

Parametric Test (spot measurements):

Determination of parameters to describe and monitor a semiconductor production process

measurement type: parameters to describe the process

current-voltage (IV): gain, threshold voltages, delta_w, delta_L etc.

capacitance-voltage (CV): doping concentrations and profiles, oxide and metal impurities, film thickness, carrier lifetimes etc.

Modeling (sweep measurements):

Determination of modeling parameters to achieve a fit of mathematical curves to measured data

measurement type: parameters to fit the model curves to the measured curves

<u>MOS</u>	<u>bipolar</u>	<u>GaAs</u>
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<u>current-voltage (IV):</u>	VTH, U0, KP...	IS, NF, BF...	IS, NF, VTO, BETA...
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<u>capacitance-voltage (CV):</u>	CJ, MJ, CGDO...	CJO, MJ, VJ...	CGSO, CGDO...
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<u>S-parameters:</u>	ELM...	TF, ITF, VTF...	TAU, A5...
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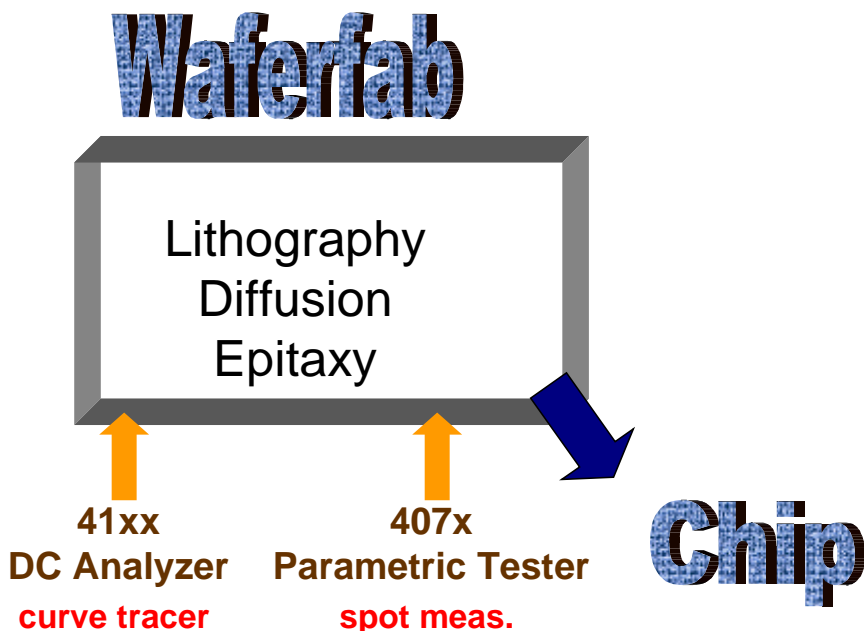


Figure 1: Process Control Measurements during chip manufacturing.