

Fluorescentric does more than real-time PCR assay development:

- **Chemistry to Improve Genotyping Applications with FastStart Taq (GES)**
- **Probe Assay Optimization Dye (PIOTA)**
- **Reverse Engineering Inhibitor (REI)**
- **TaqMan Genotyping by Melting Curves**
- **Novel Amplification Chemistry (DFA)**
- **Novel Template Lysis Buffers (DNA and RNA preparations)**

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Improved Simultaneous Genotyping and Quantification

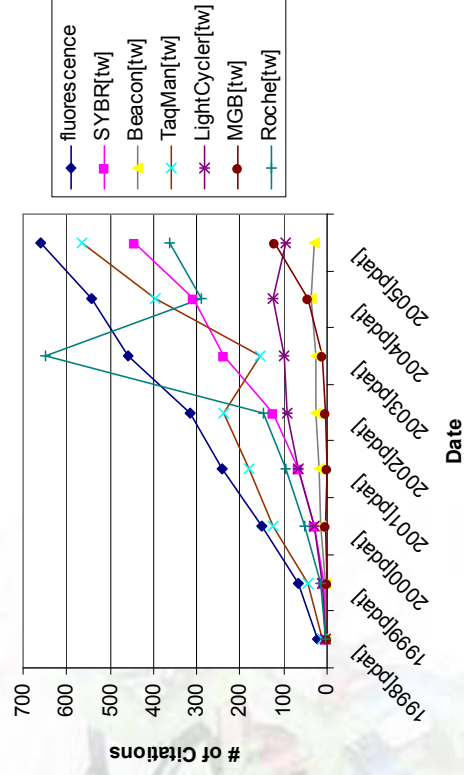
With Hot-Start Taq Polymerase and Roche
HybProbe Chemistry



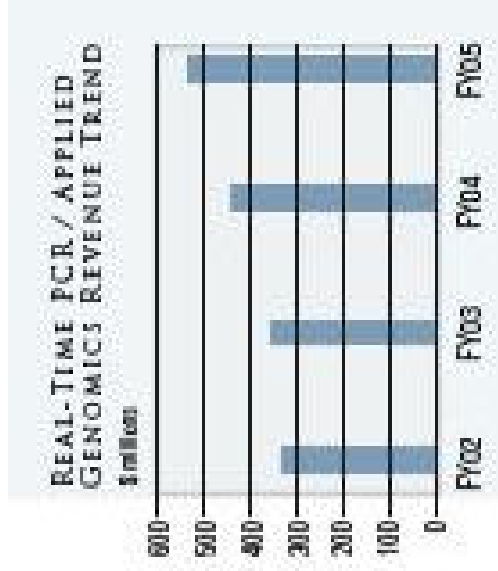
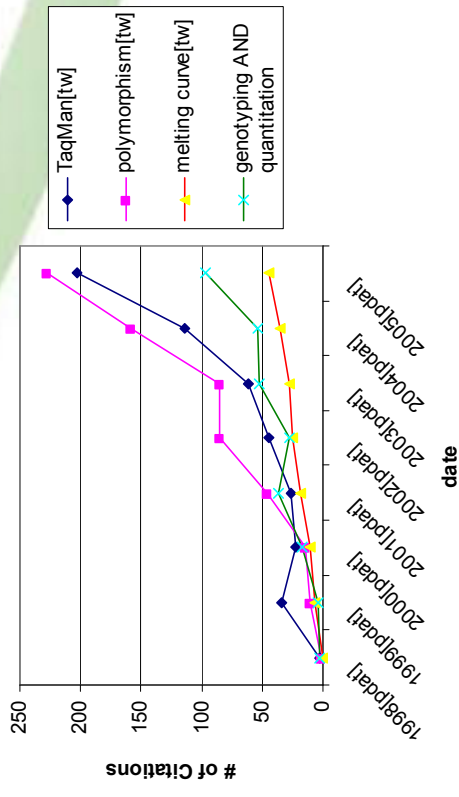
GES an example of Fluorescentric's Chemistry
Innovation

Real-Time PCR & Genotyping

Growth of Real-time Chemistries



SNP DATA

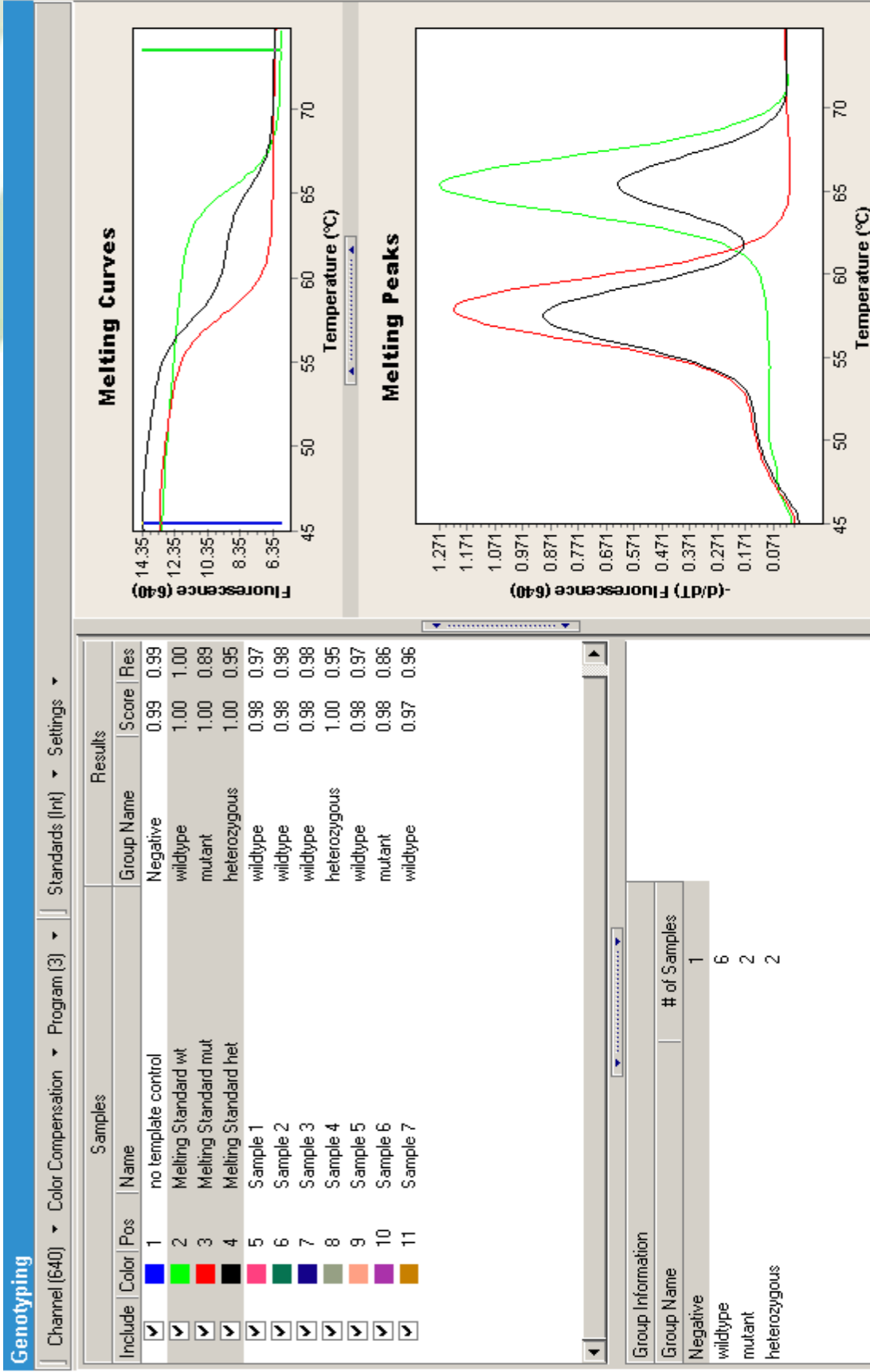


Introduction: How To Quantify and Genotype WELL in the Same Assay?

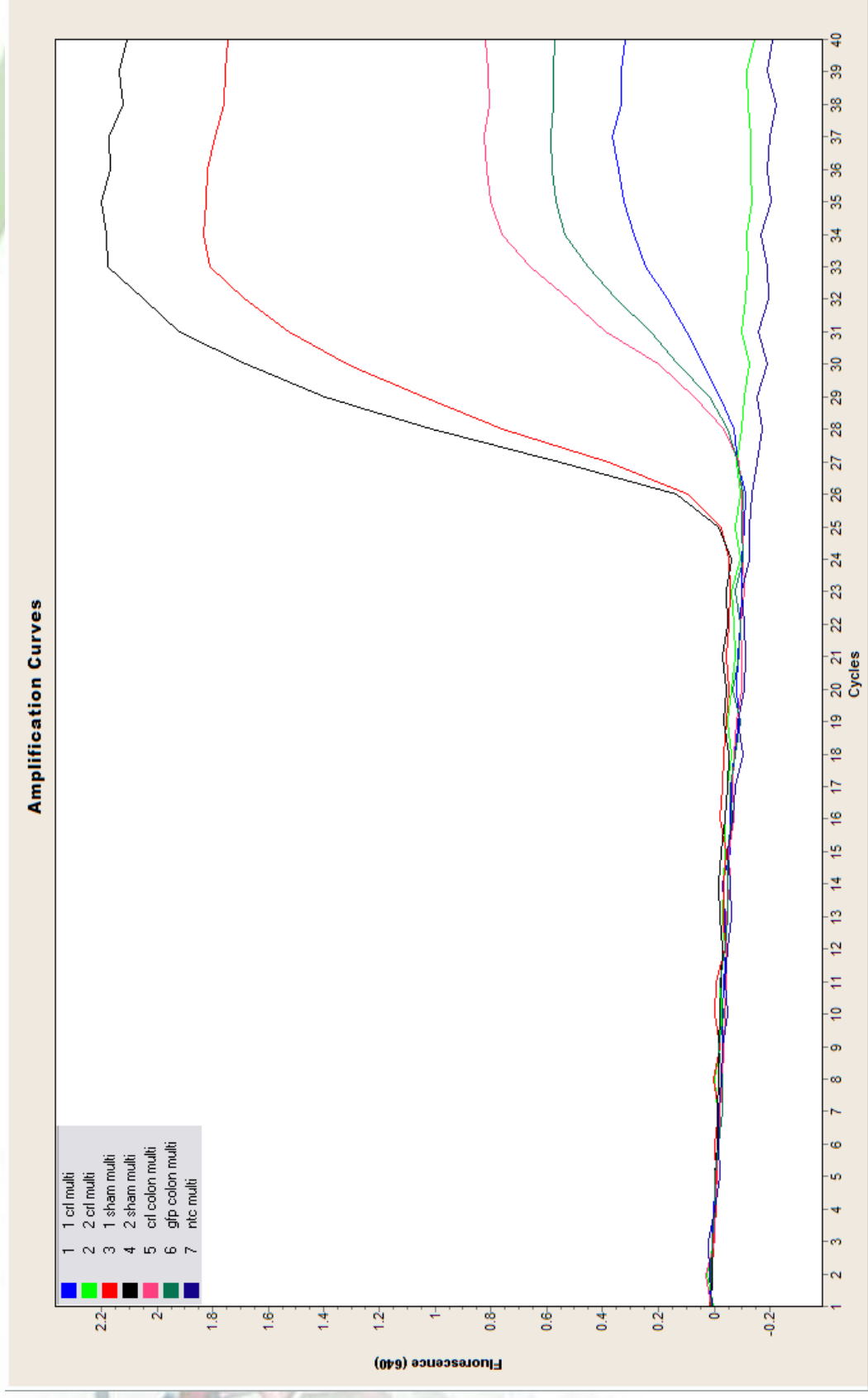
- Quantification and Genotyping
 - Separate designs required to produce high quality results
- Current alternatives can be costly:
 - single design with extensive optimization and re-designs
 - Two probe approach (i.e. TaqMan, ineffective for both)
 - specialty enzymes (i.e. Exo- Taq)
 - multiple reactions/sample

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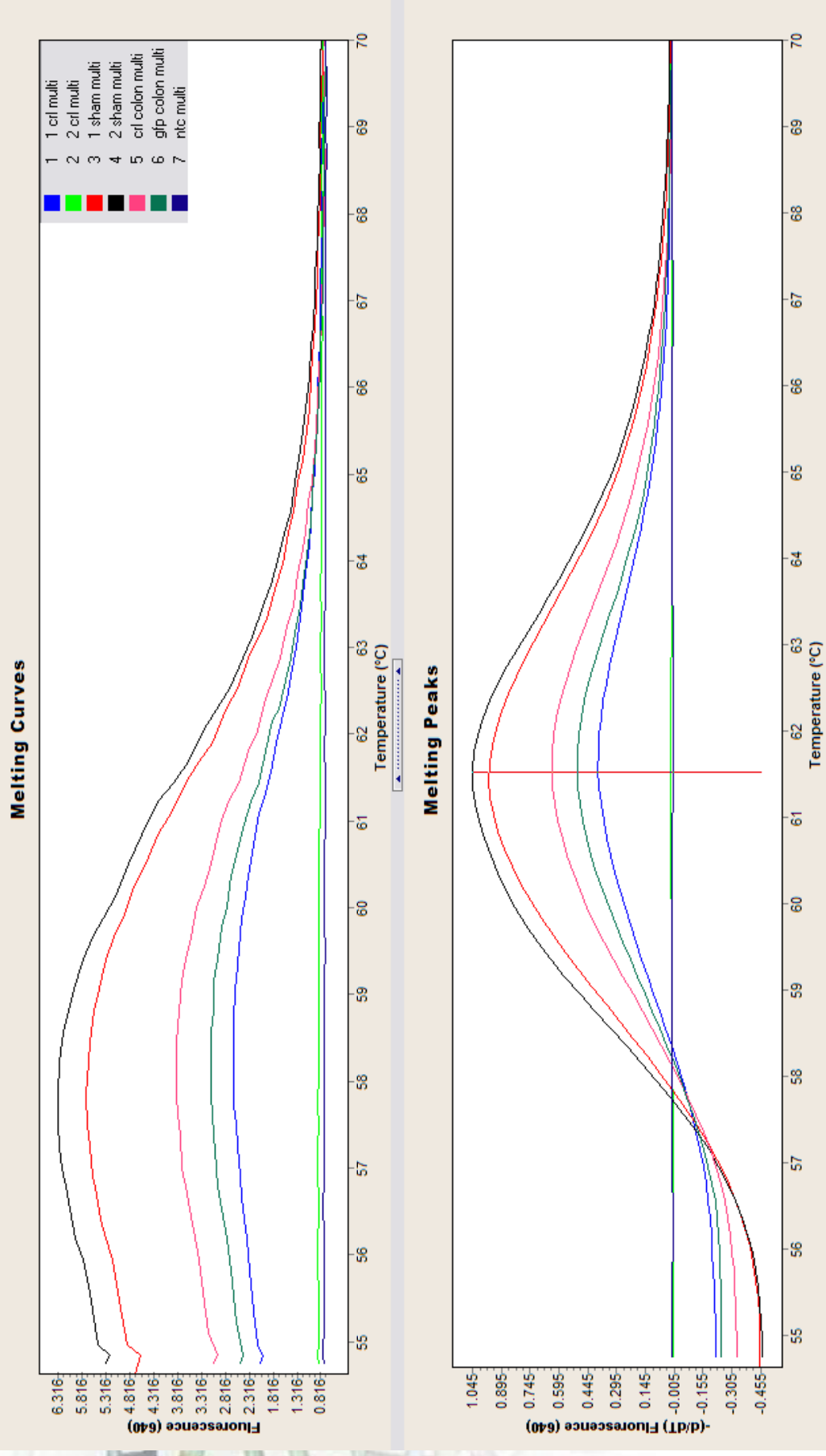
LC Red Genotyping—Beautiful!



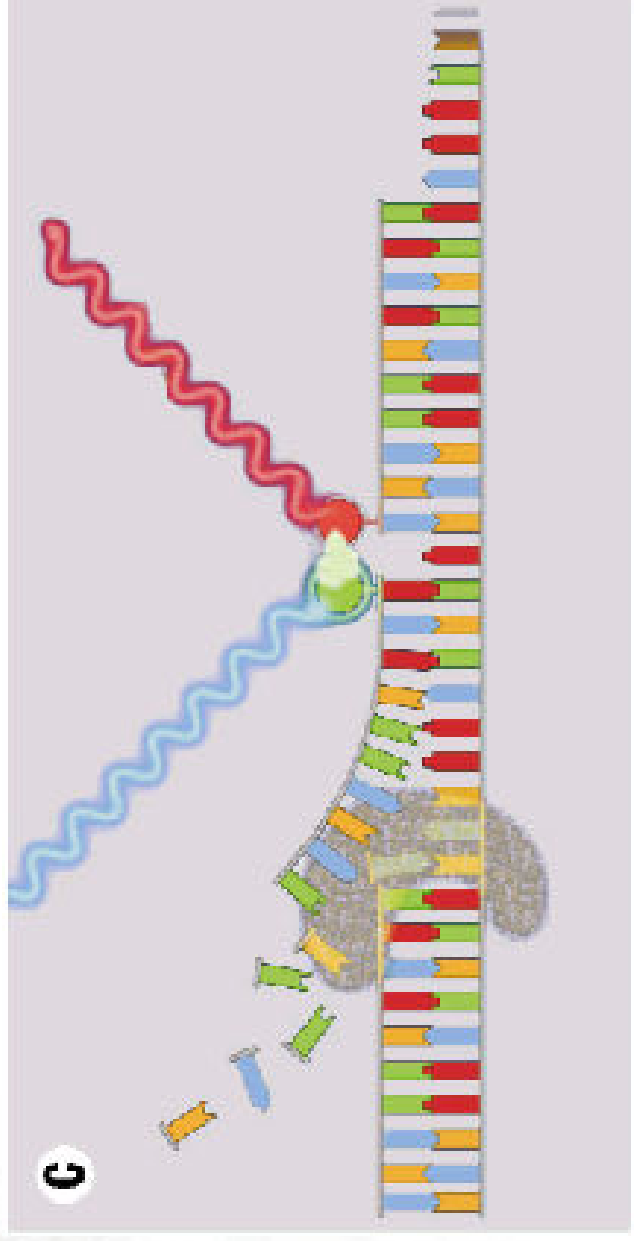
Quantifying AND Genotyping with One HybProbe Set: Quantification—OK



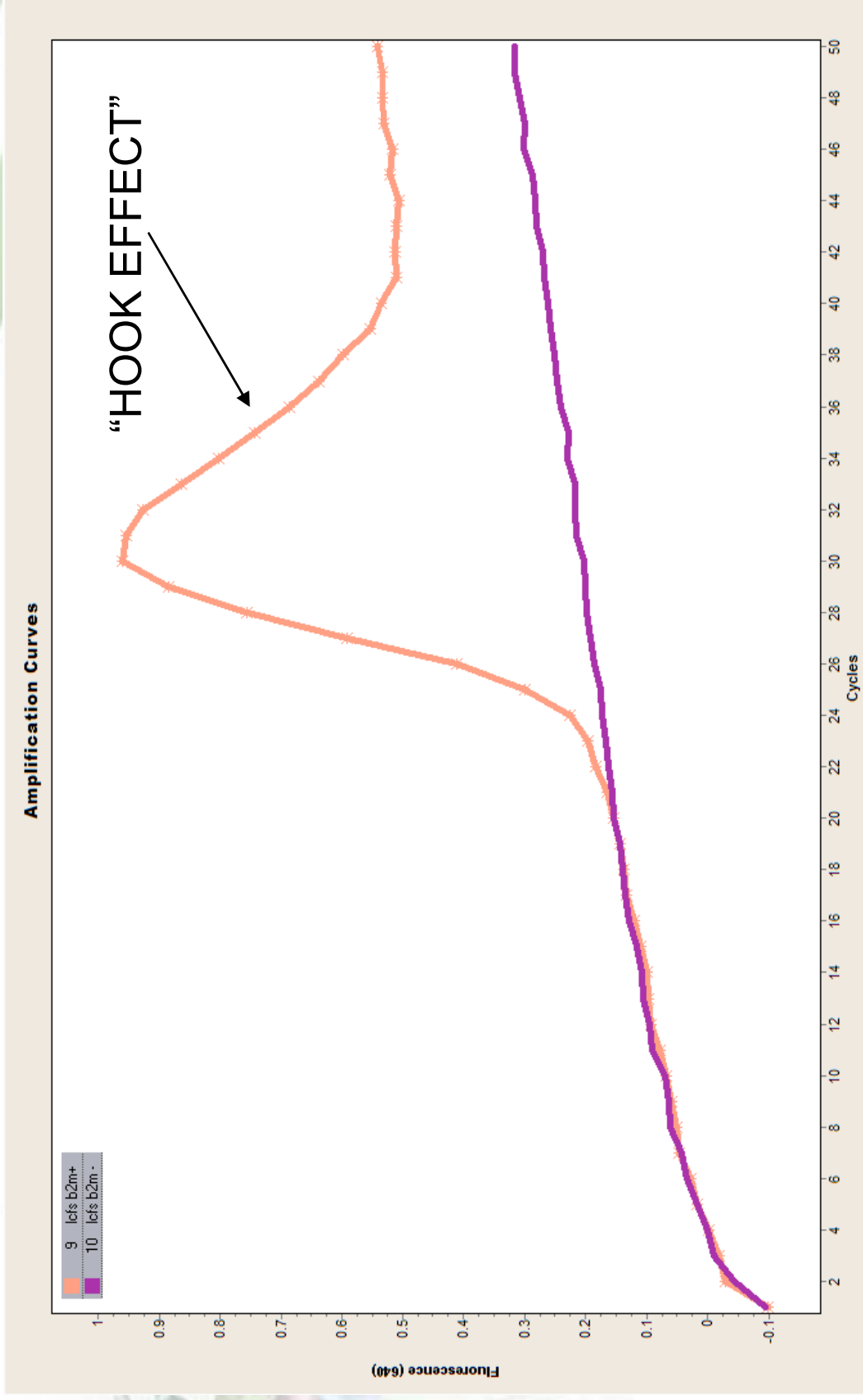
Genotyping—OK!



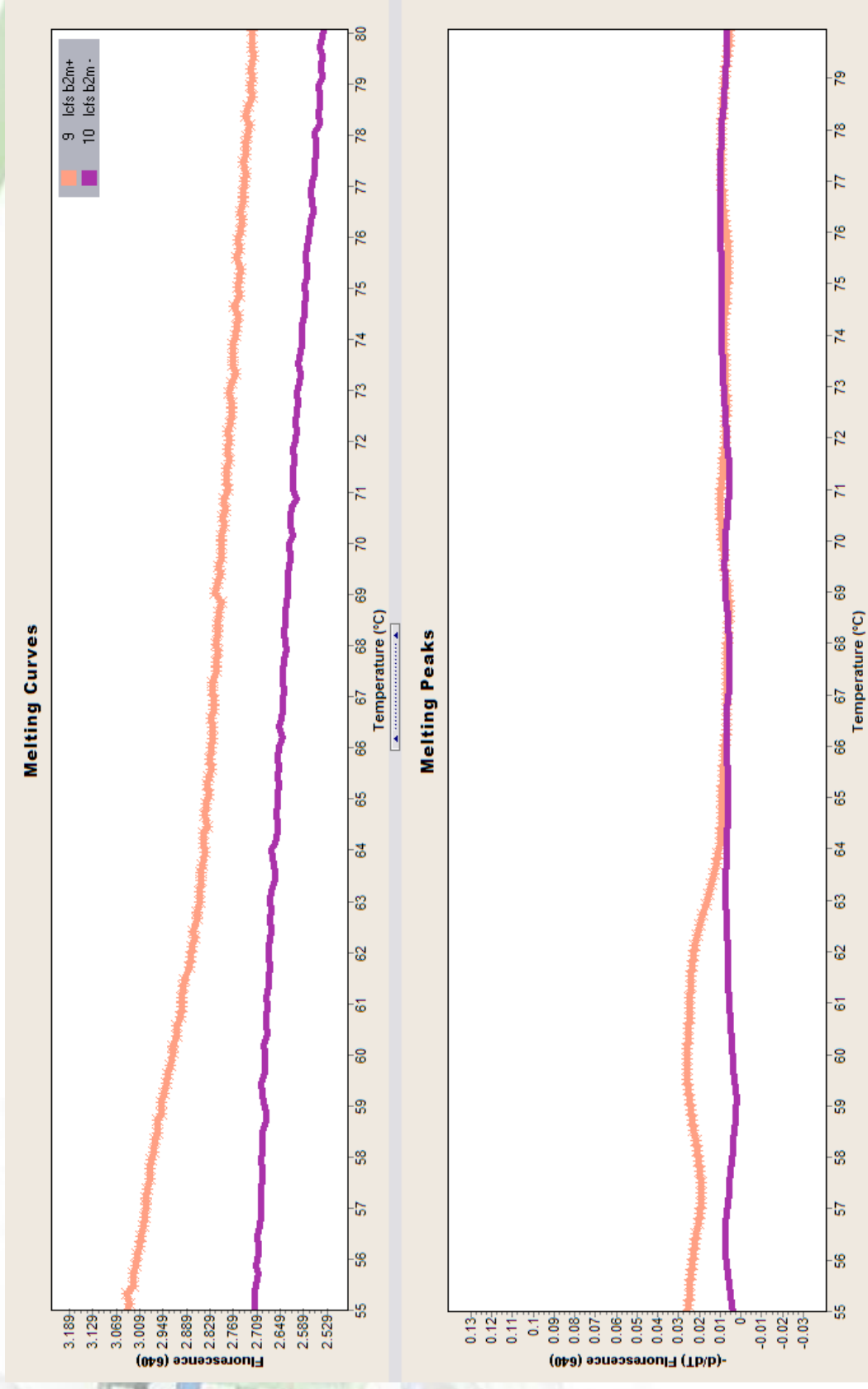
Fundamental HybProbe Assumption for Genotyping



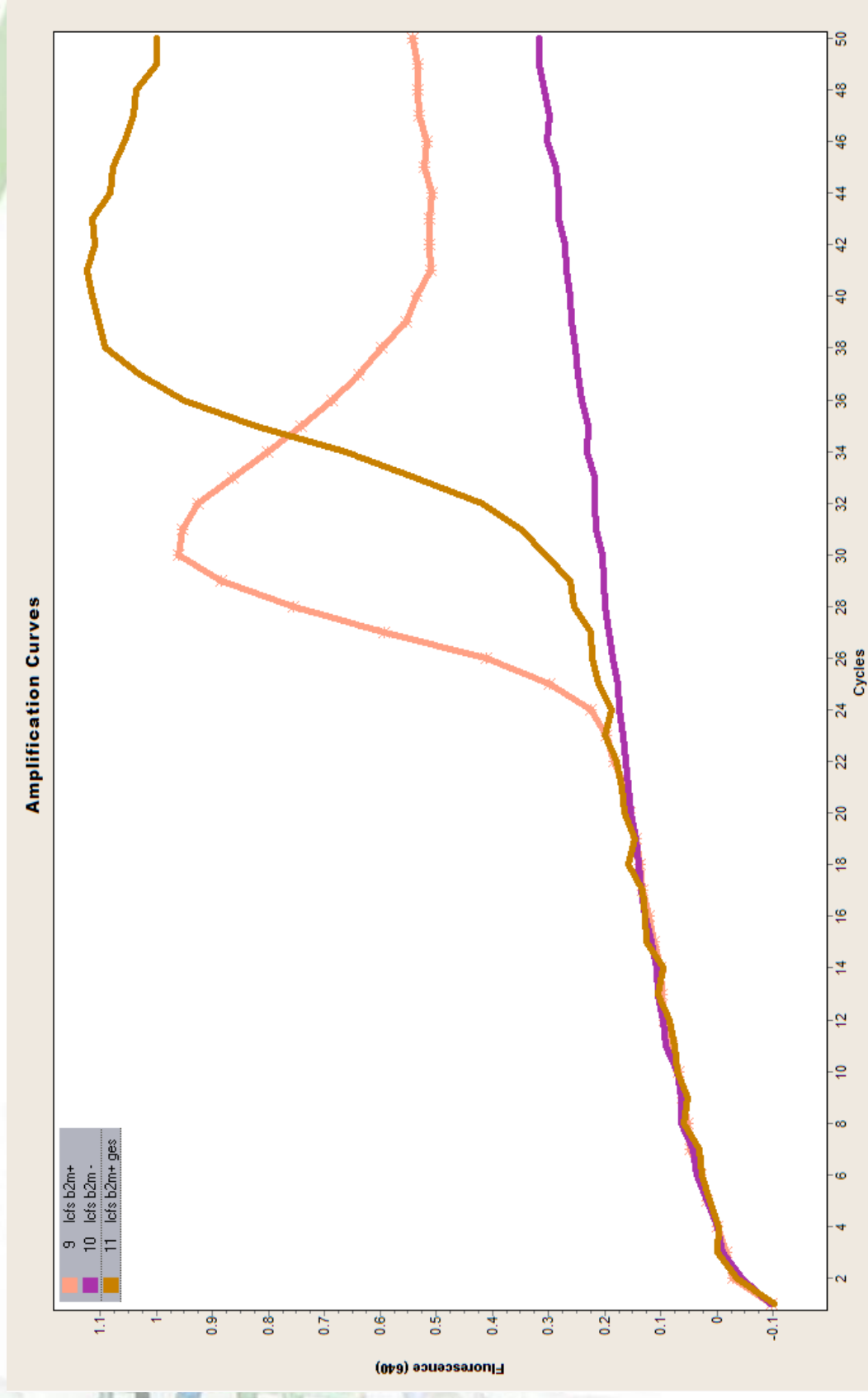
What Happens to Genotyping Now?



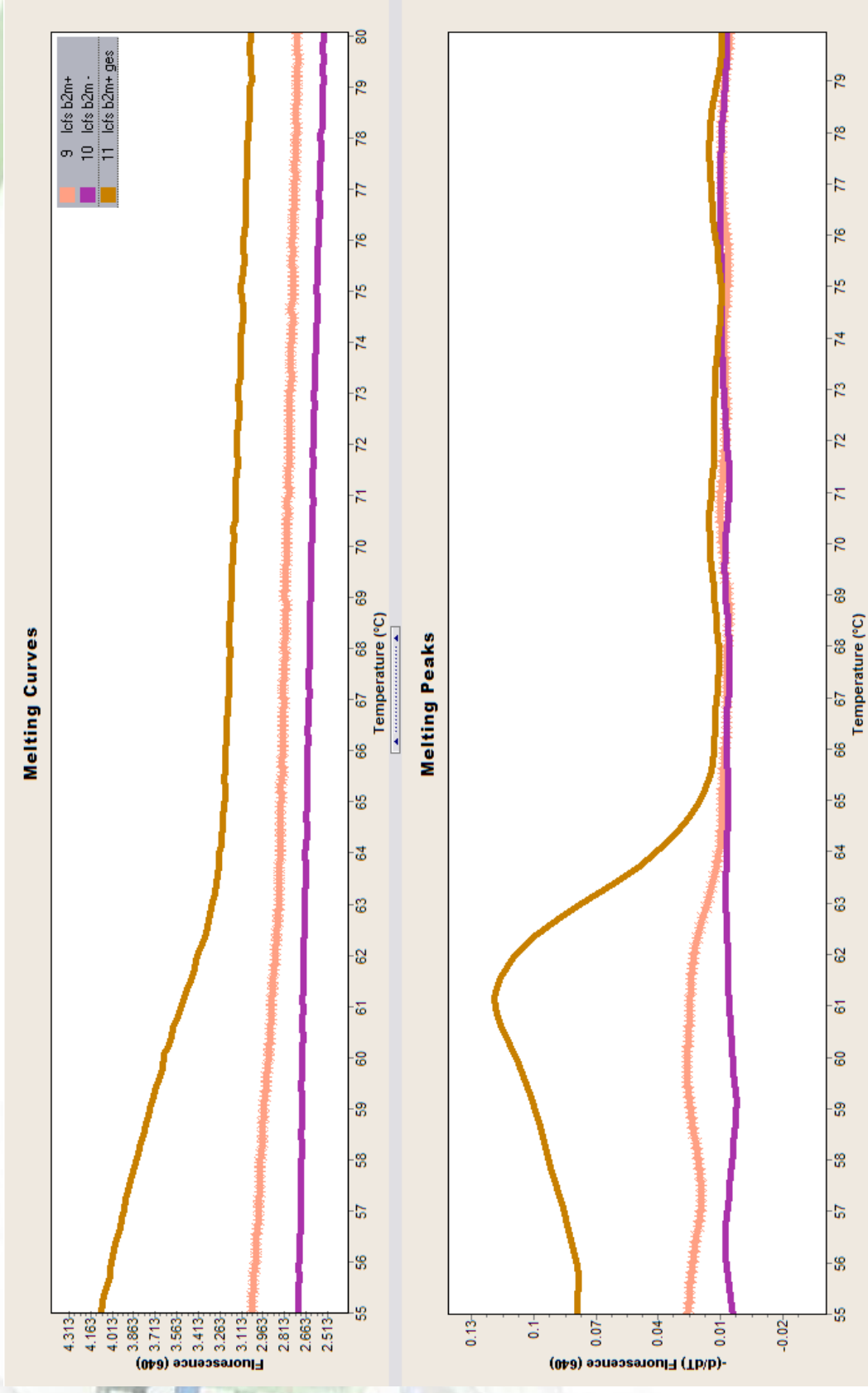
Melting Curves and Peaks Like This!



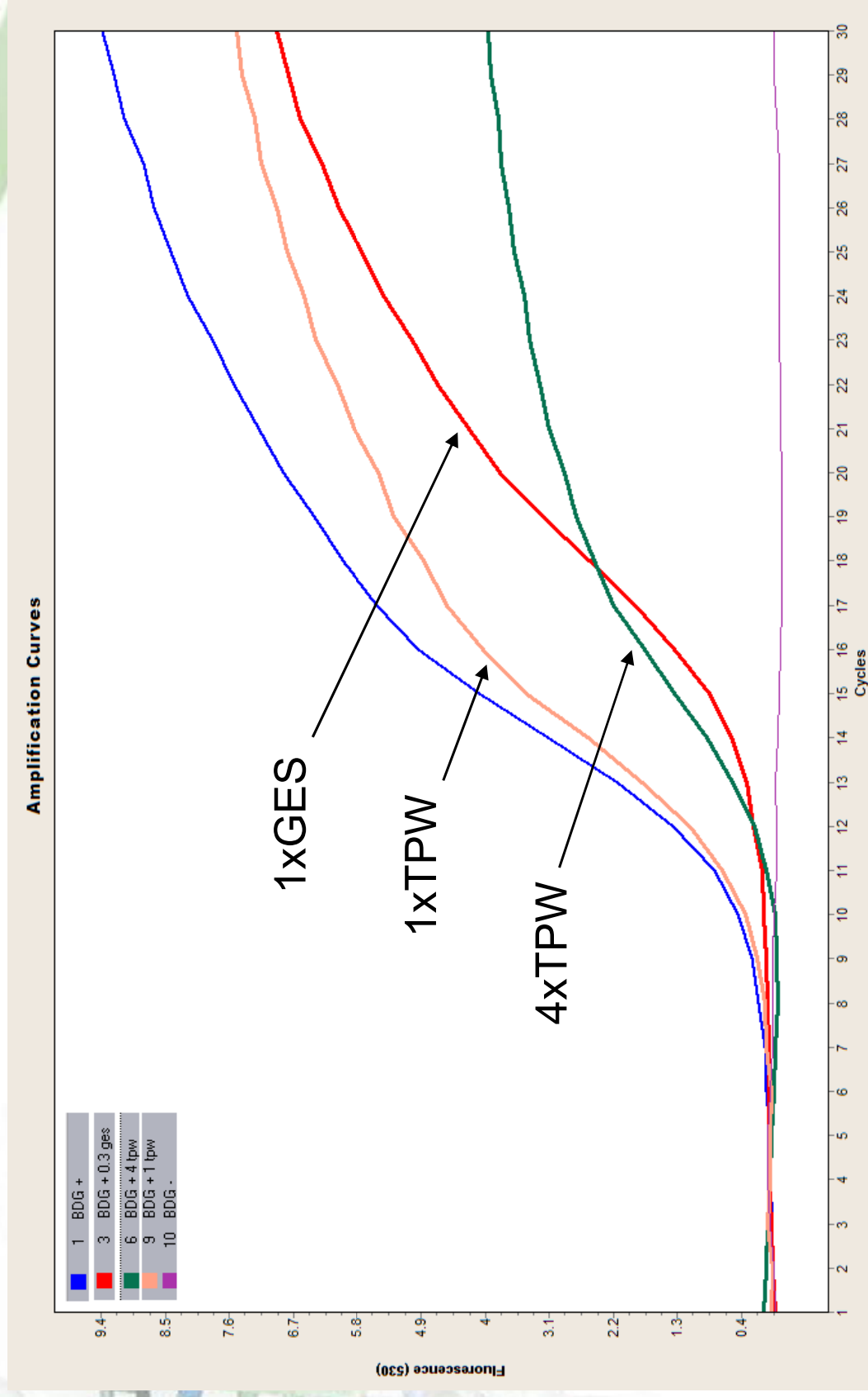
If the Hook Effect Can Be Reduced Then What?



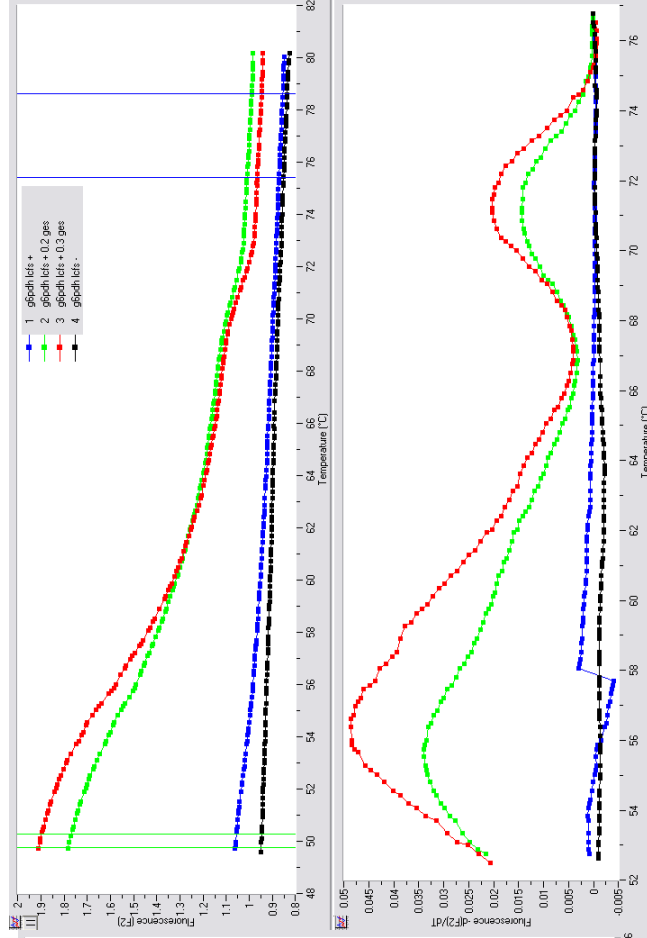
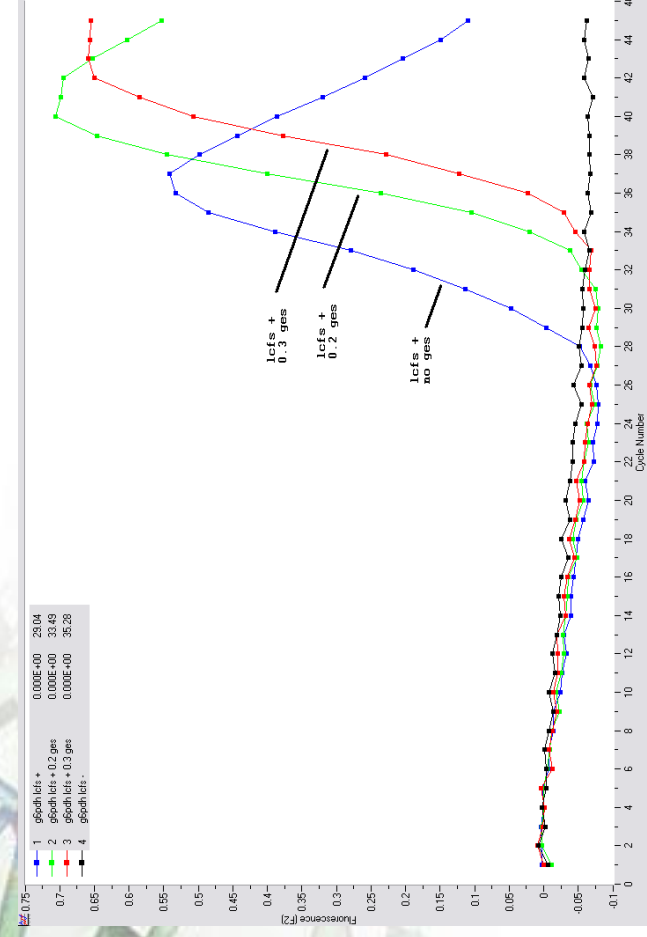
Stronger Signal and Better Peak!



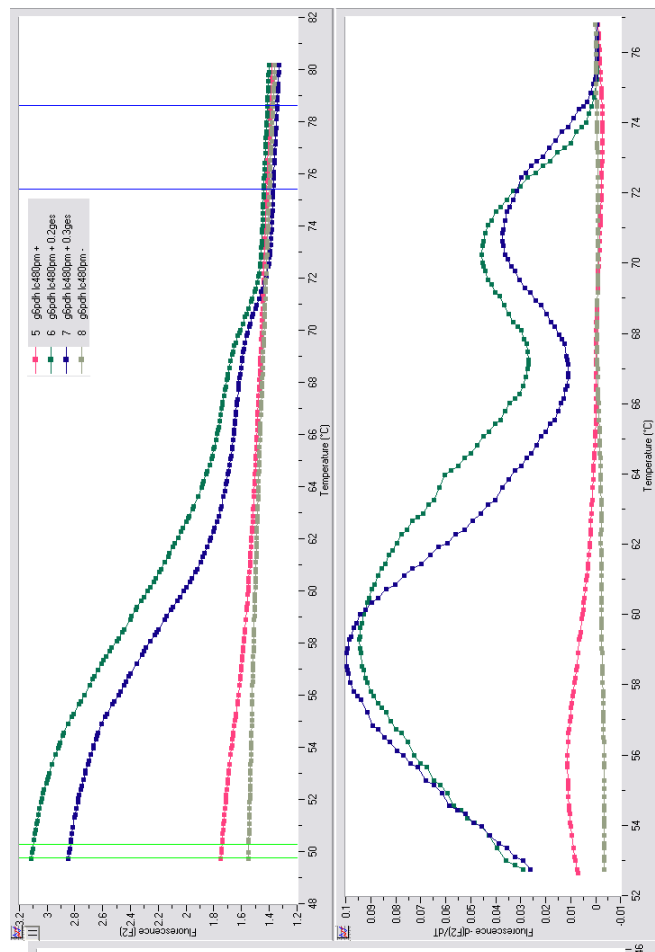
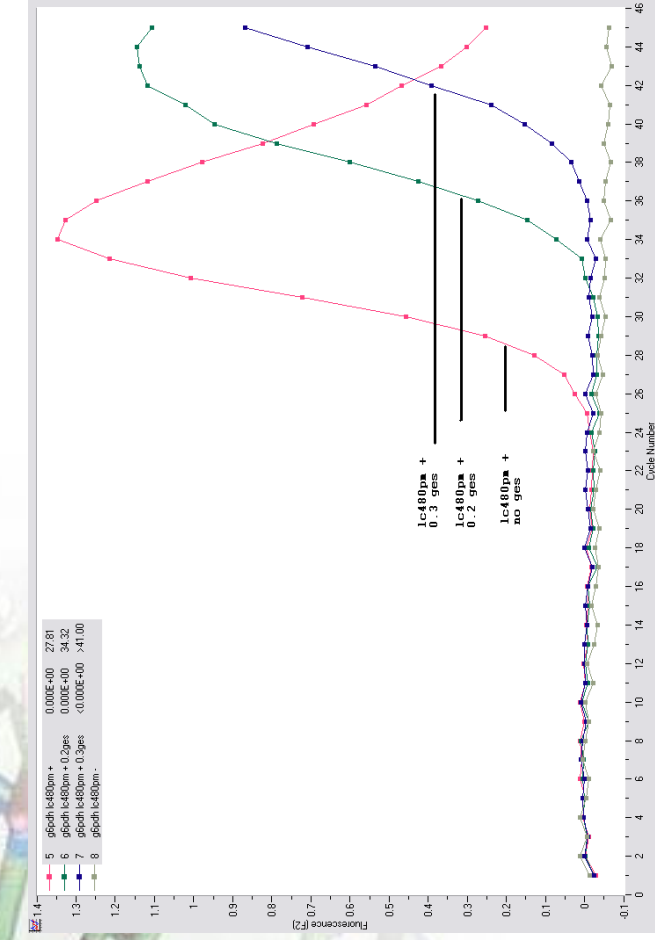
Effect of GES vs. TTPW with Taqman Probes



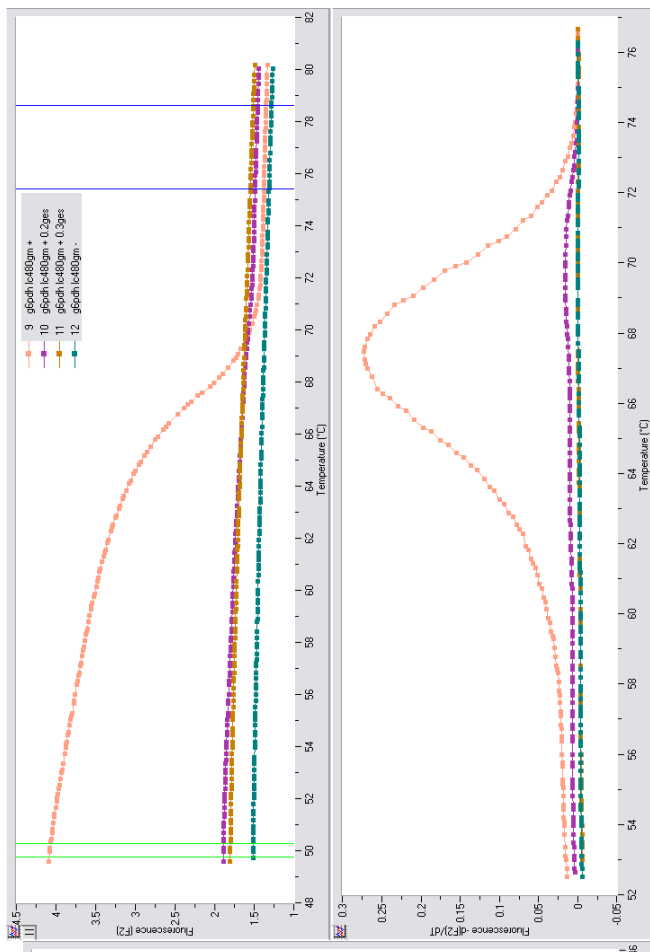
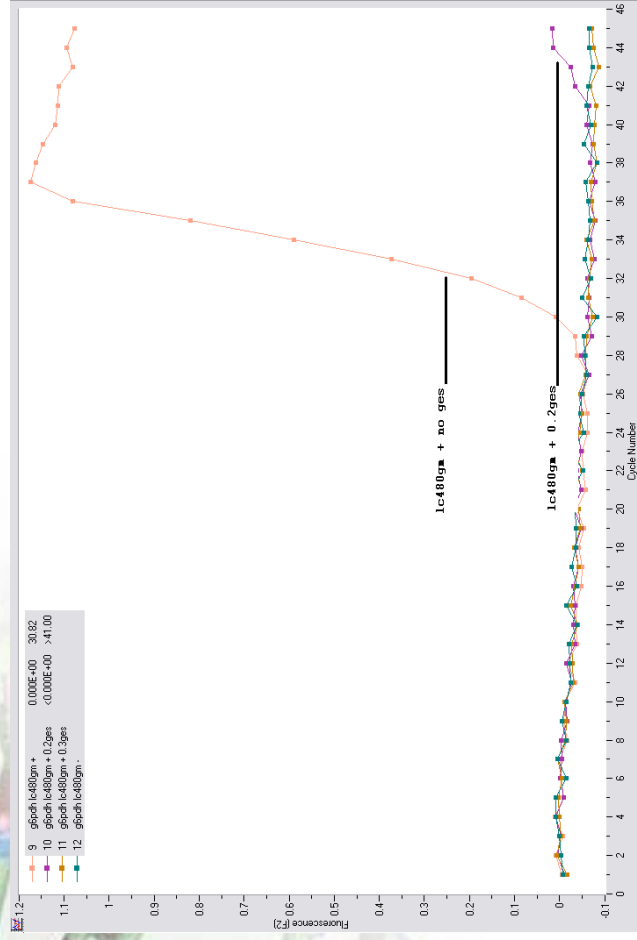
LightCycler FastStart HybProbe Master Mix with HybProbe



LightCycler 480 Probe Mix with HybProbe



LightCycler 480 Genotyping Mix with HybProbe



Survey of Existing Real-Time PCR Users

- LightCycler User Group Meeting (New Zealand, October 2006)
 - 60% Say GES : Useful, need to identify applications
 - 6% Say GES: Essential and have applications
 - 30% HybProbe Users
 - ~70% are TaqMan Users AND Sybr Users
 - All are potential customers

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Nucleic Acids Research Group

Survey 2004

- 67% Use TaqMan
- 74% Use SYBR
- 15% Use Molecular Beacons
 - Presumably doing both Genotyping and Quantification
- >27% are Genotyping
- 100% are Quantifying

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ONLY <1% HybProbe Users