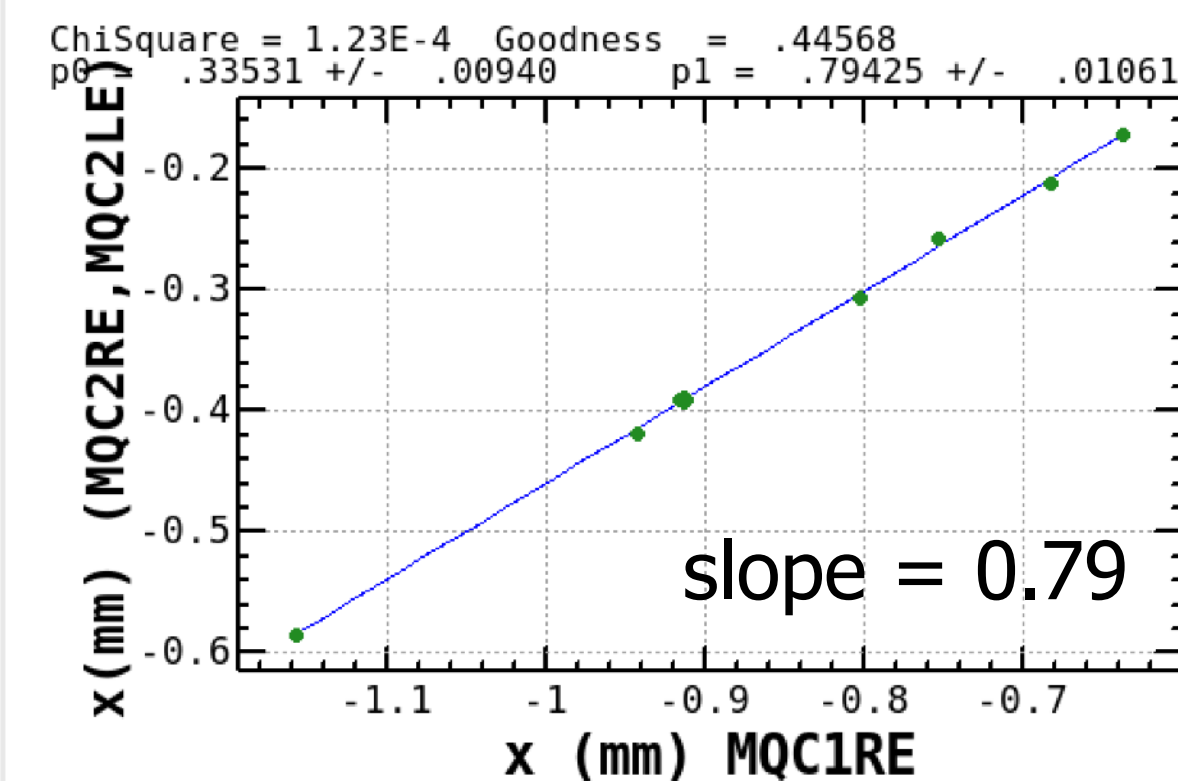
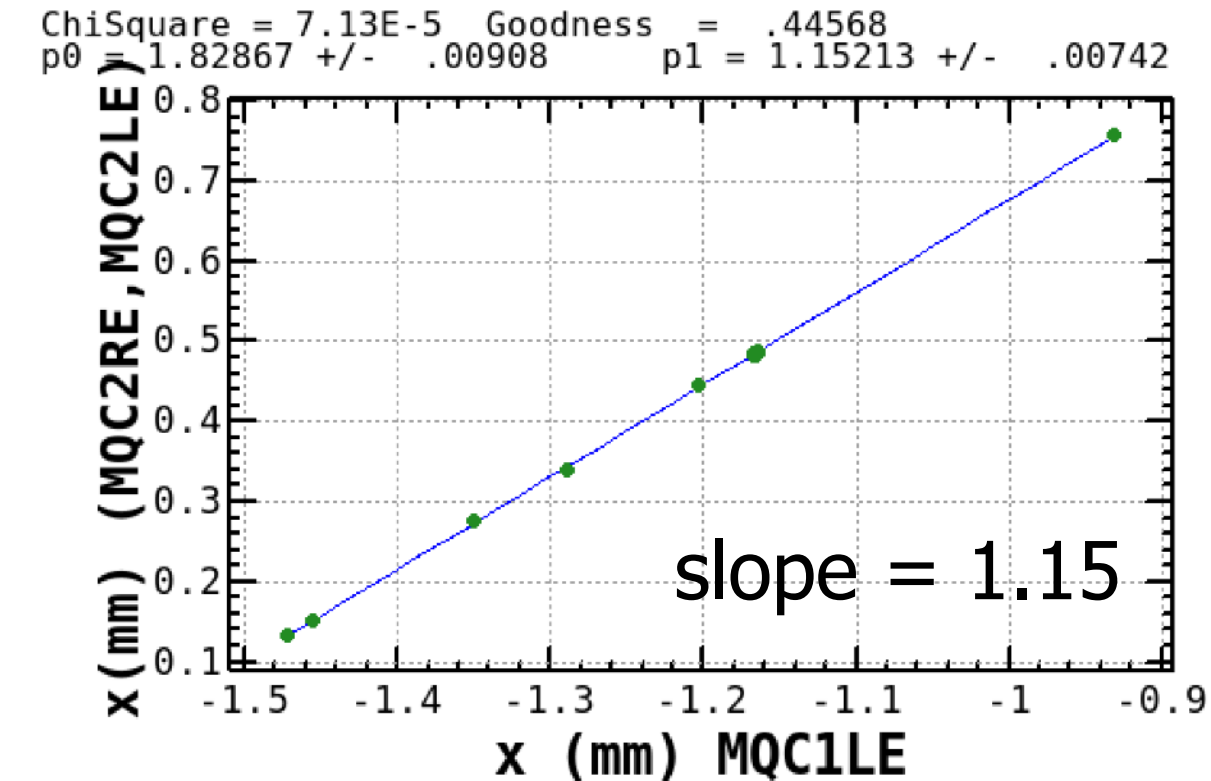
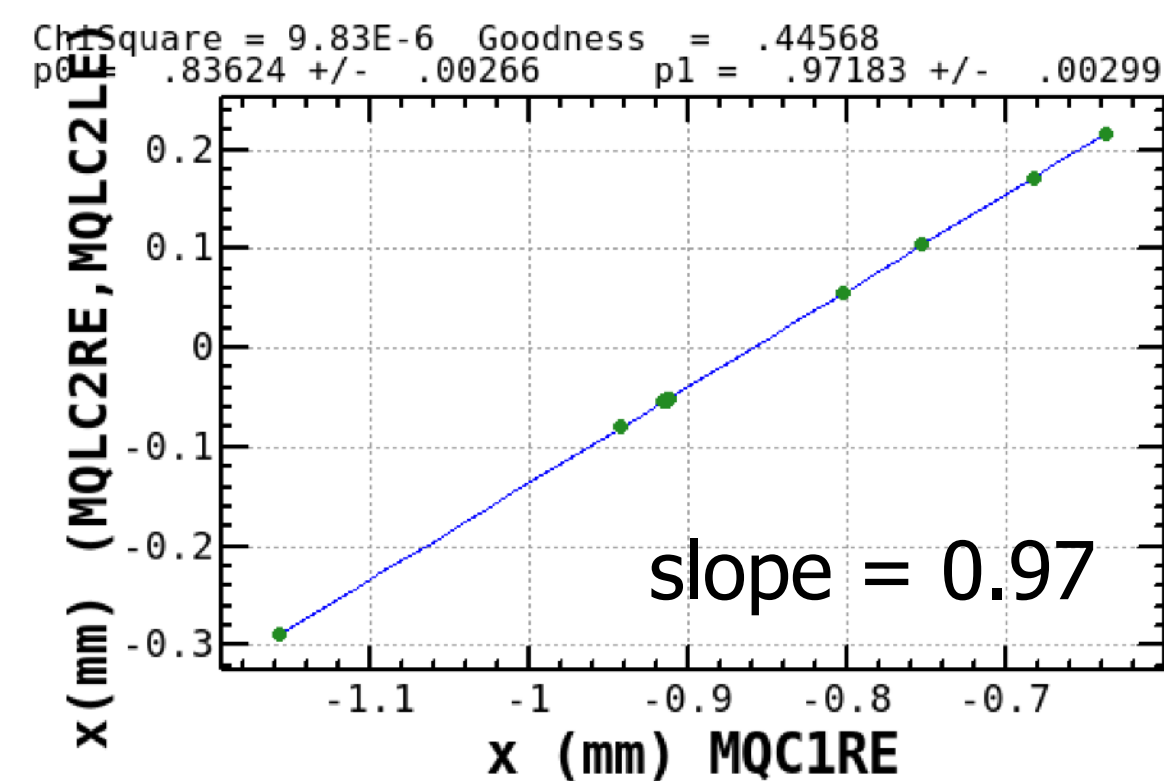
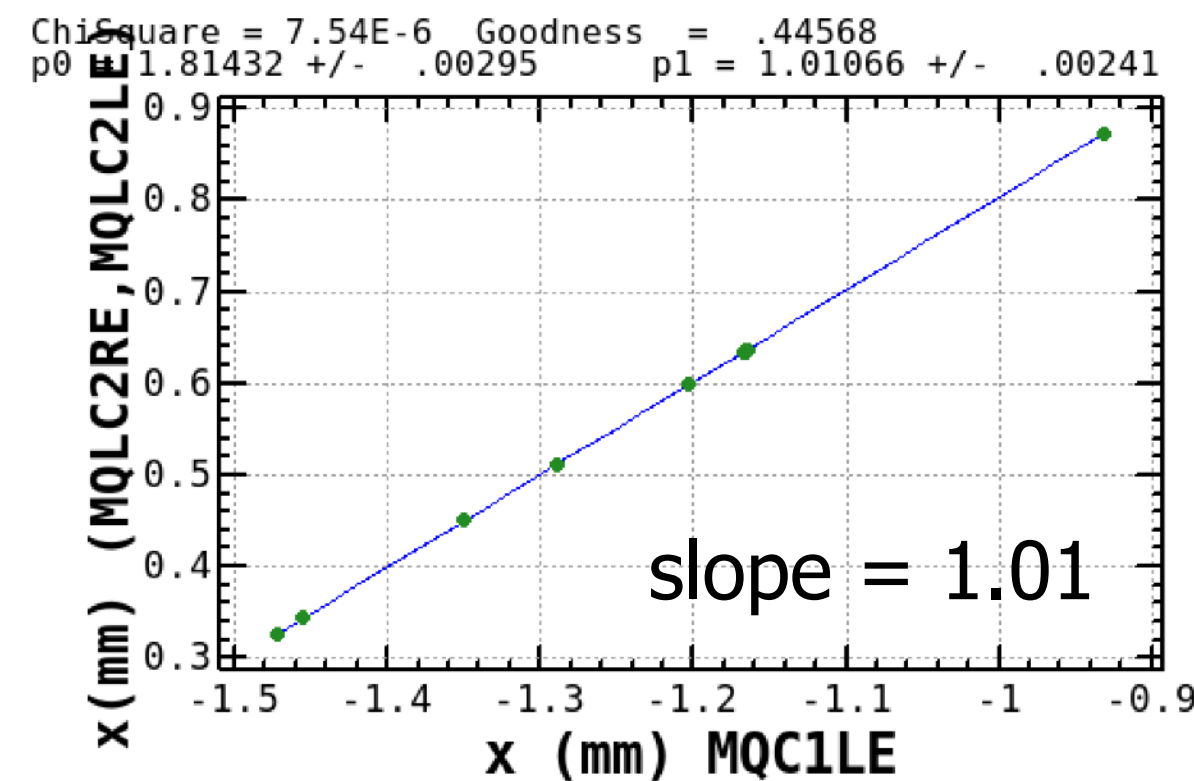
(A), (B), (C) の結果より、QC1はLとRで $\Delta K1$ の符号は逆向きであると推測される。



23:26:44 June 15, 2022

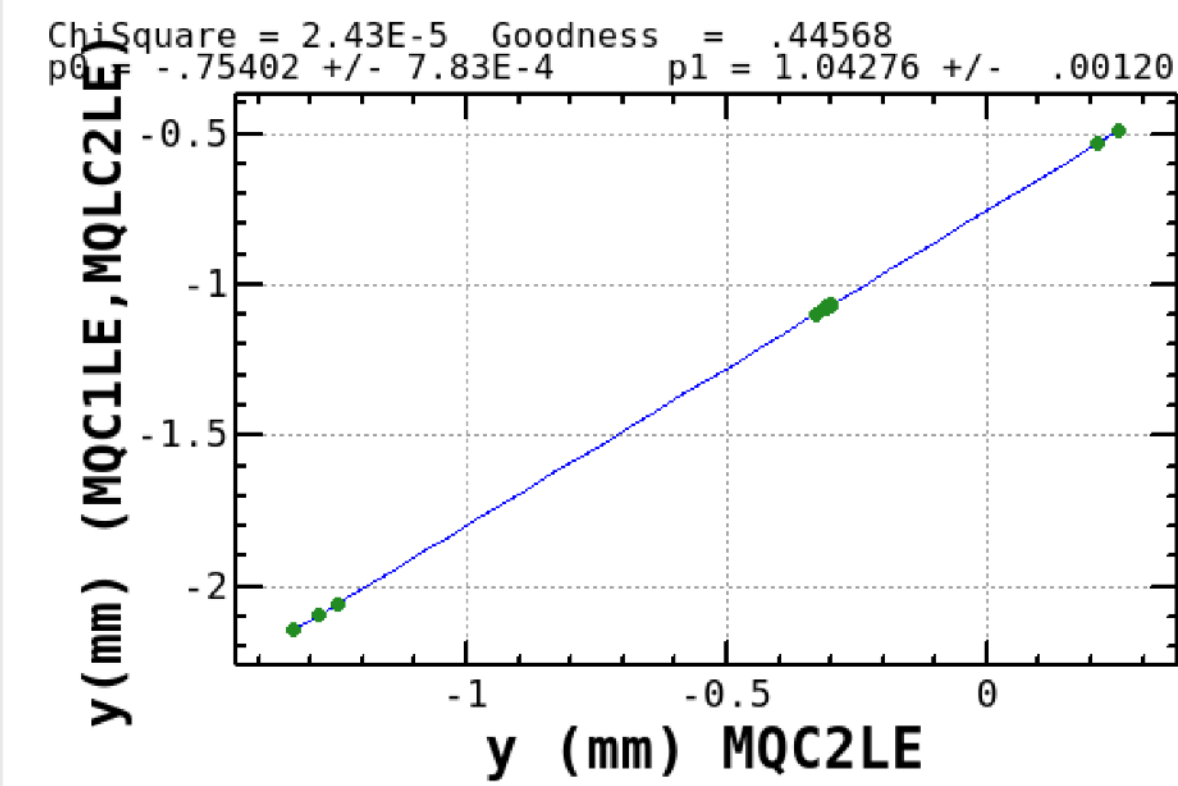
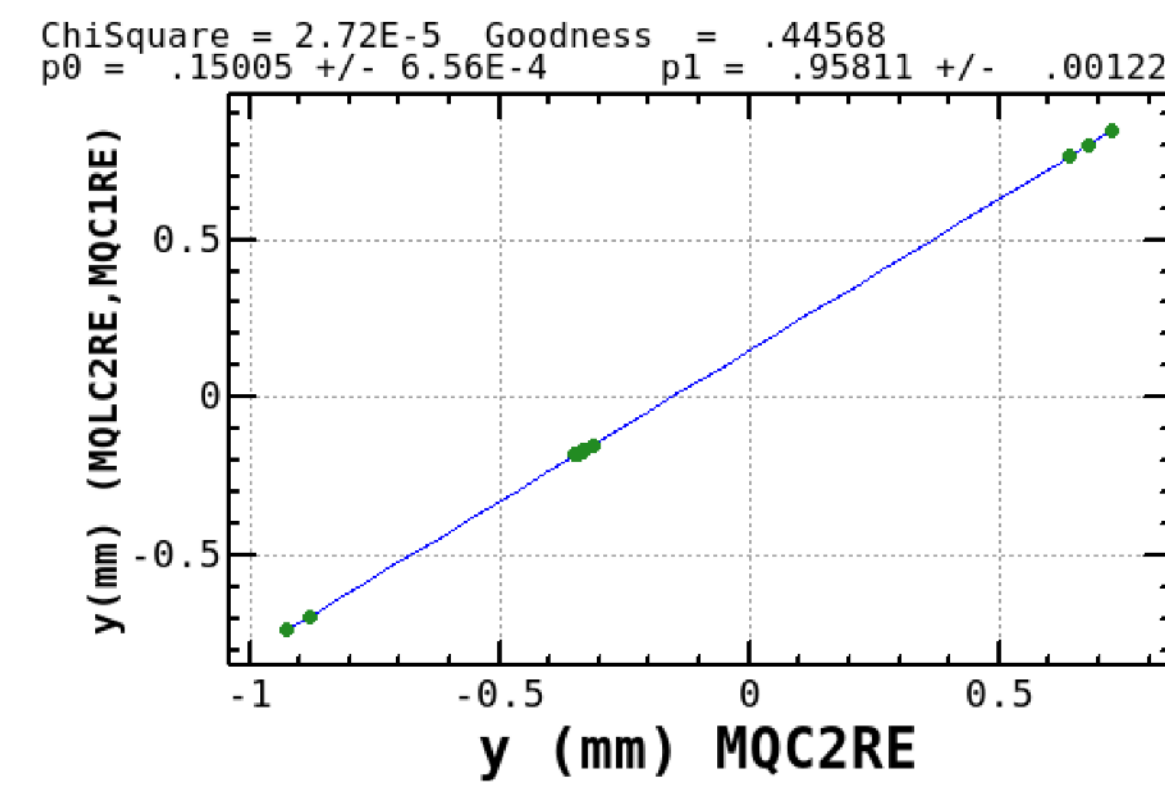
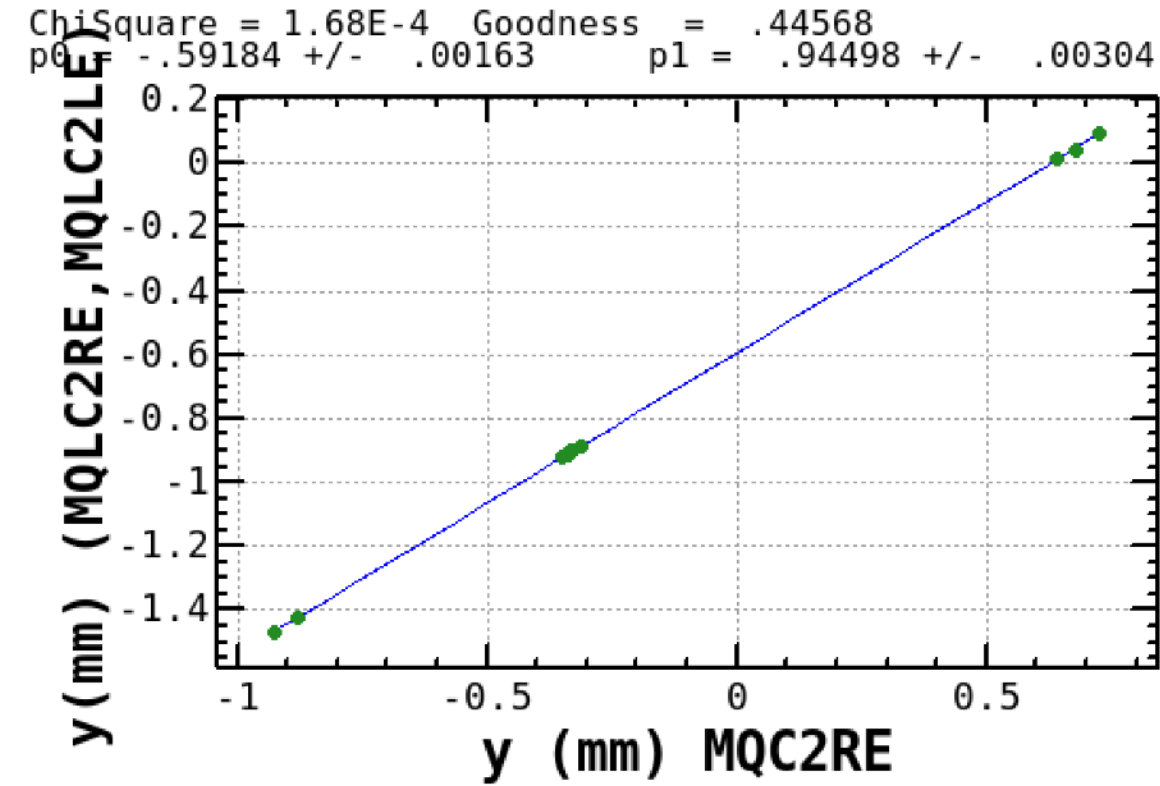
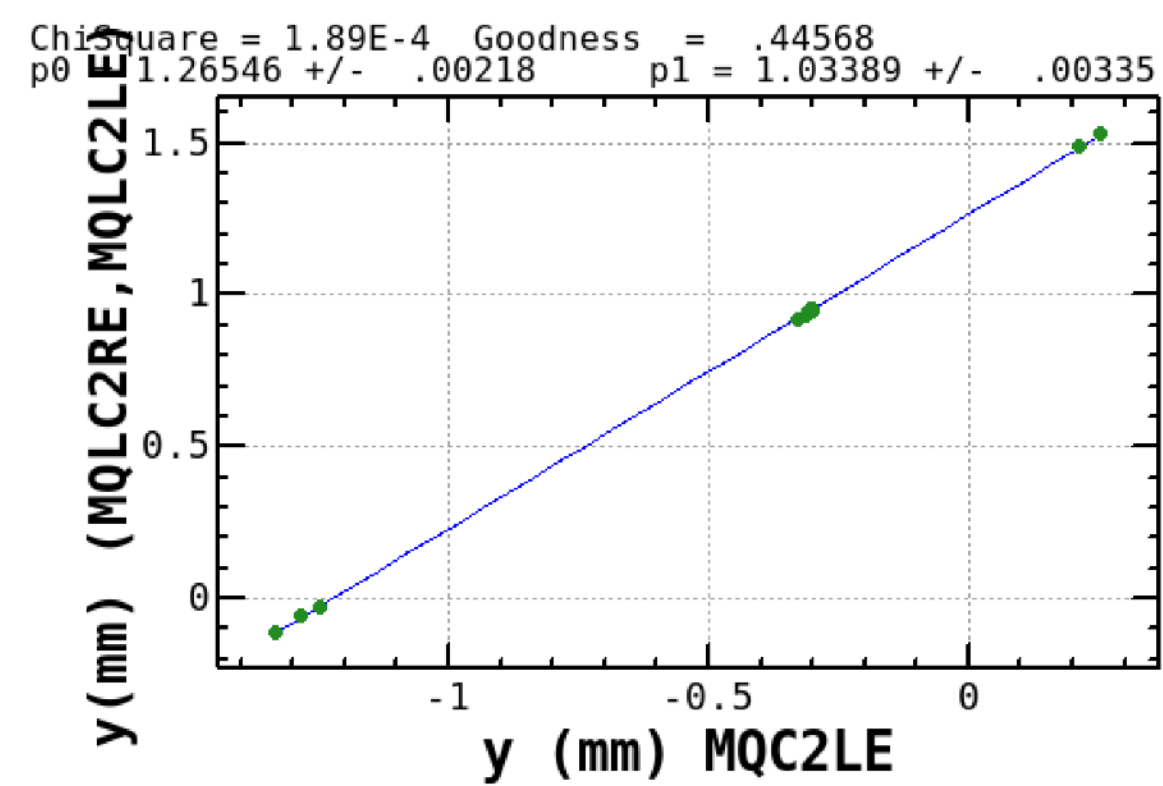
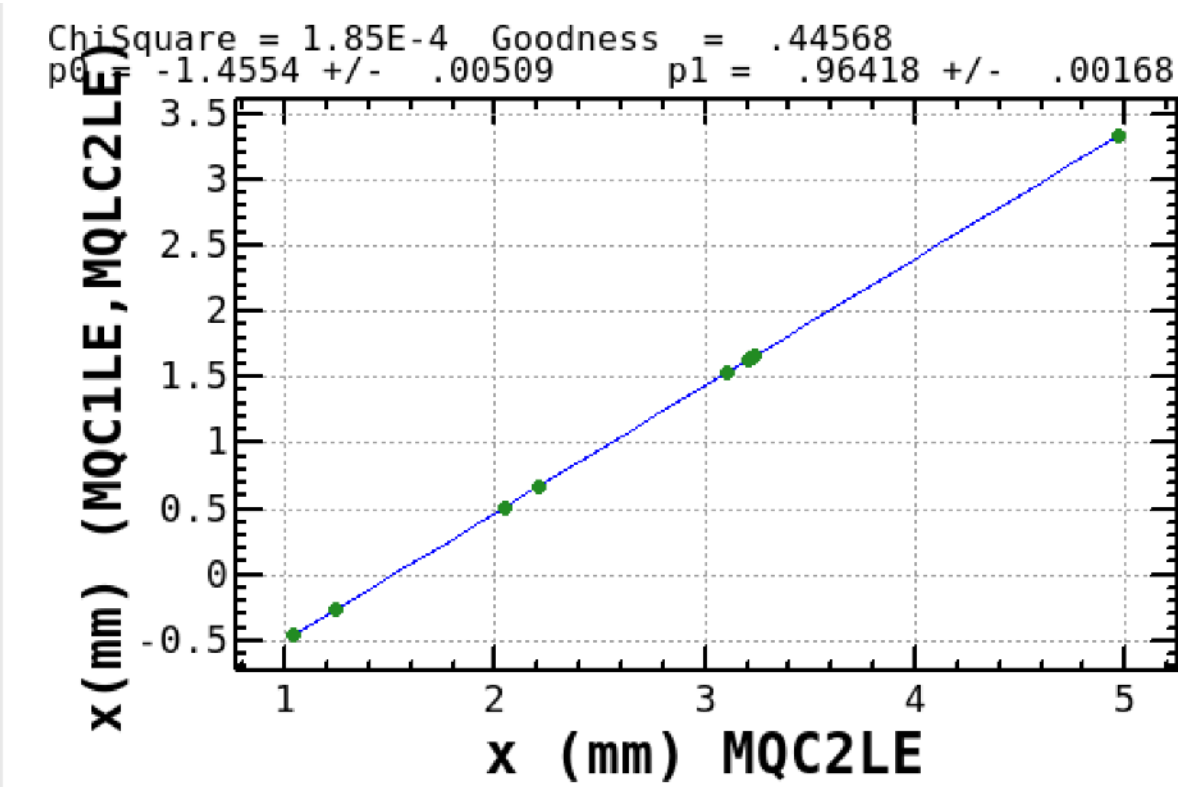
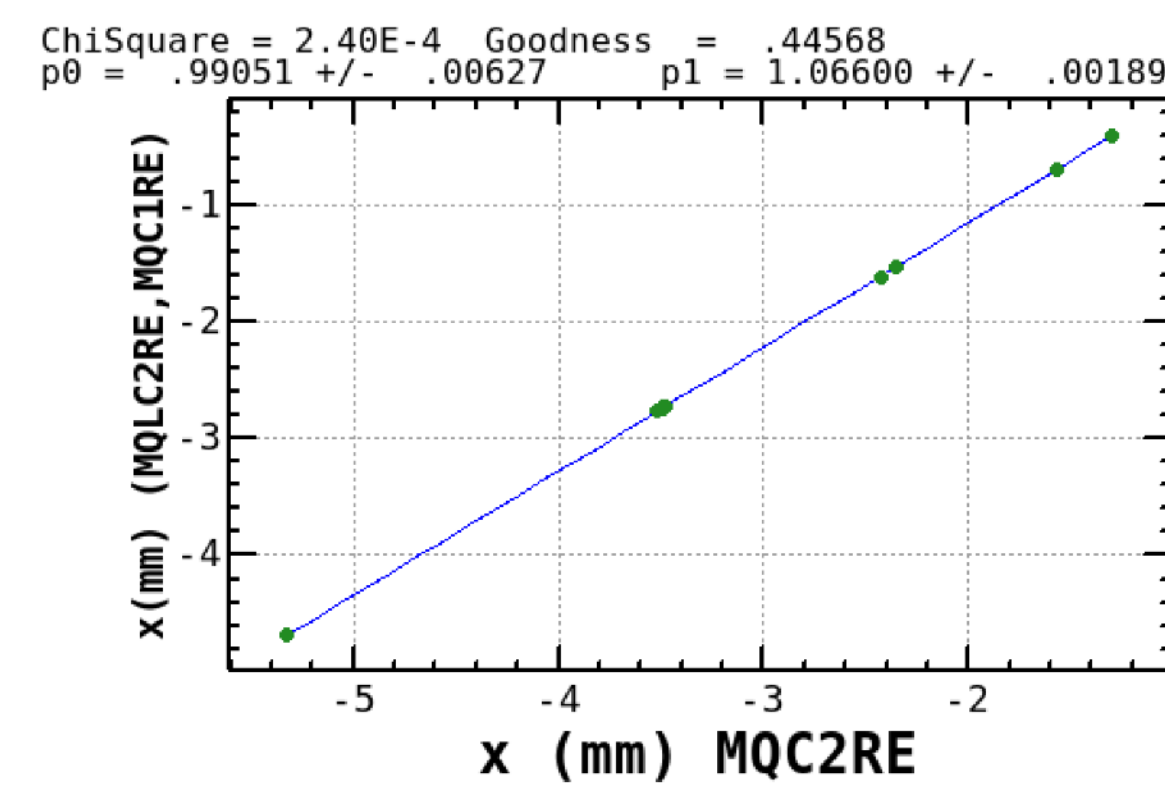
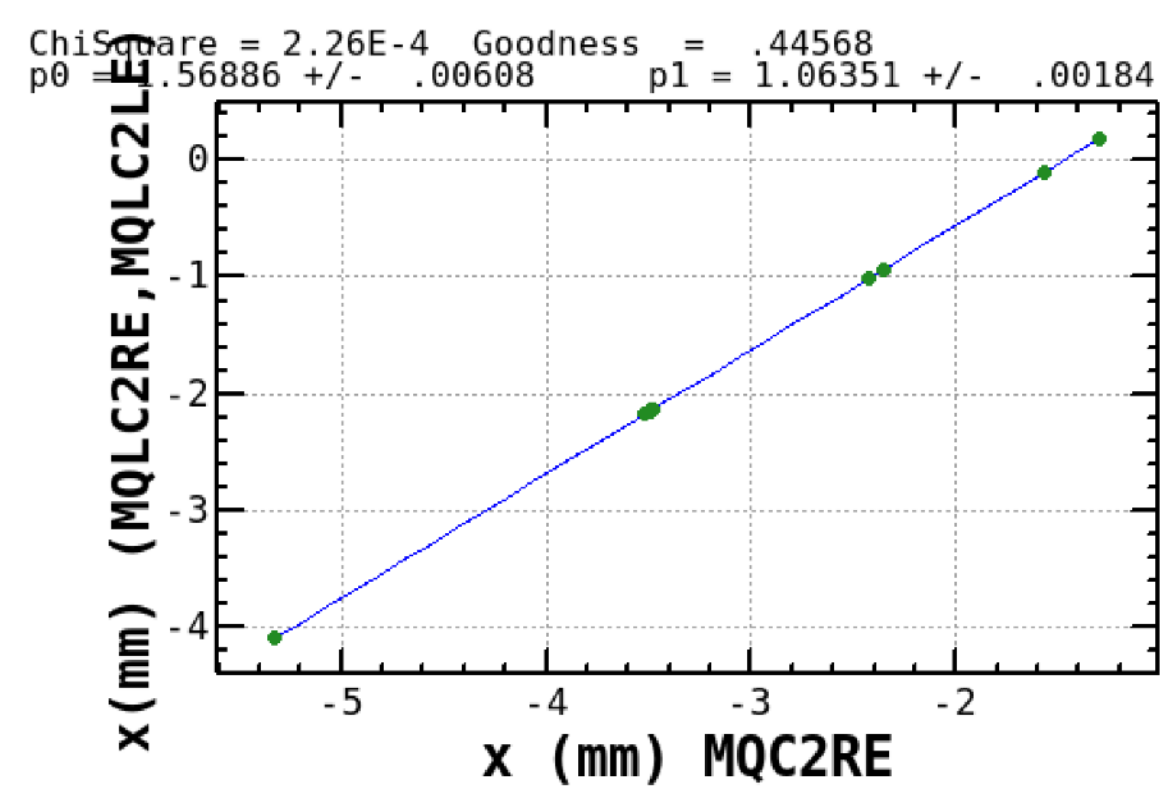
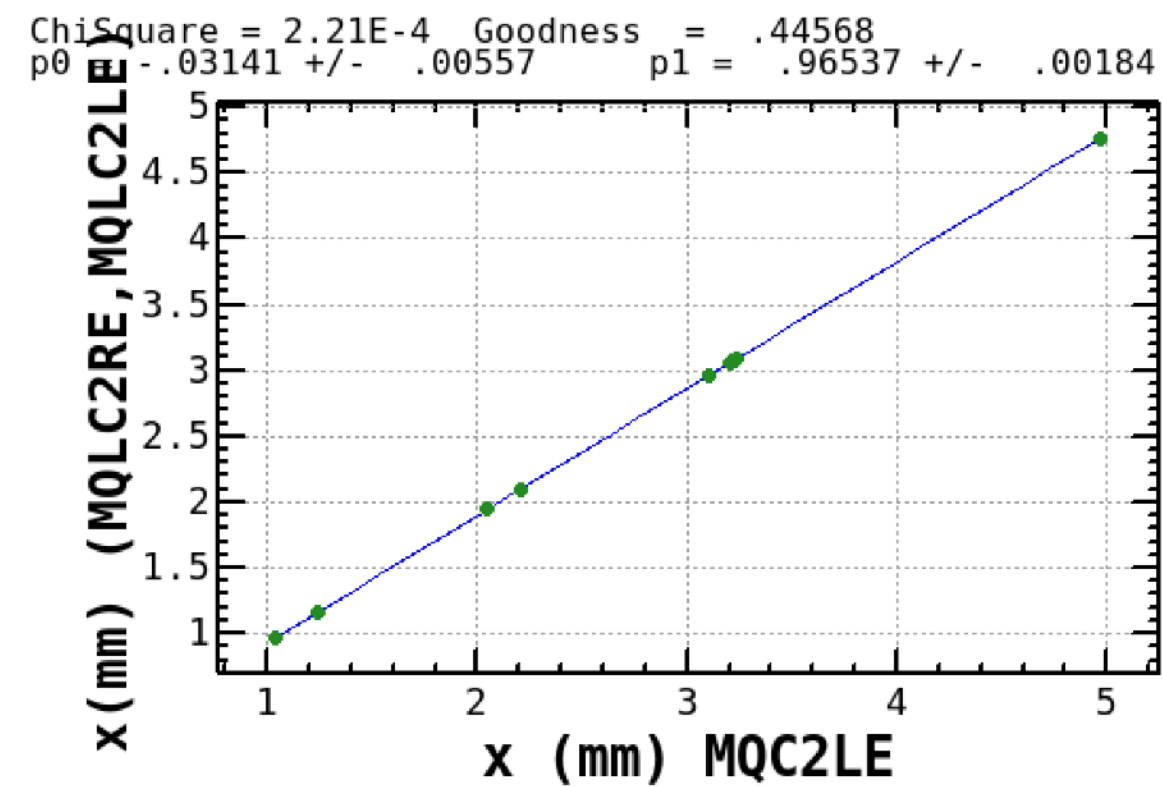
(A) MQLC2 - MQC1

(B) MQC2 - MQC1



QC2 BPMを使って、
QC1 BPMを調べると
slopeが、全くおかしい。

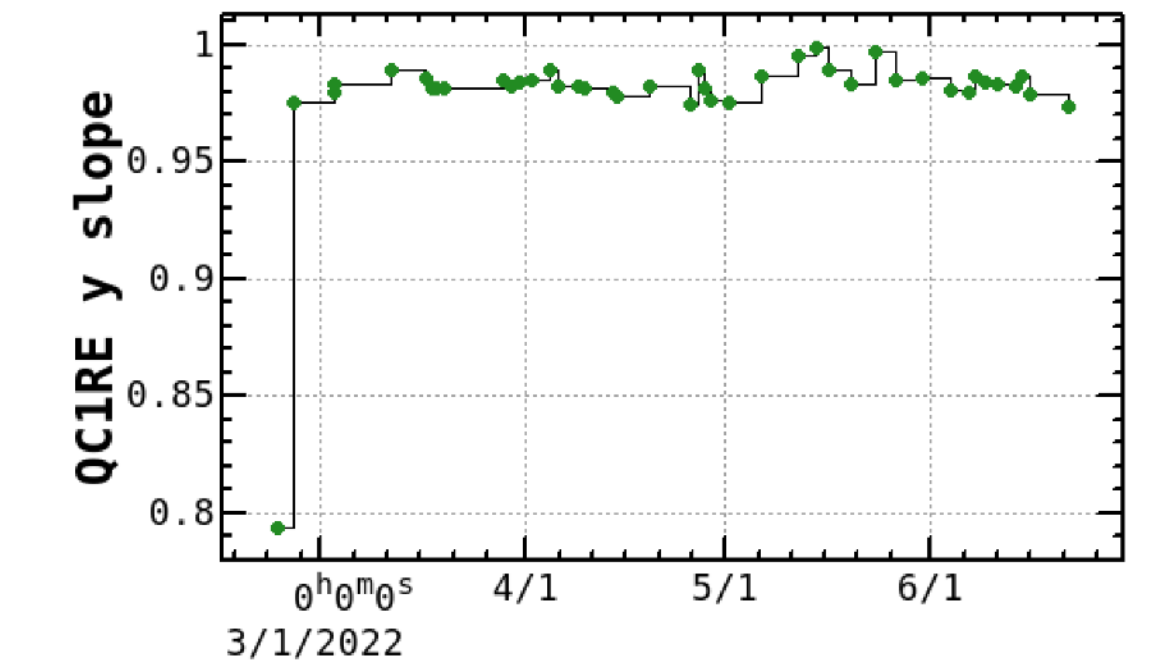
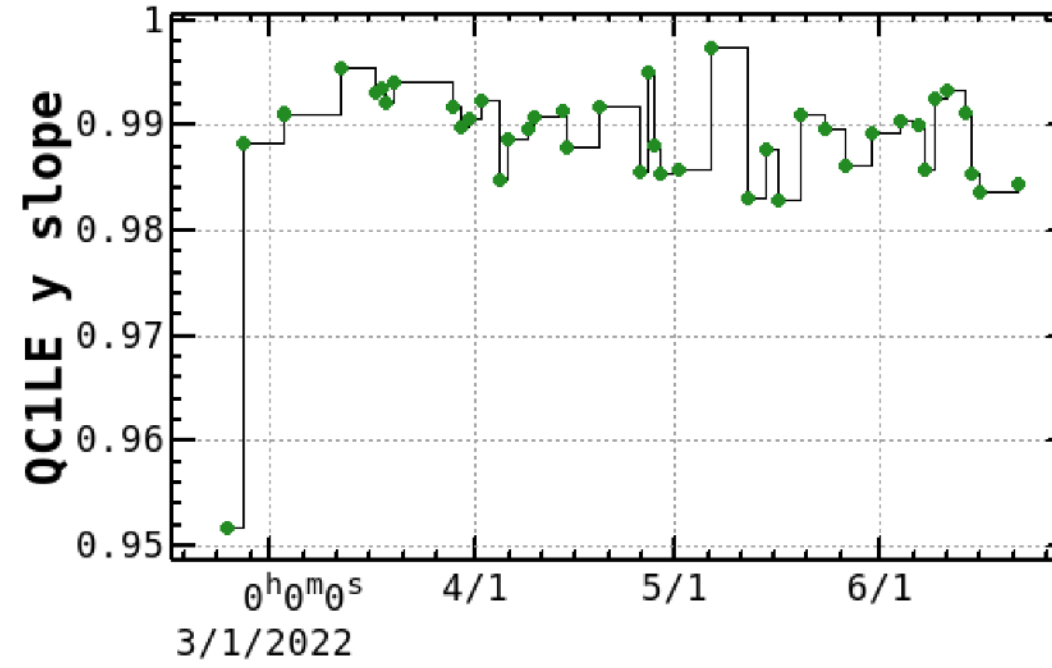
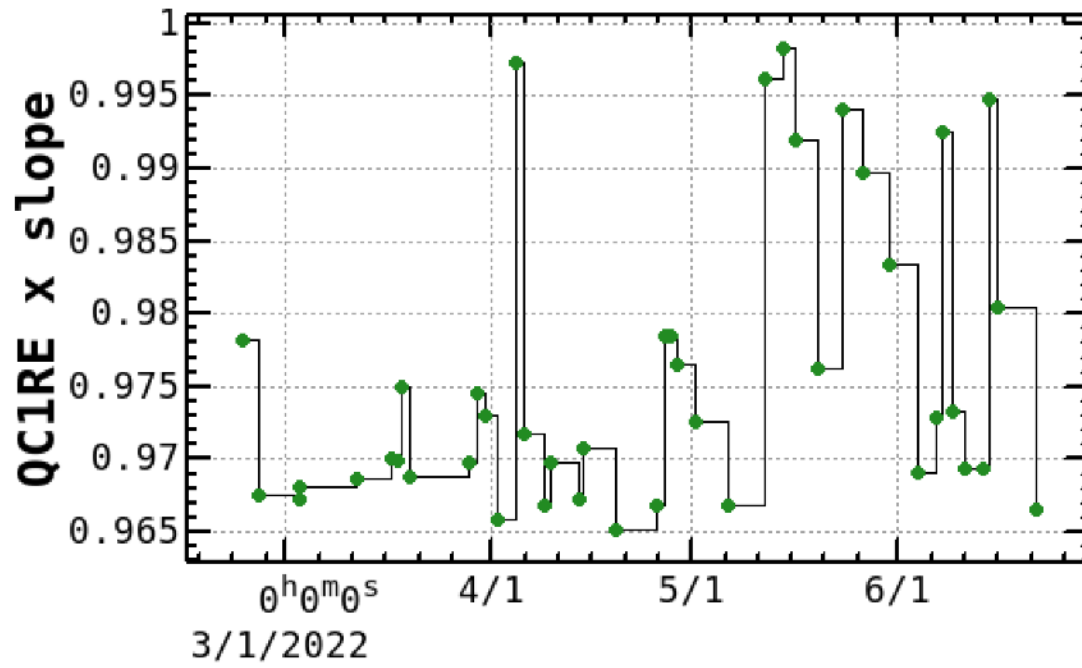
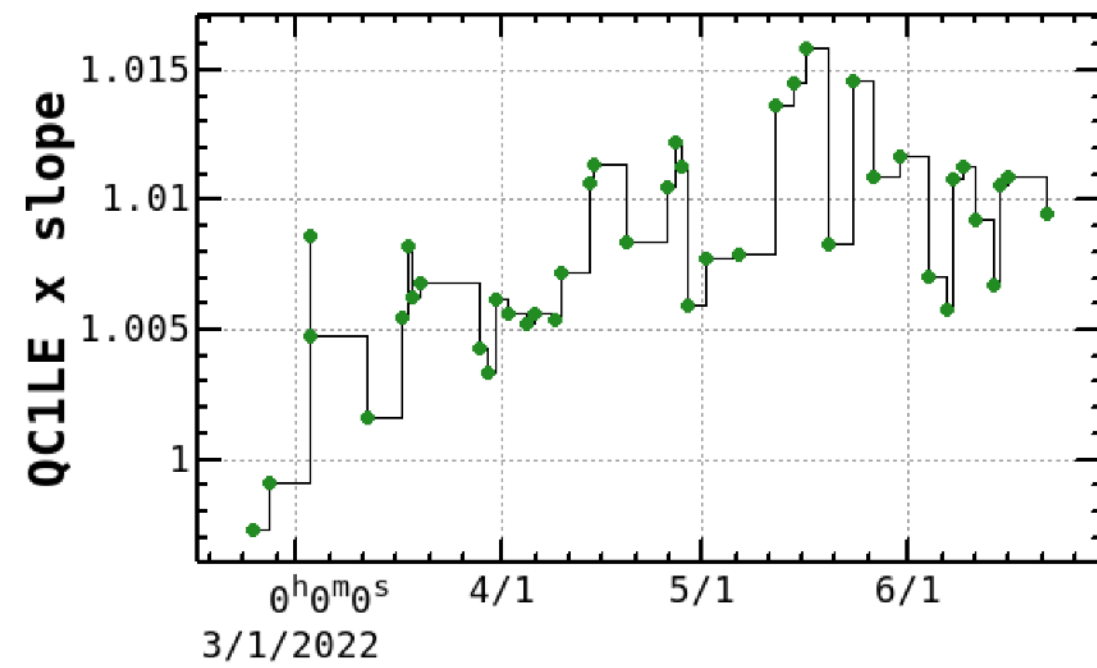
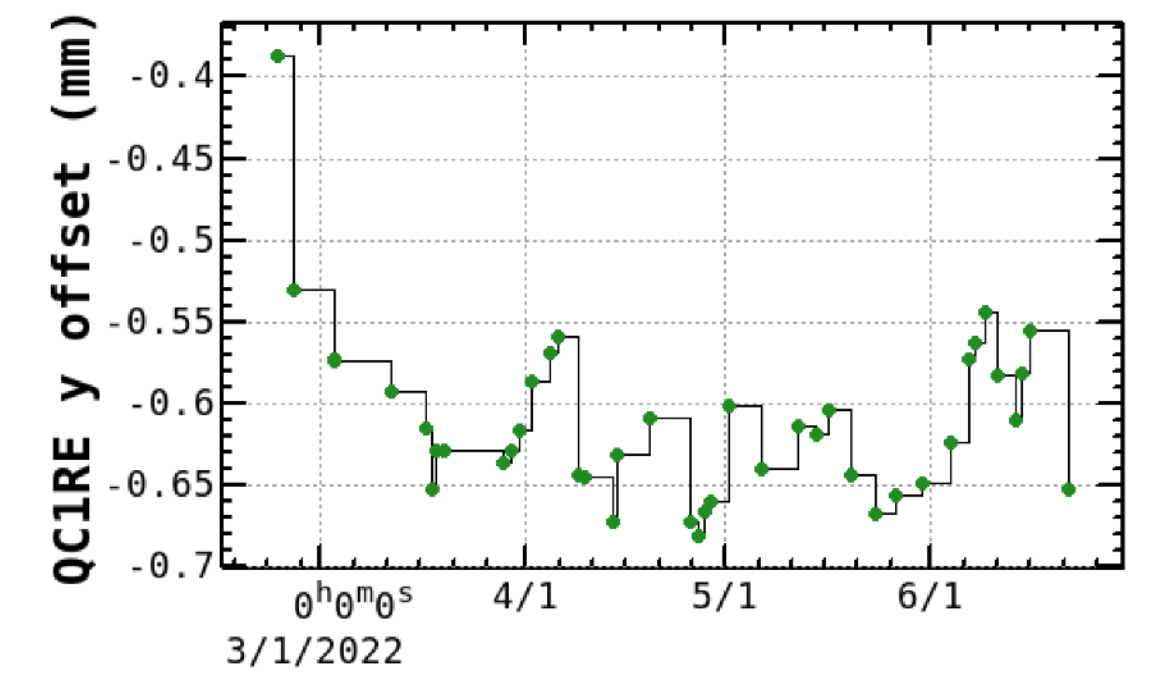
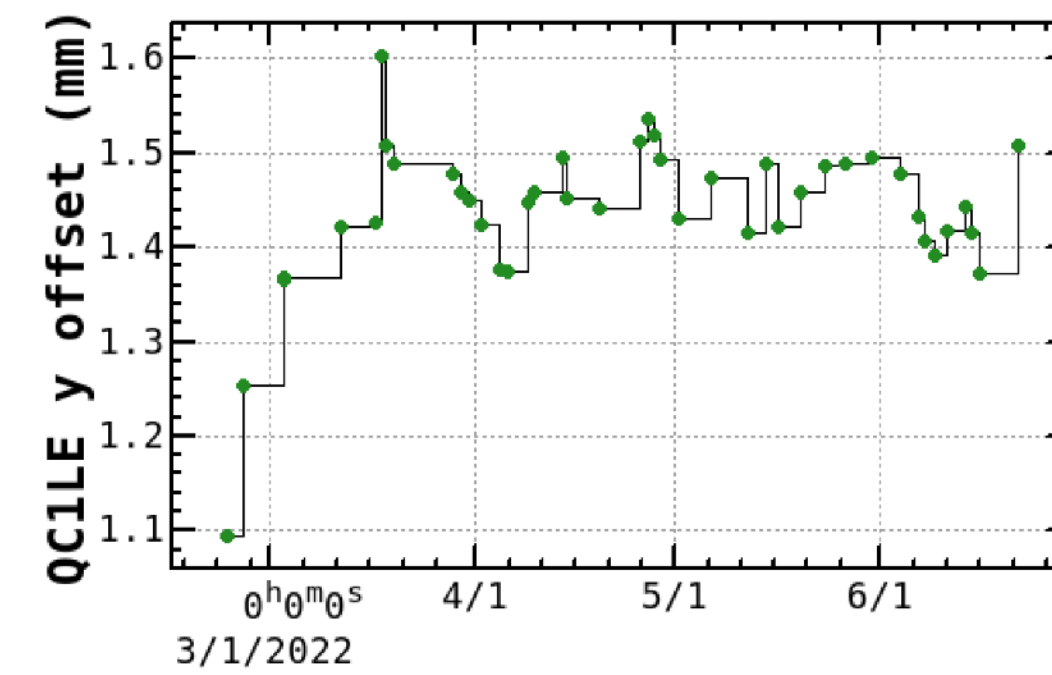
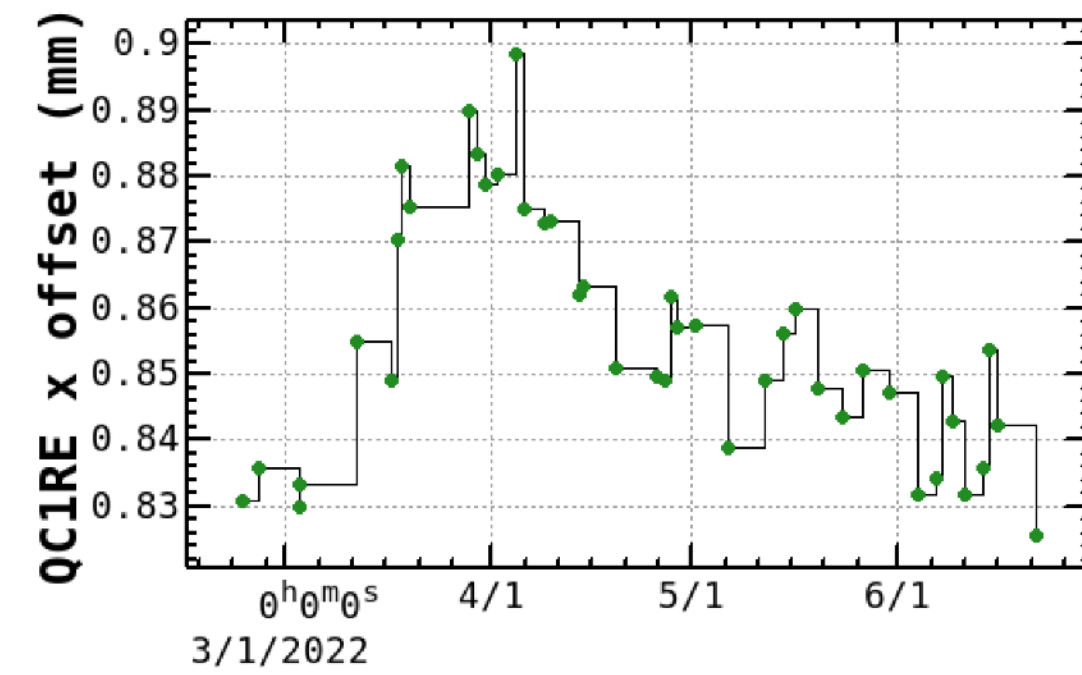
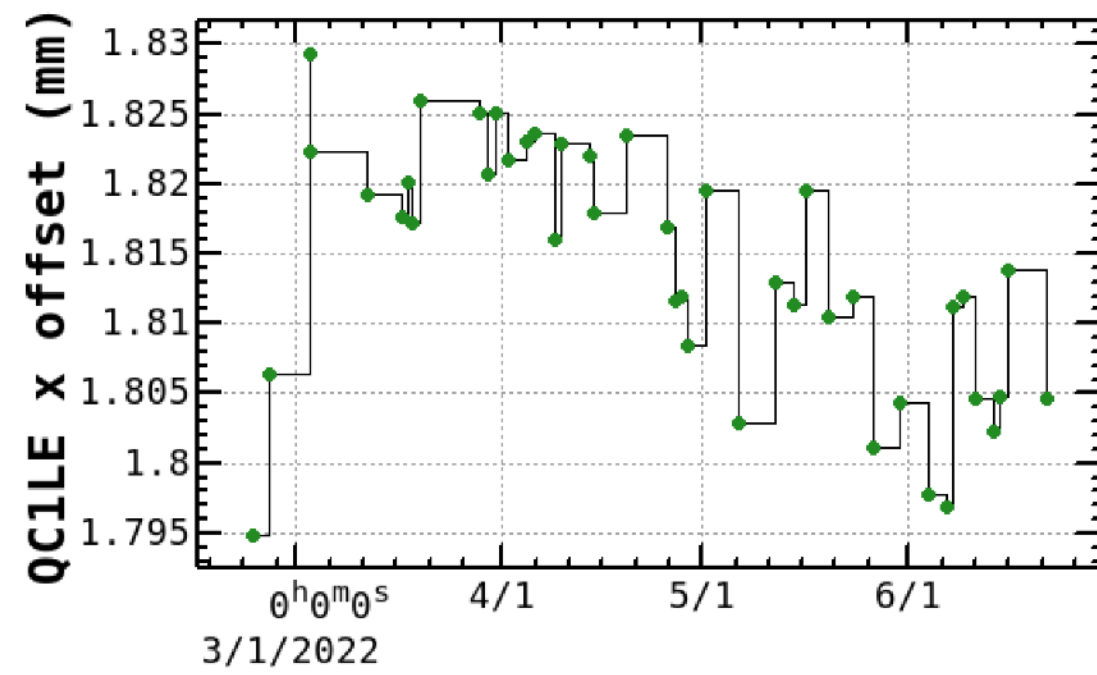
(C) MQLC2 - MQC2



QCSの外側から、
QC2 BPMを調べると
slopeは、ほぼ1である。

Horizontal

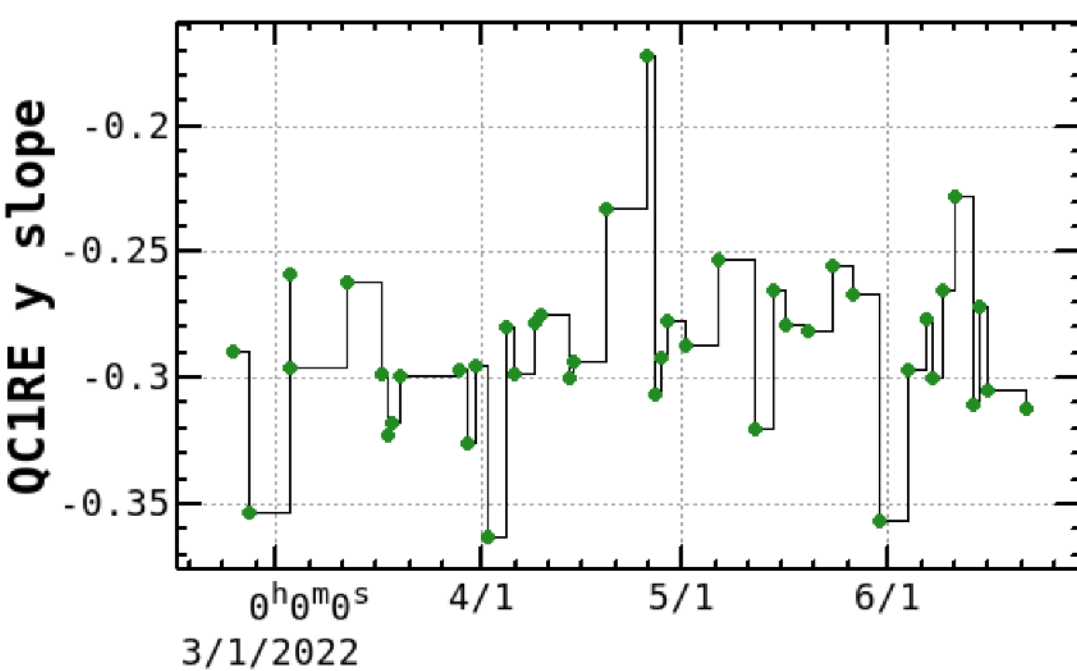
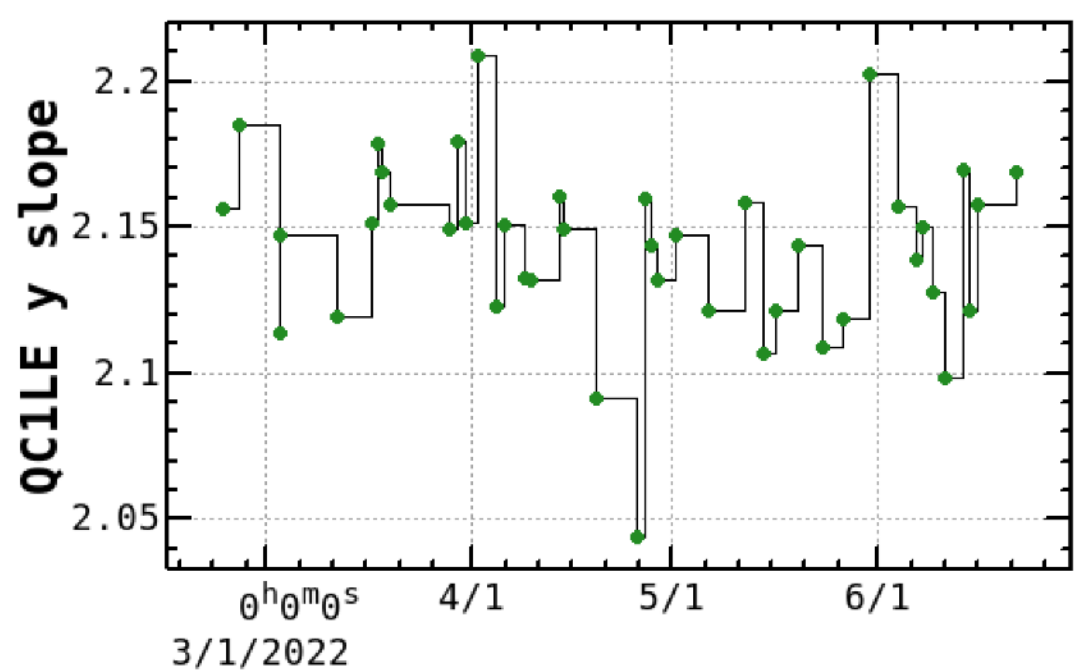
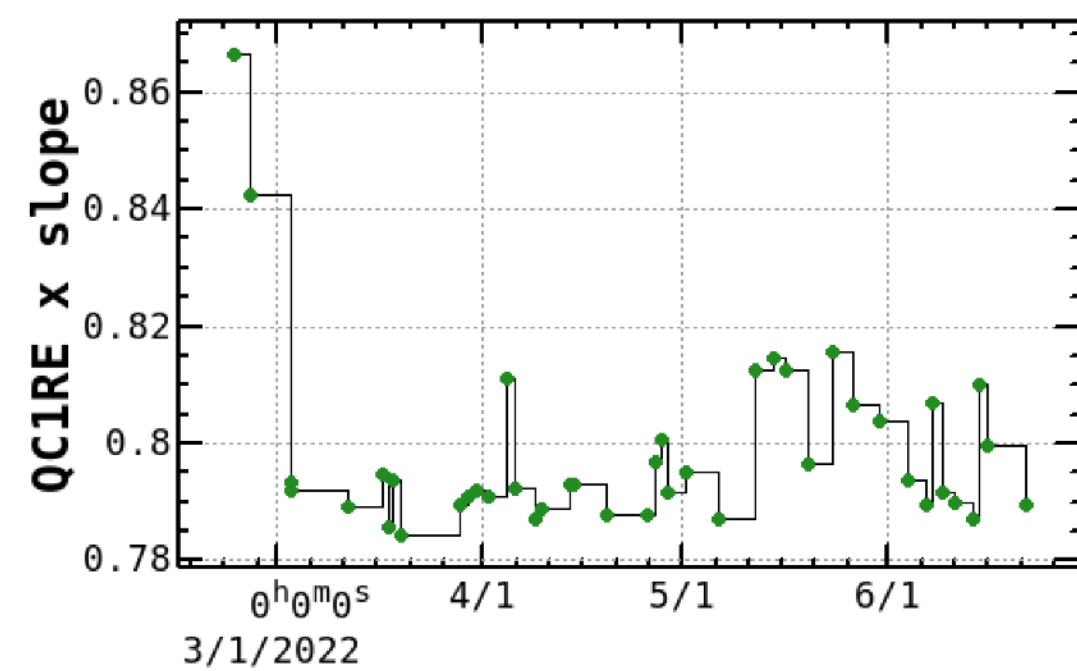
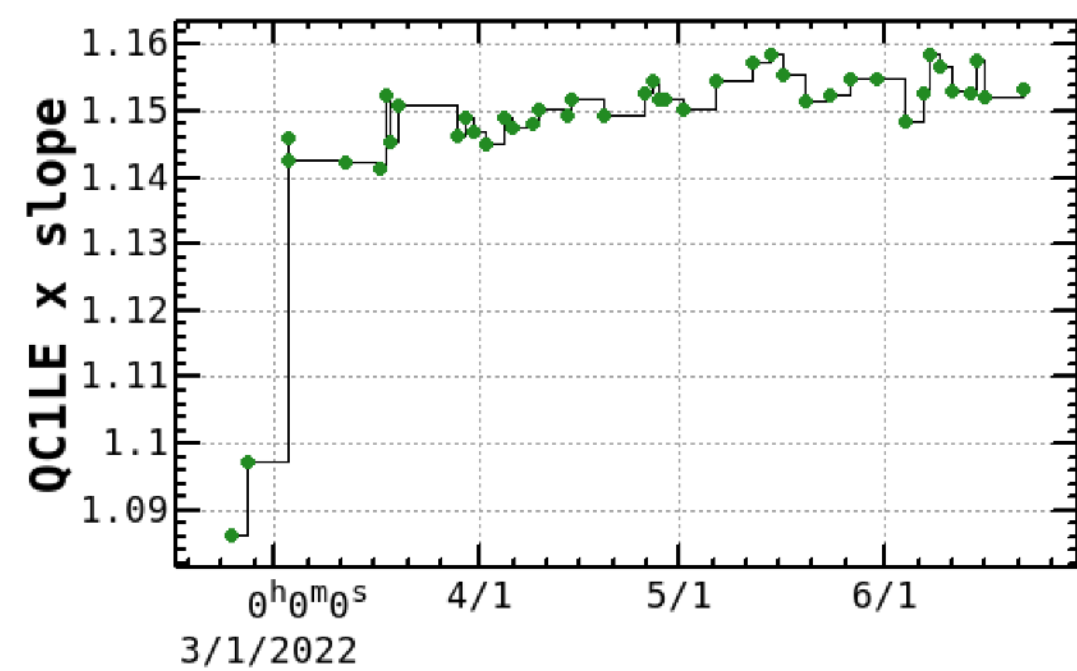
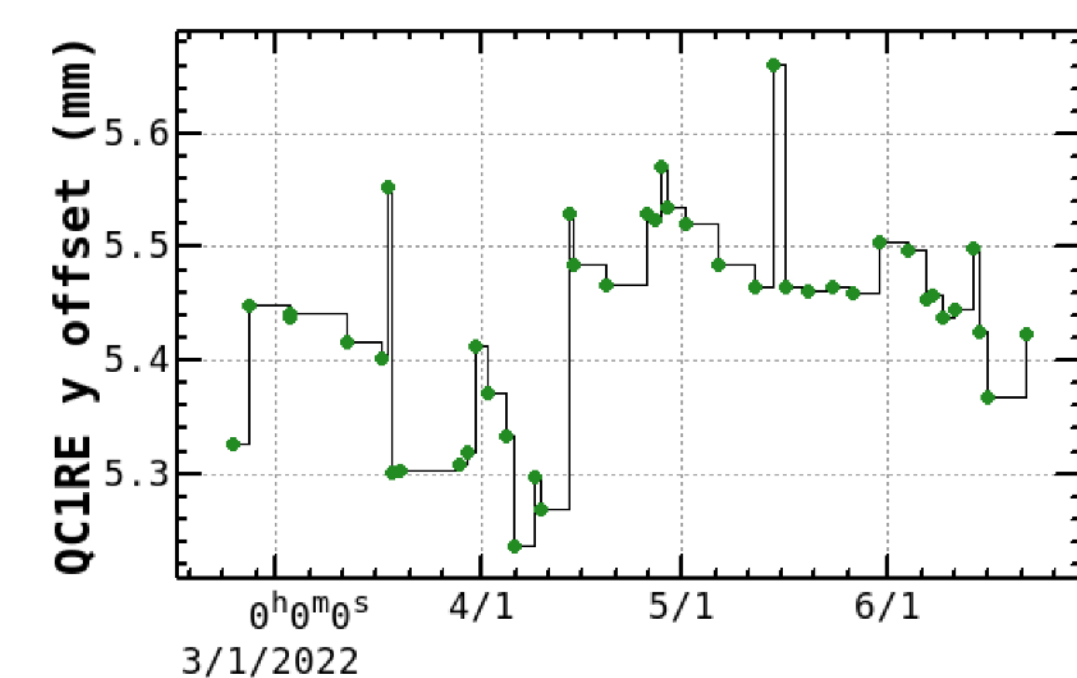
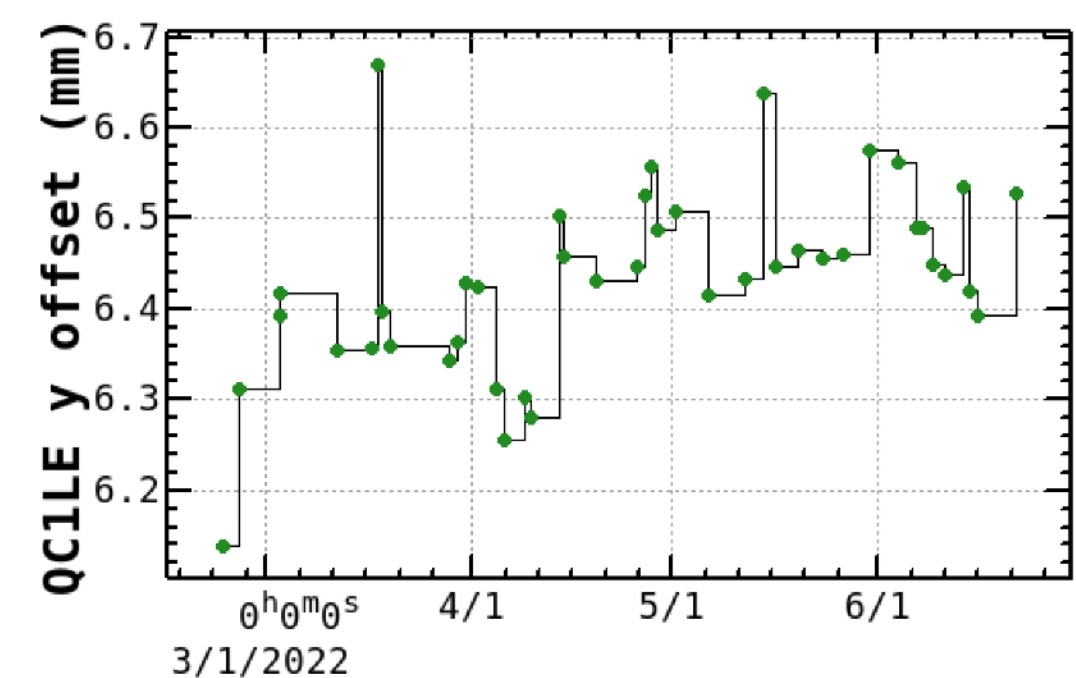
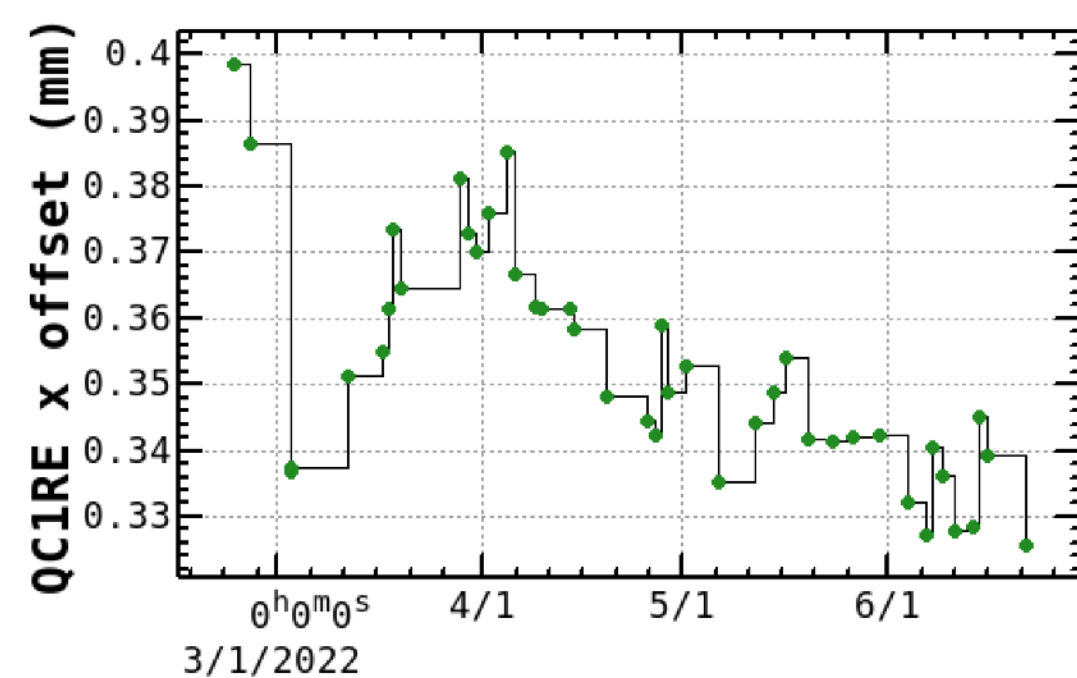
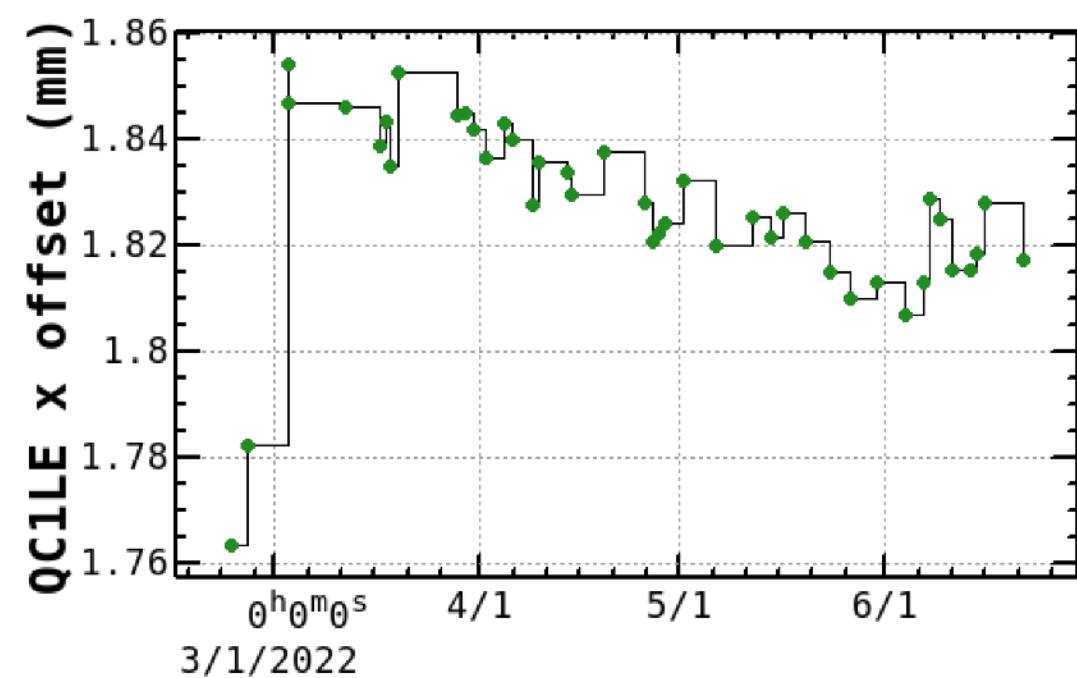
Vertical



Slope is almost 1 in the horizontal direction.

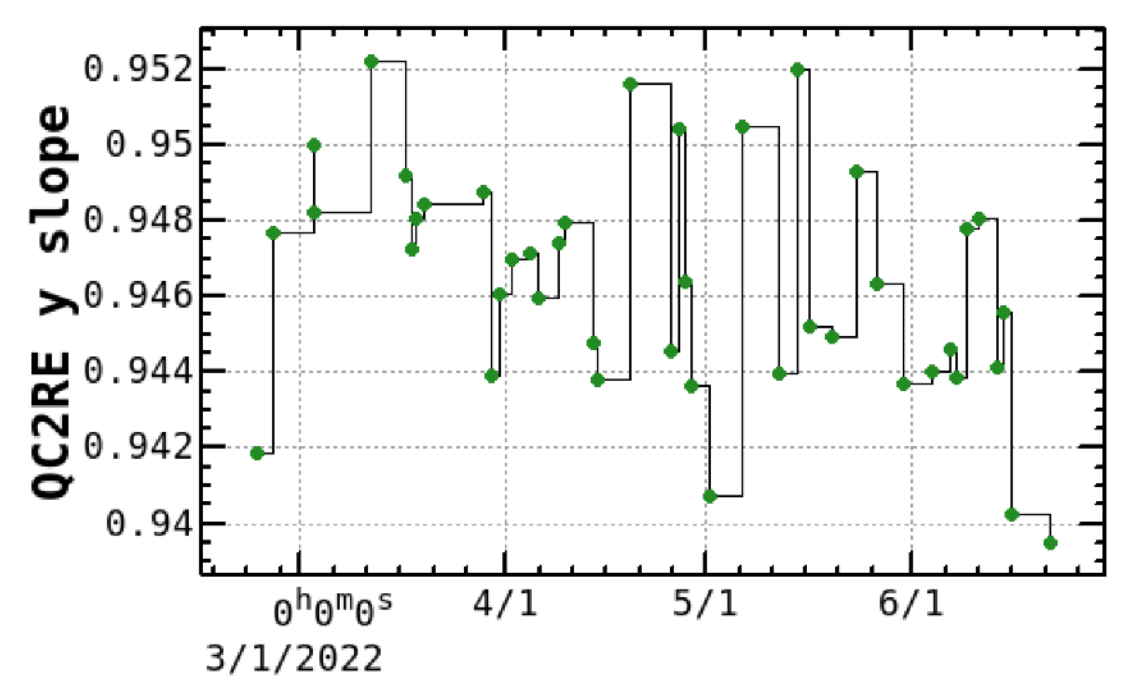
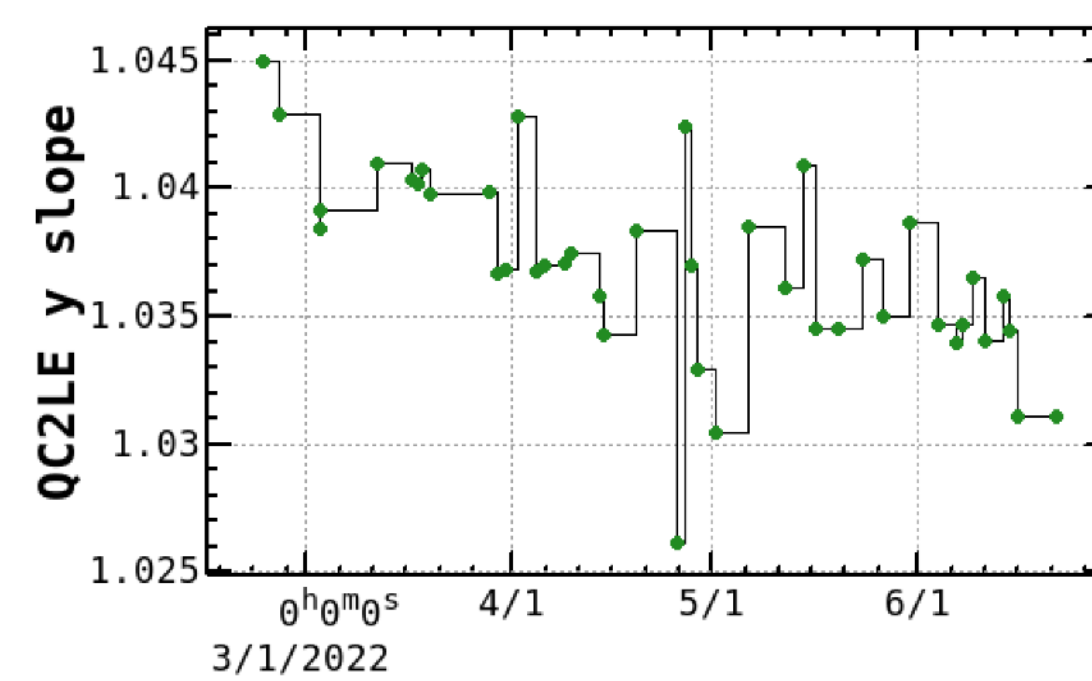
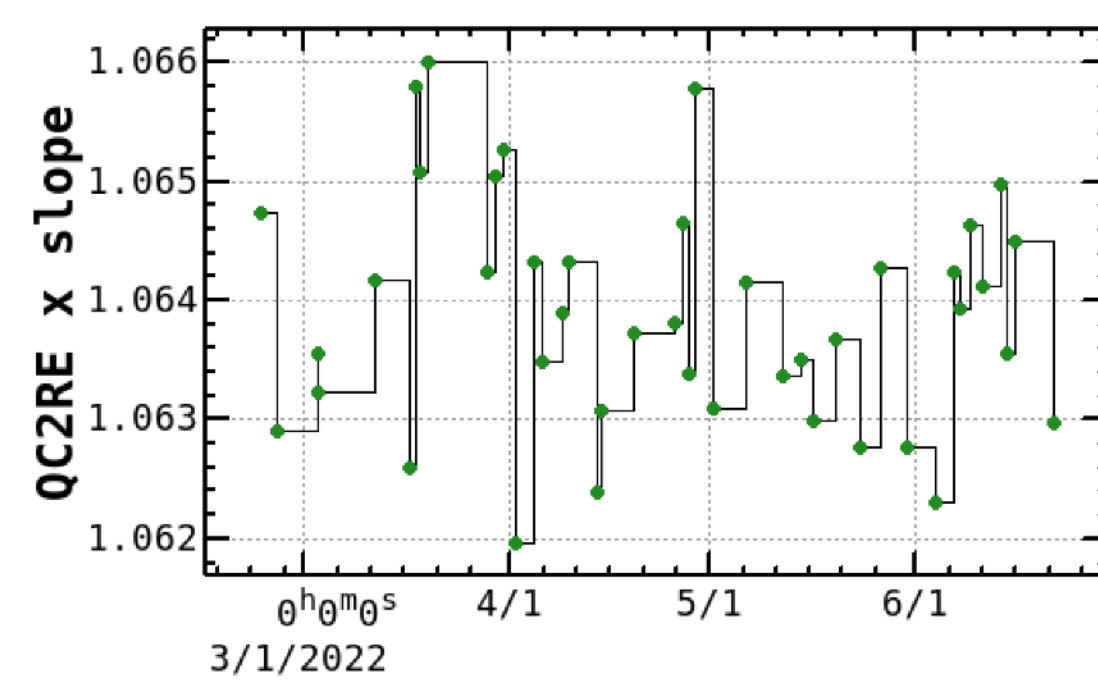
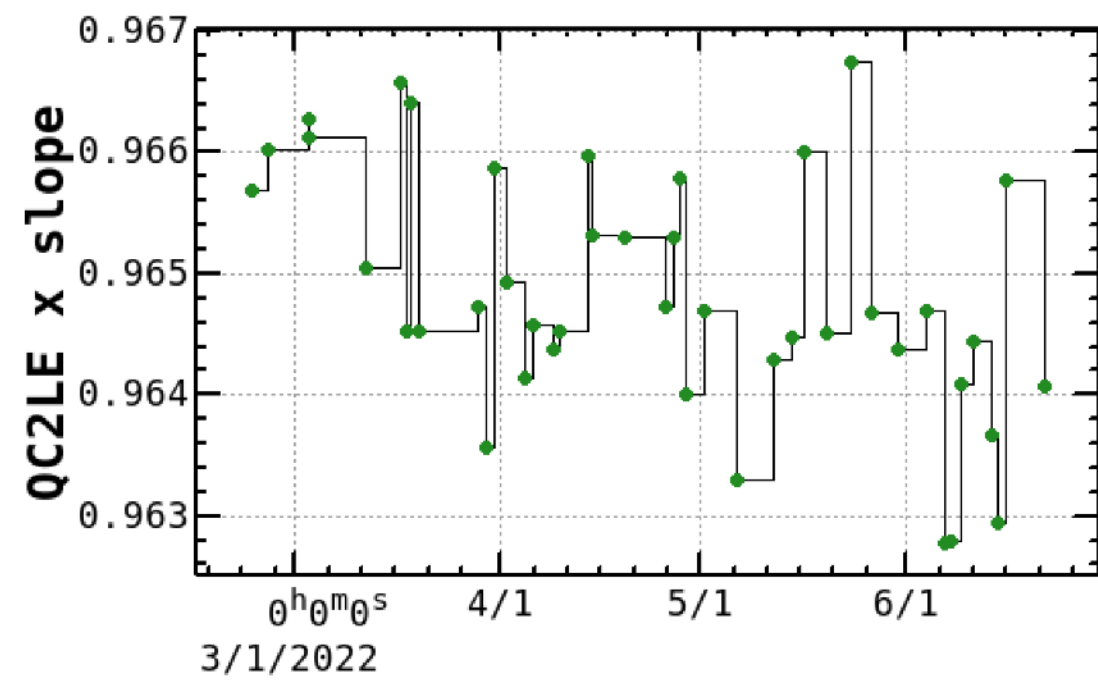
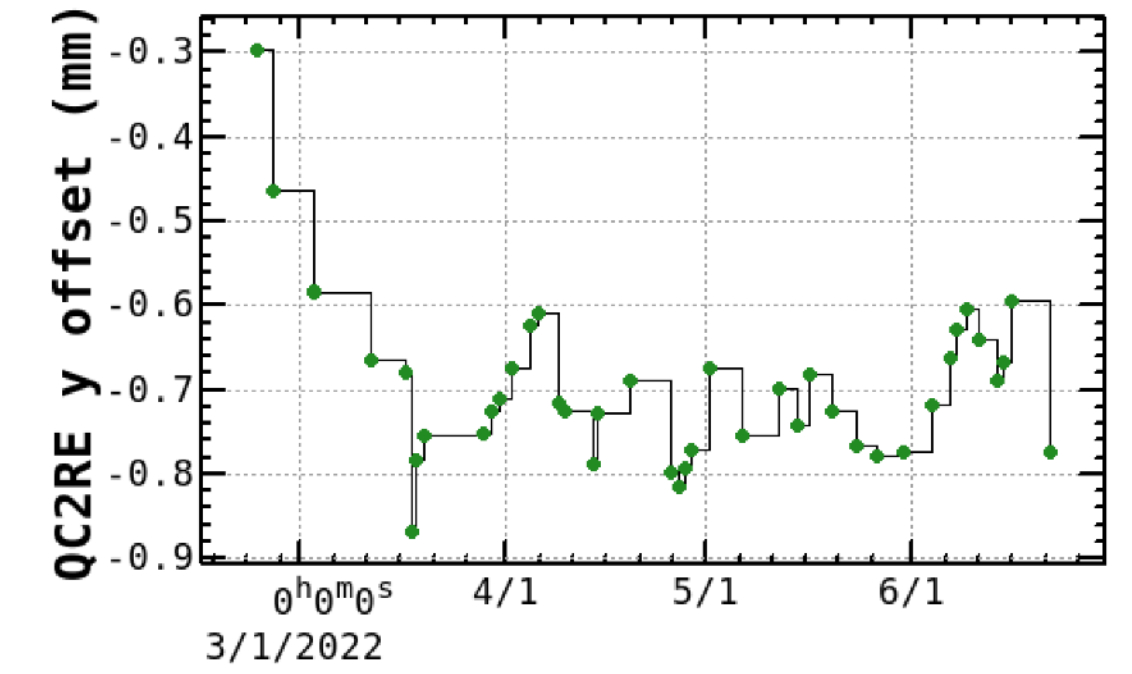
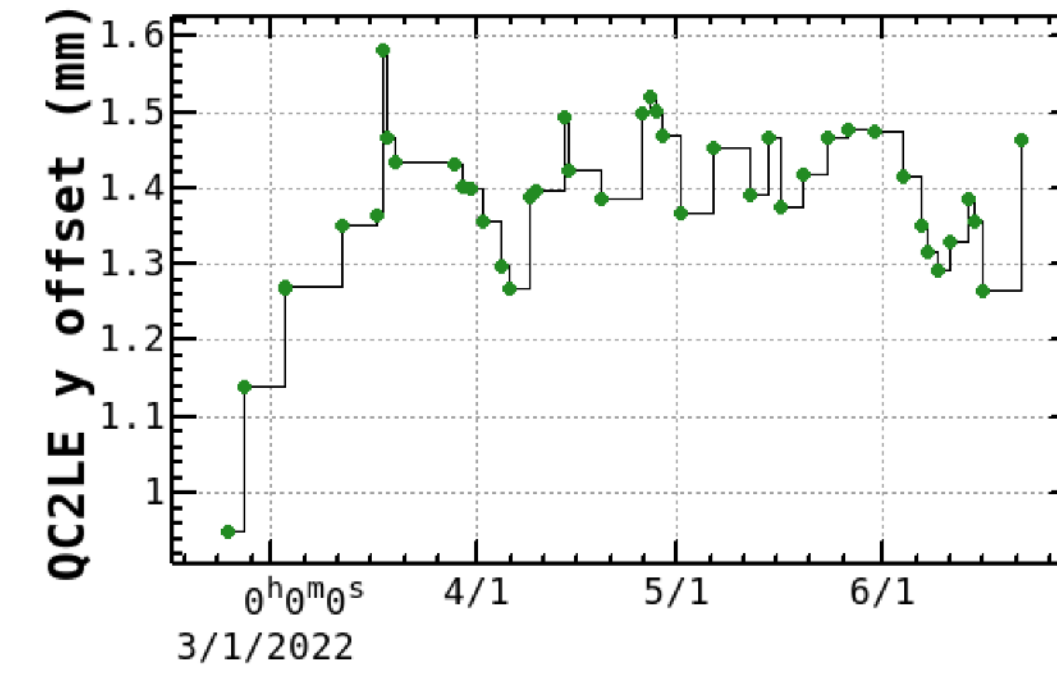
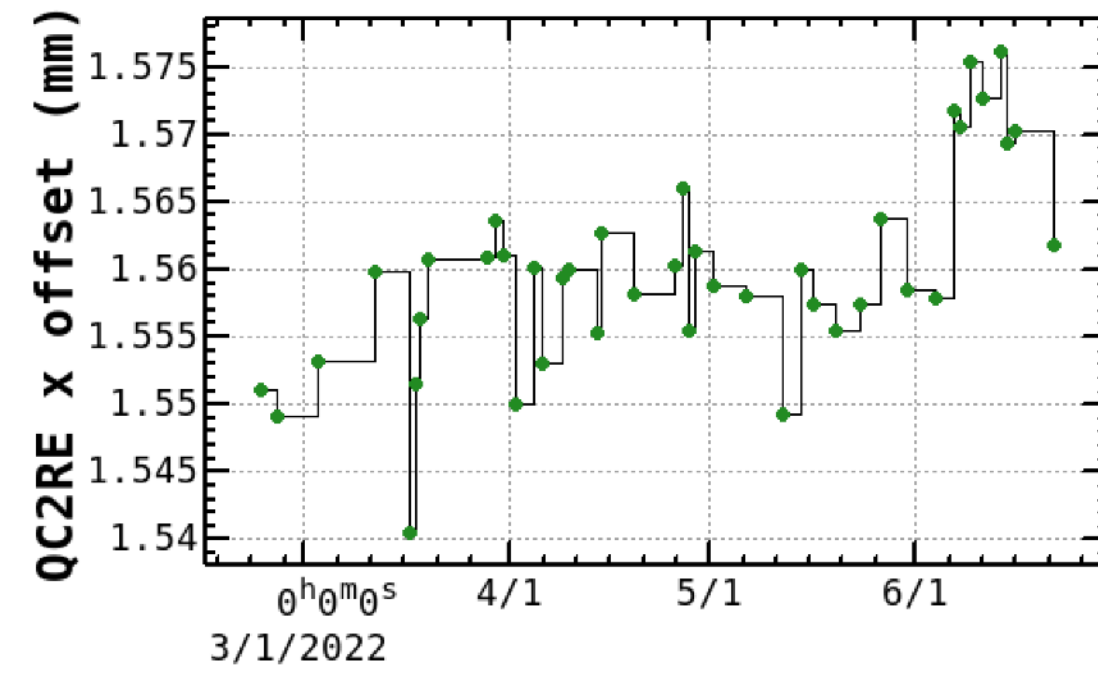
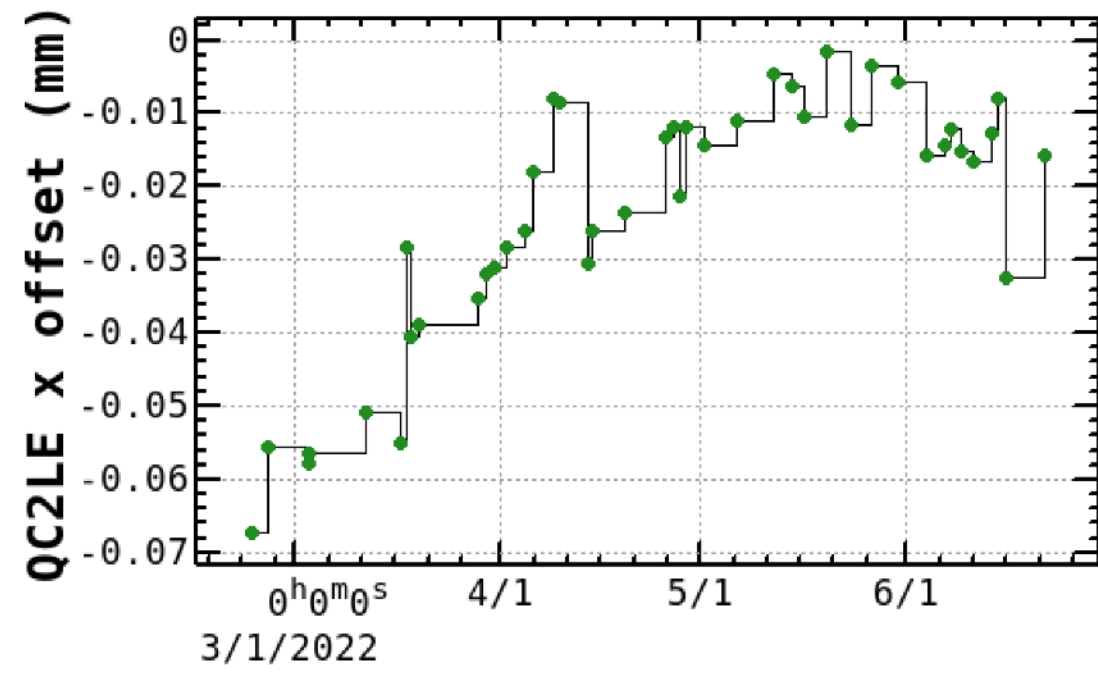
Horizontal

Vertical



Horizontal

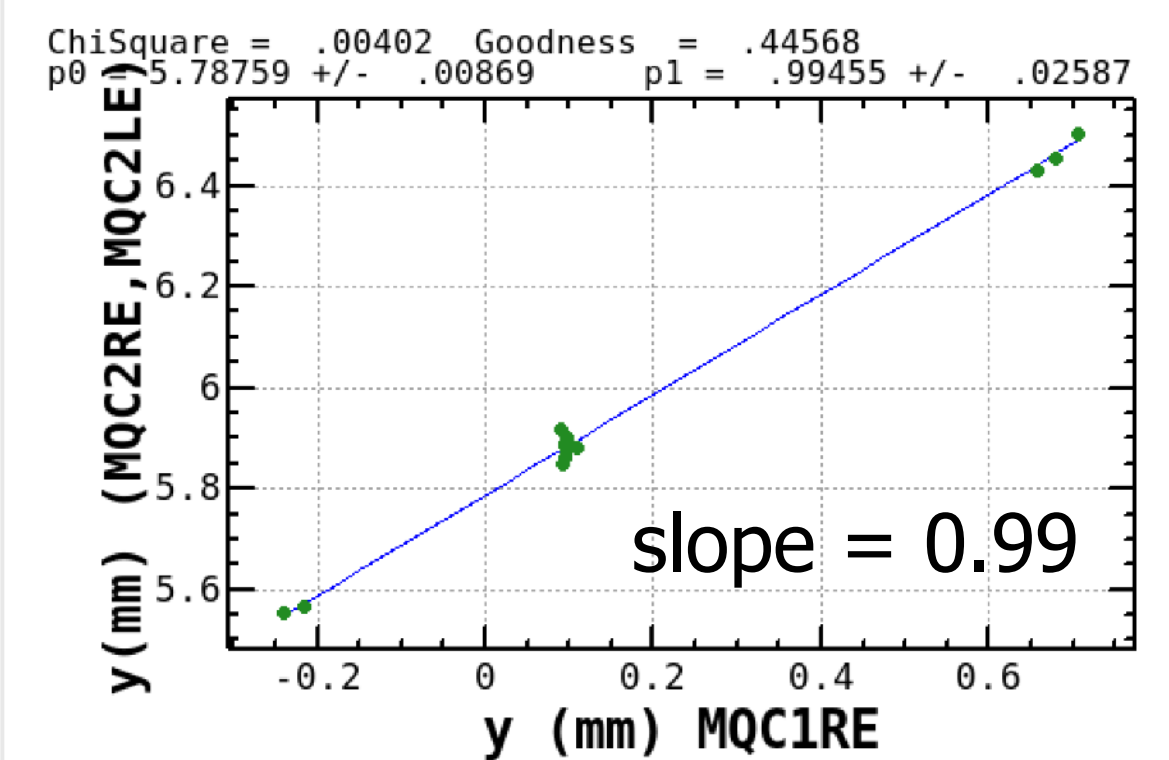
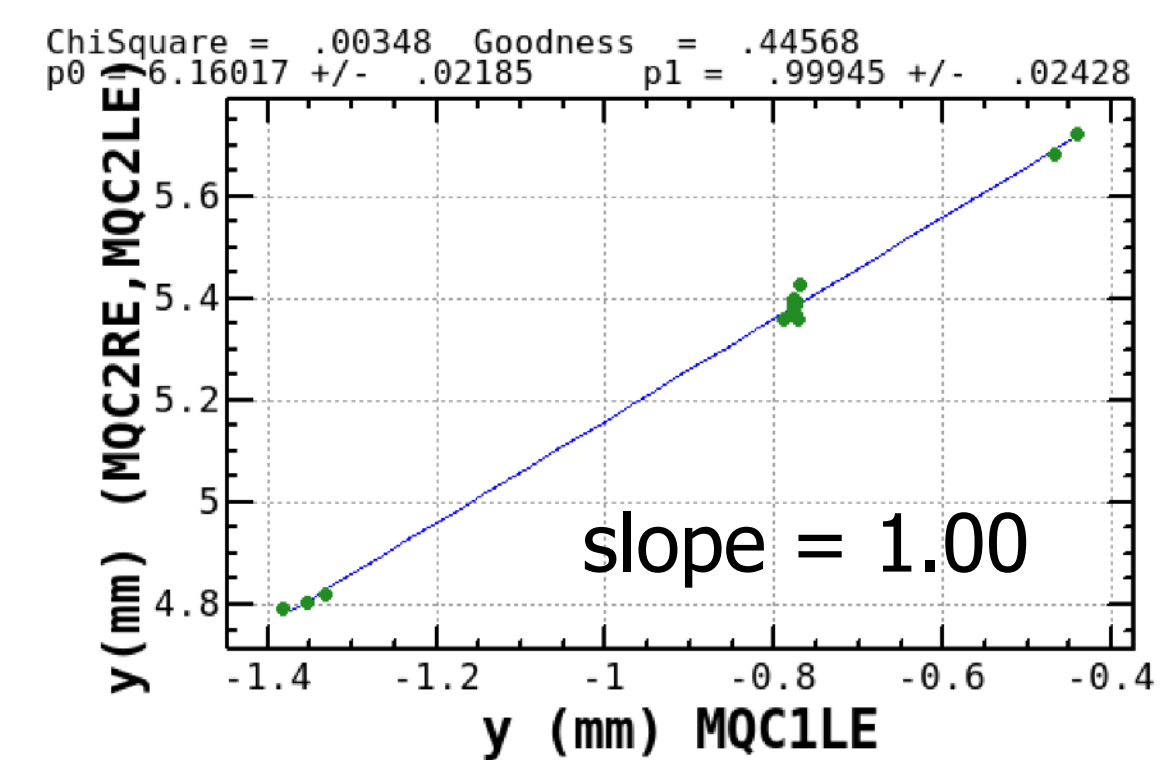
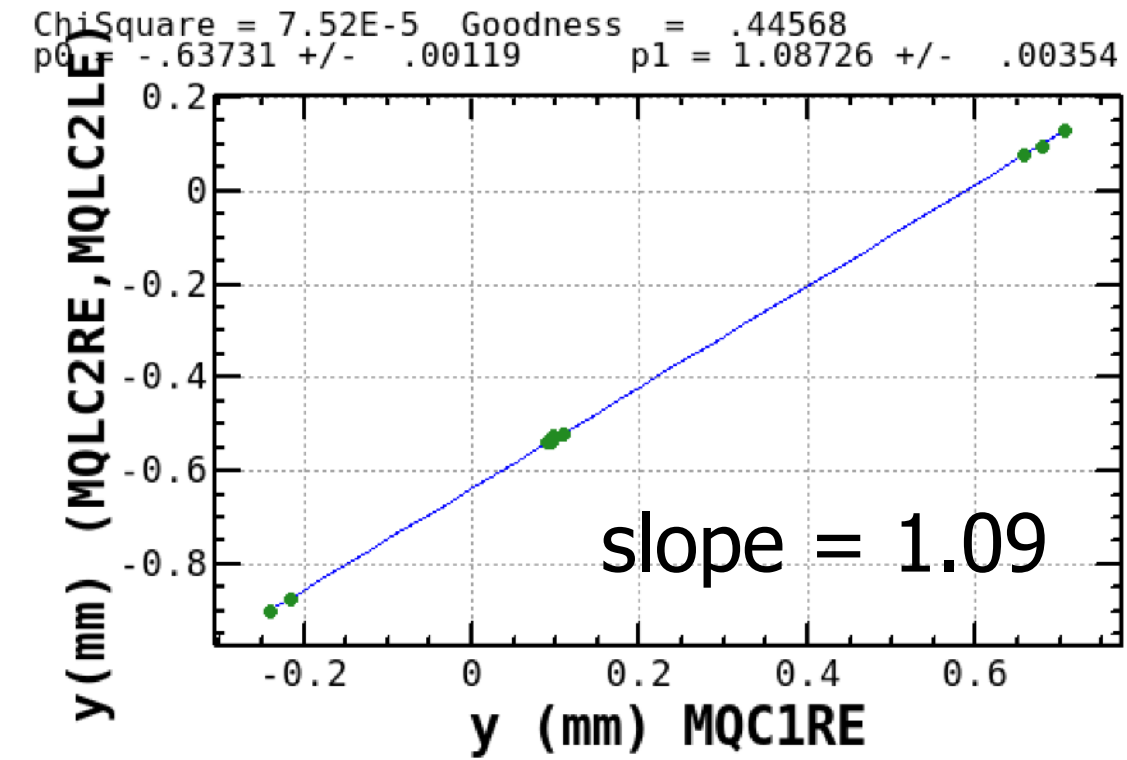
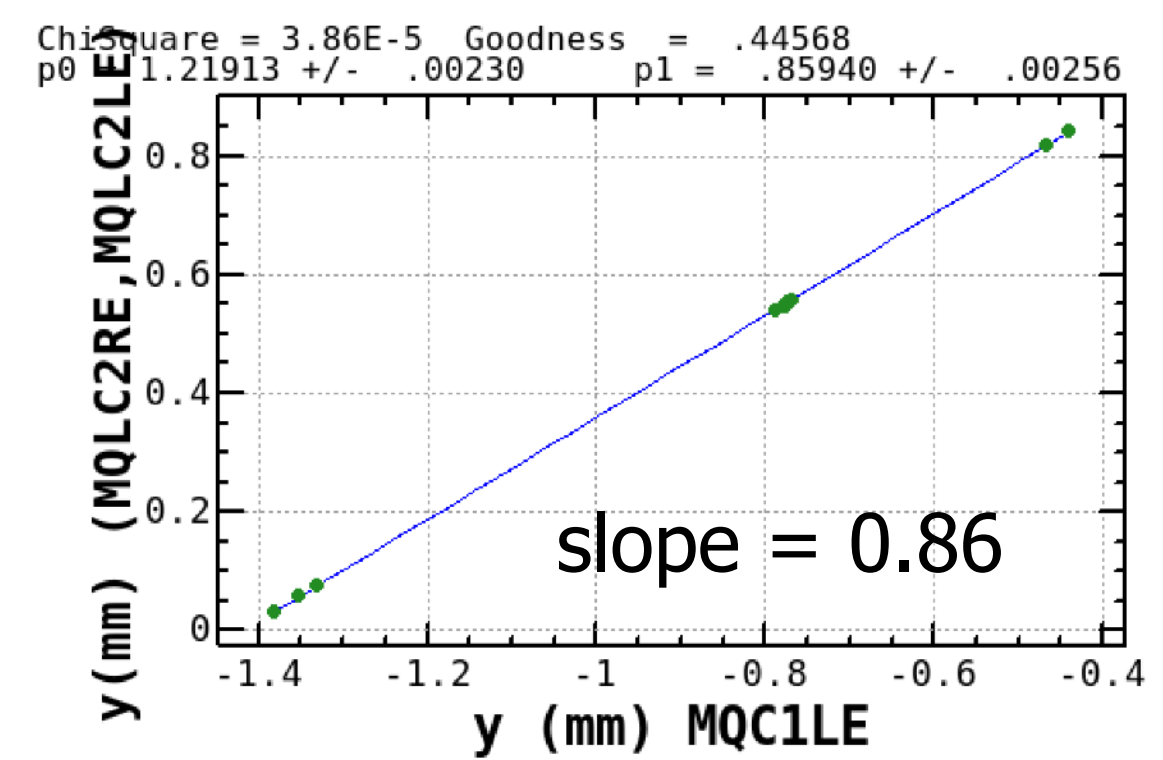
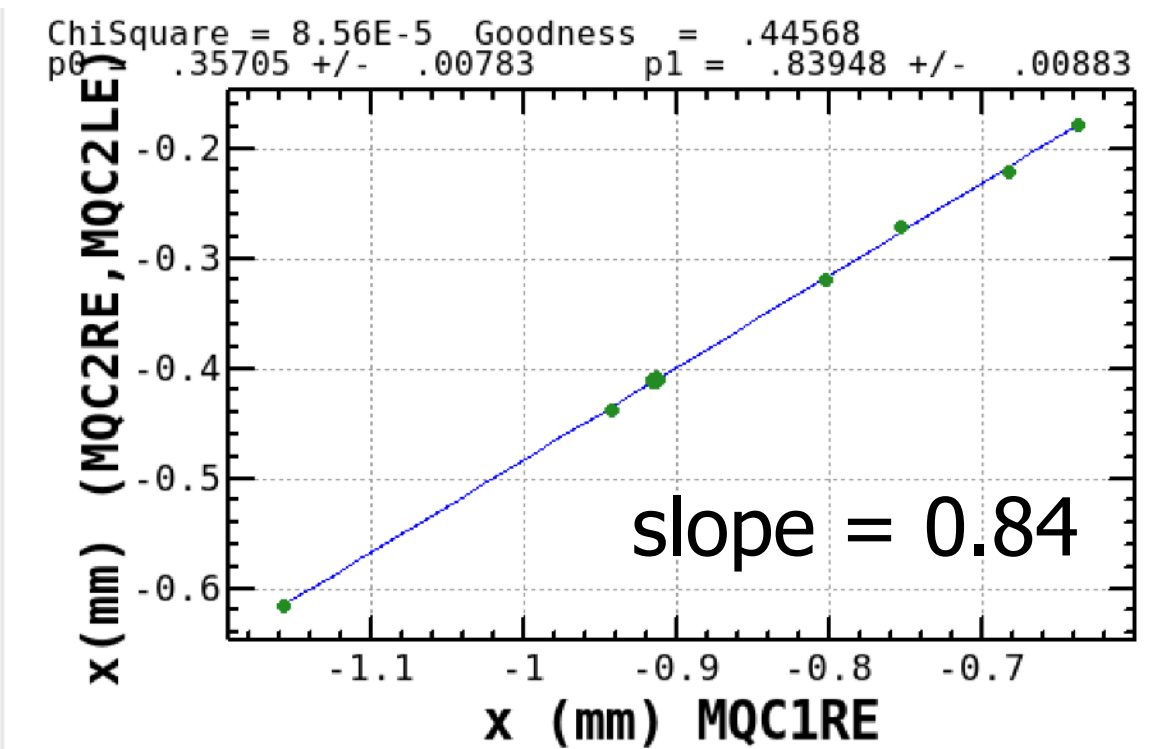
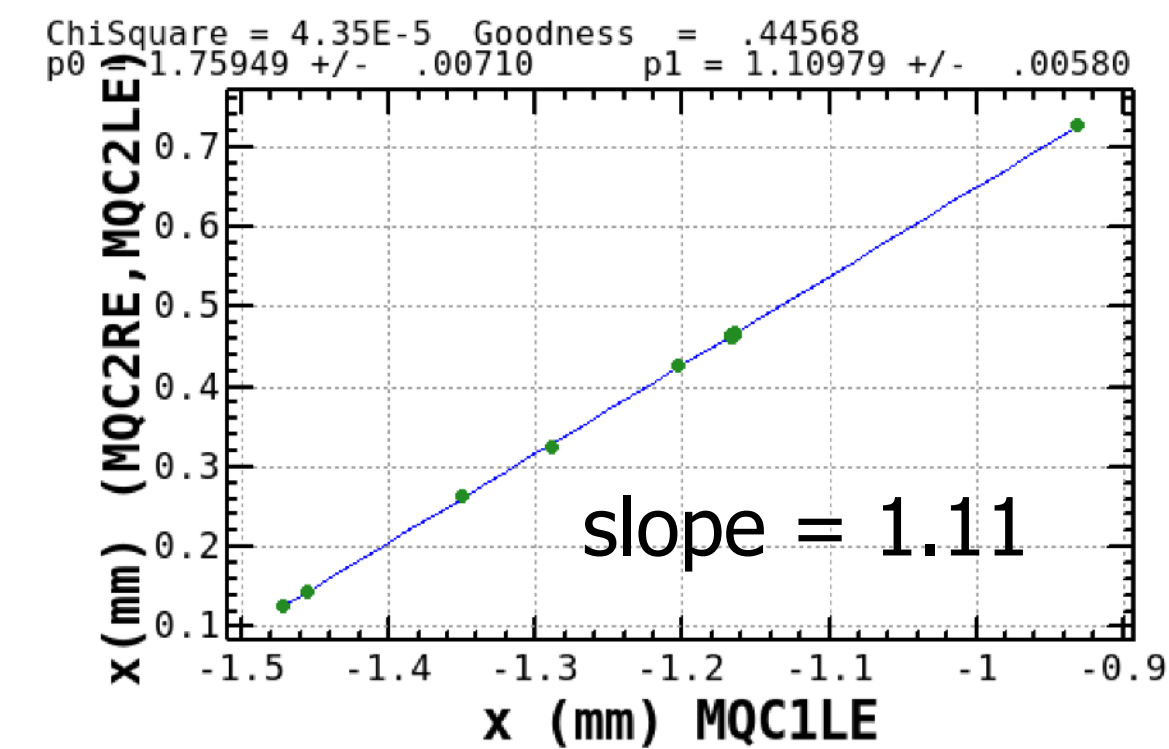
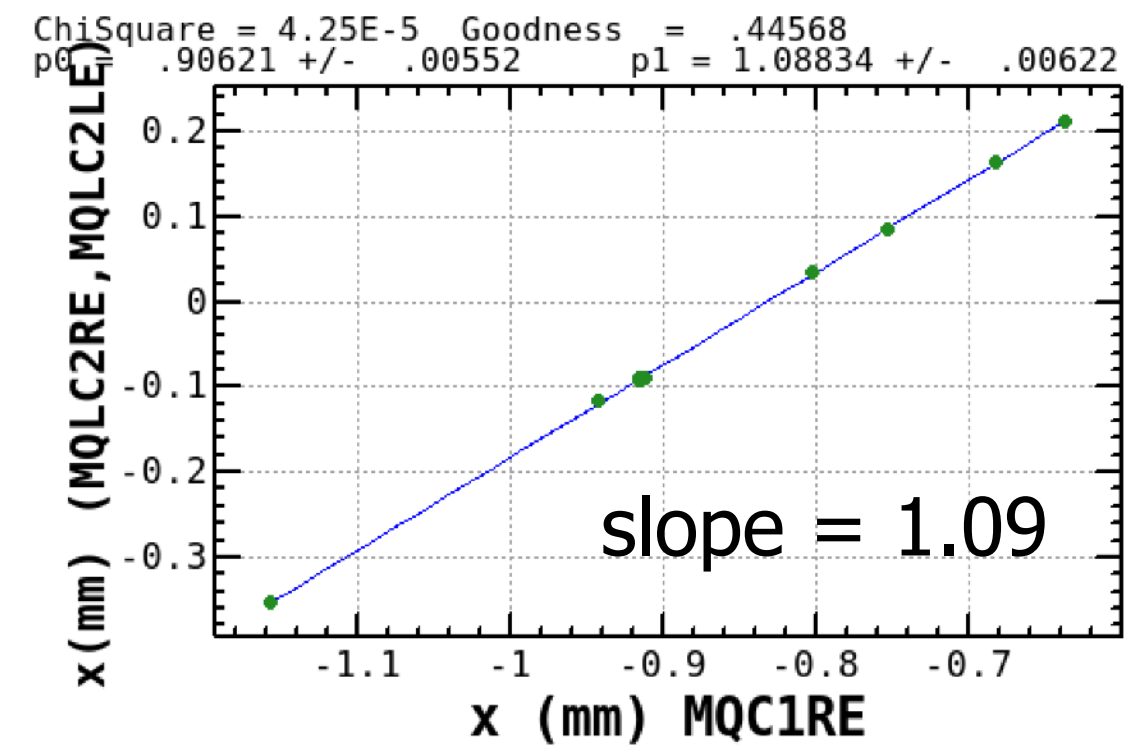
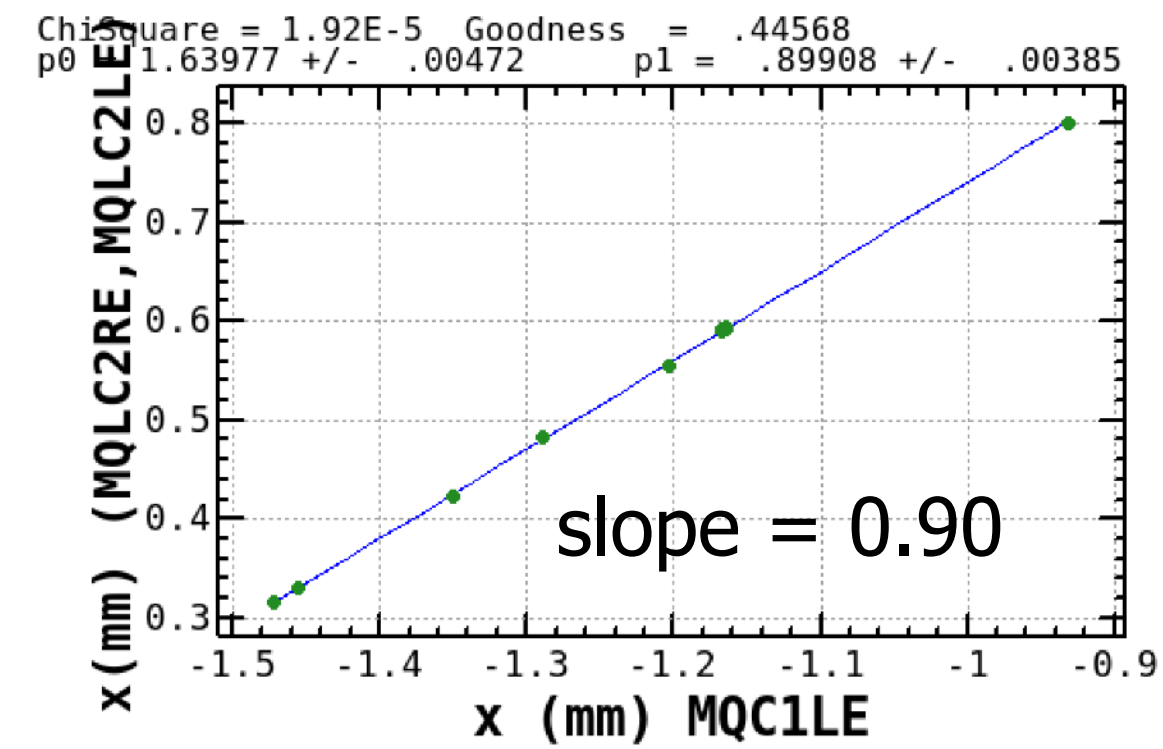
Vertical



(A) MQLC2 - MQC1

QC1LE K1: +3.15 %
QC1RE K1: -3.15 %

(B) MQC2 - MQC1

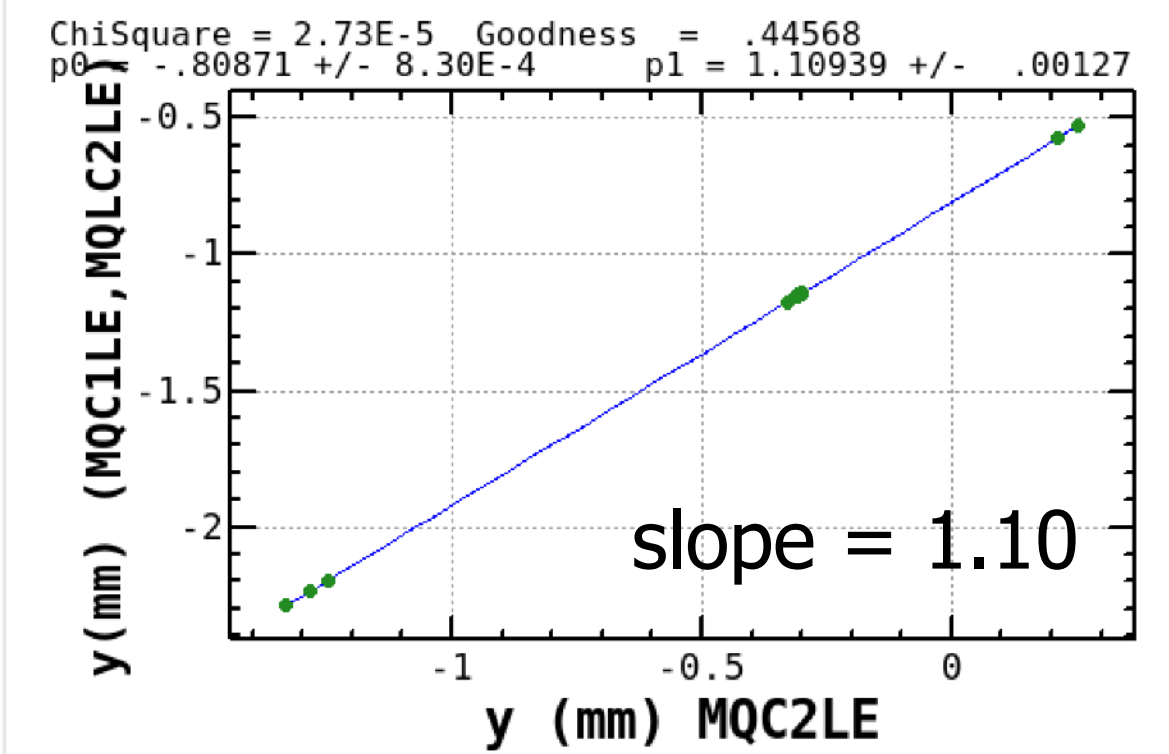
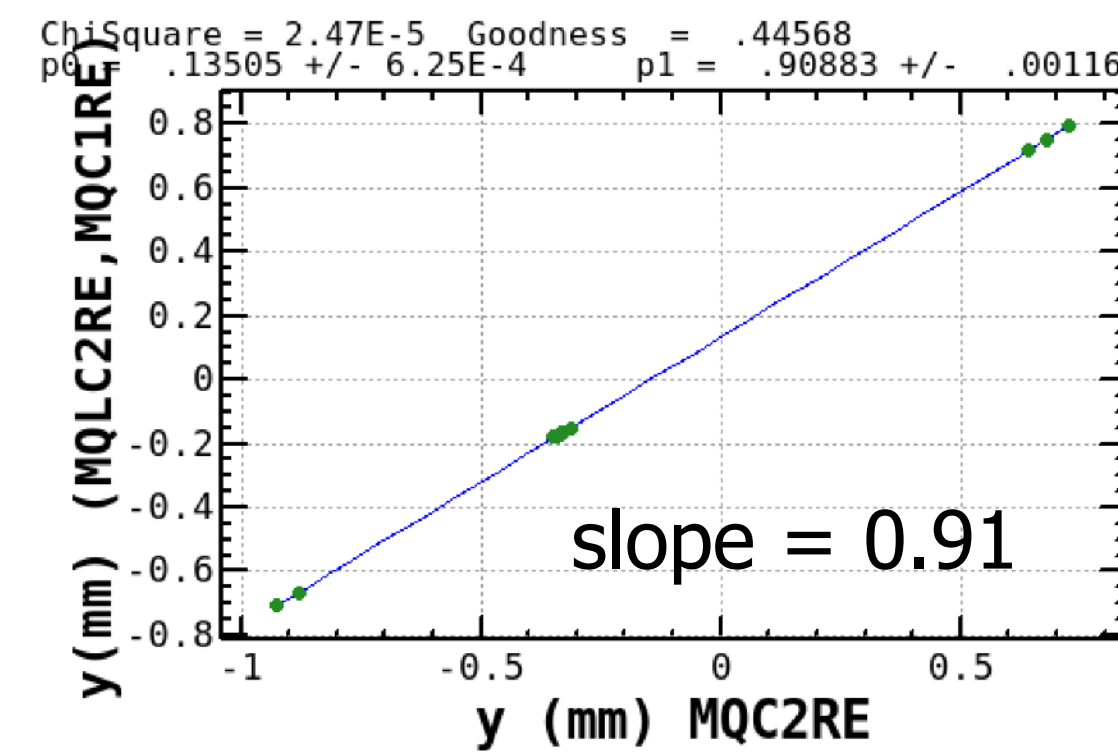
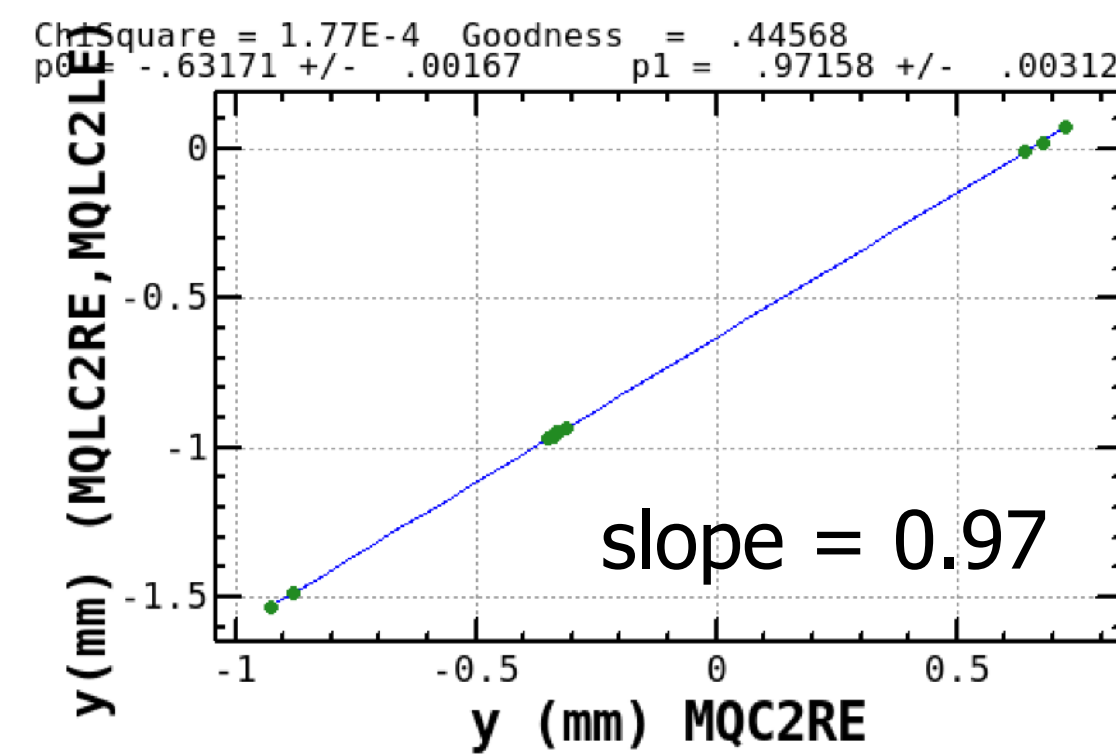
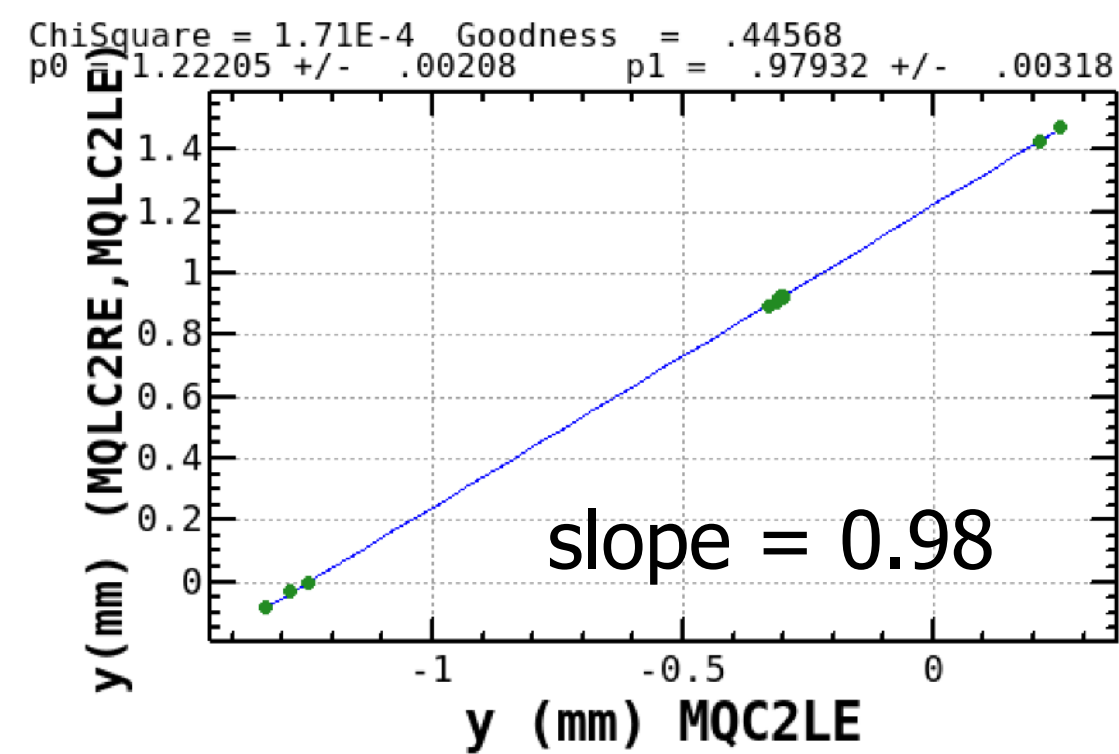
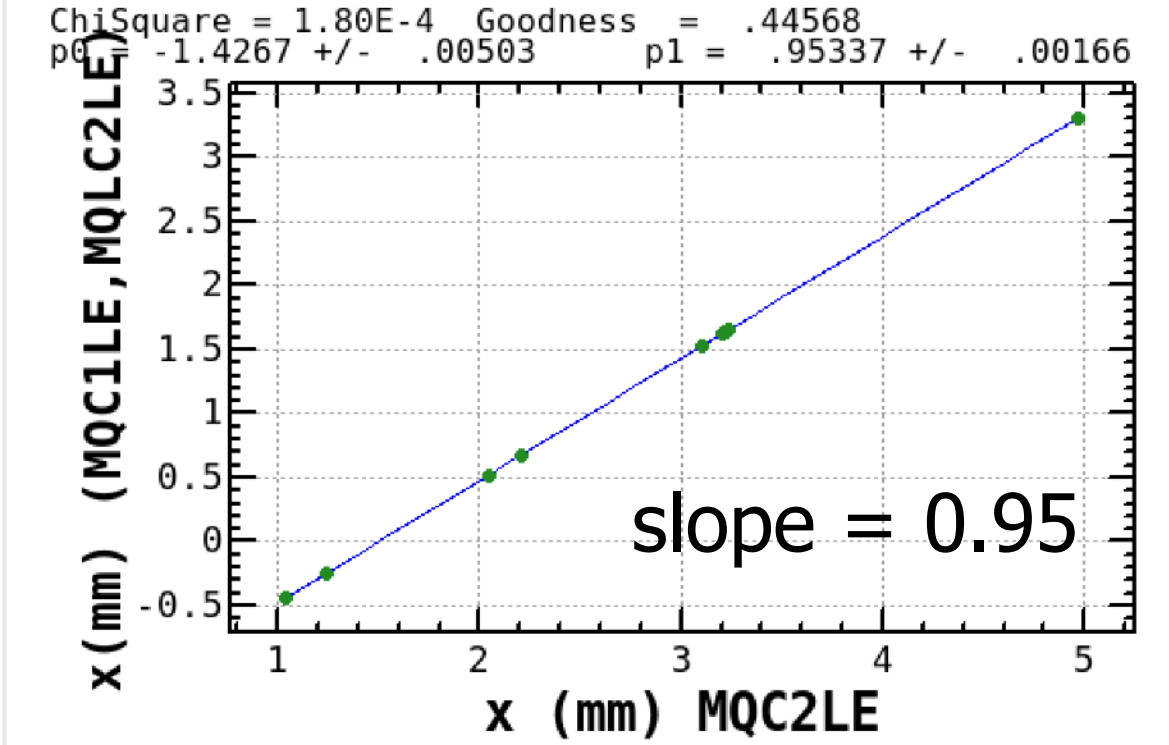
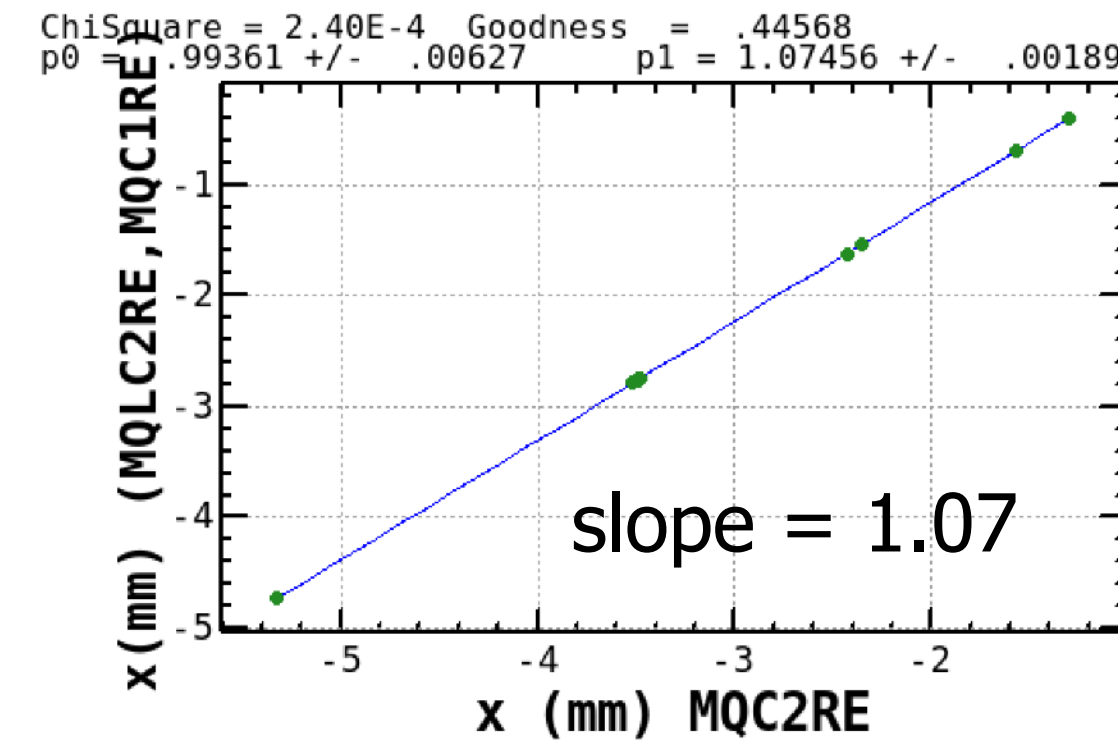
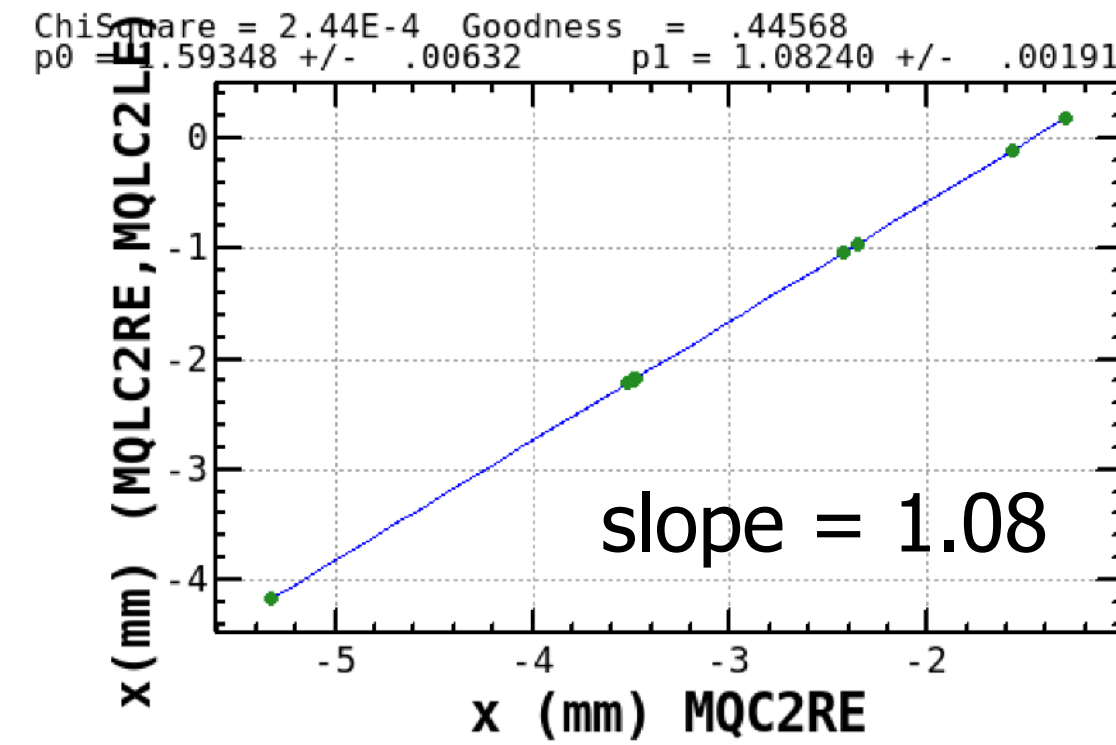
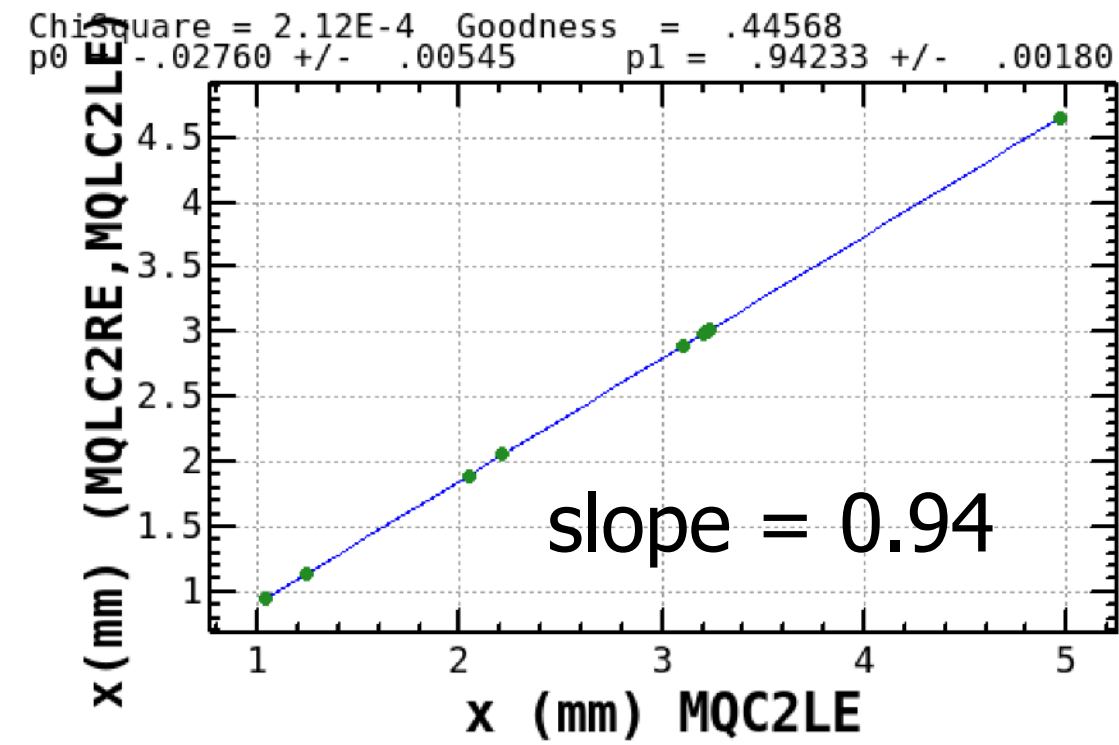


LとRのバランスが少し崩れる。

(C) MQLC2 - MQC2

QC1LE K1: +3.15 %
QC1RE K1: -3.15 %

(D) MQLC2 - MQC2 -MQC1



- QC1E BPMs is estimate by BPMs at QLC2LE and QLC2RE and others.
- The vertical responses between QC1E BPMs and estimations by QC2LE and QC2RE BPMs are quit different. The factor is 2.13 for QC1LE and -0.27 for QC1RE.
- K1 deviation for QC1LE and QC1RE are opposite direction. Where is the waist position ?
 - Twiss parameters(α, β) need information of the whole ring.

	K1 model (1/m)	K1 modified (1/m)	$\Delta K1$ (1/m)	$\Delta K1/K1$
QC1LE	-1.154623911	-1.190994564	-0.036370653	3.150E-02
QC1RE	-1.086257073	-1.052039976	0.034217098	-3.150E-02
QC2LE	0.654916862	-		
QC2RE	0.557860643	-		