

BURLE Electro-Optics

Sturbridge, MA

Introduces

ELECTROGENTM

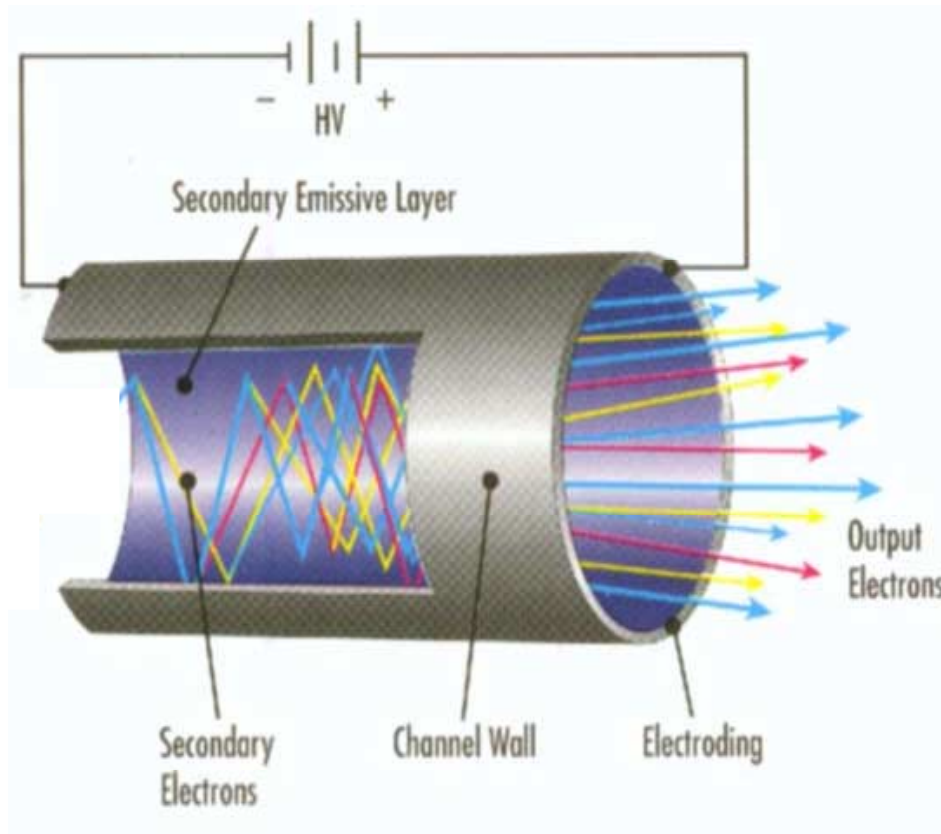
Electron Generator Arrays

What Is An ELECTROGEN™ ?



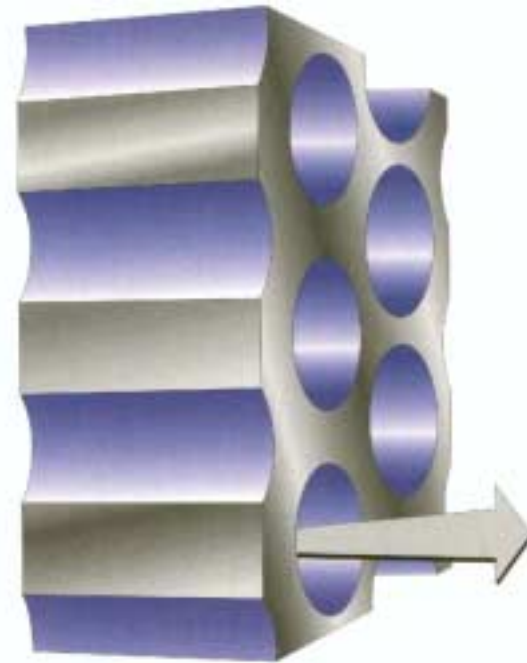
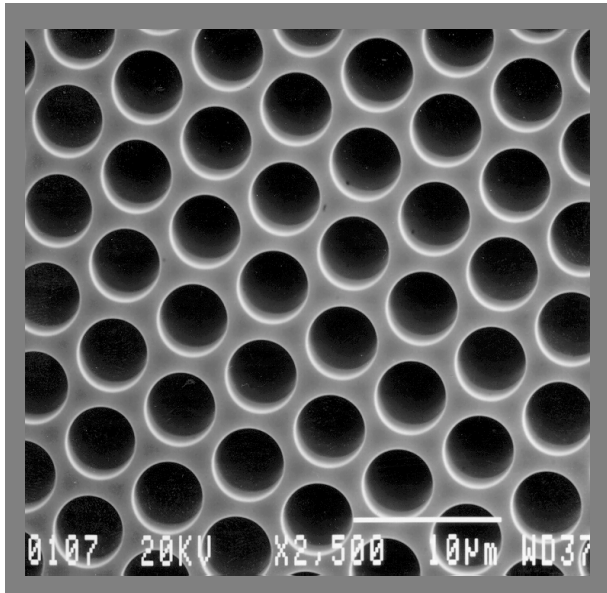
- **An ELECTROGEN™ Electron Generator Array is a revolutionary new electron source that produces an electron flux that is tunable, shaped, durable and exceptionally stable.**

Theory of Operation



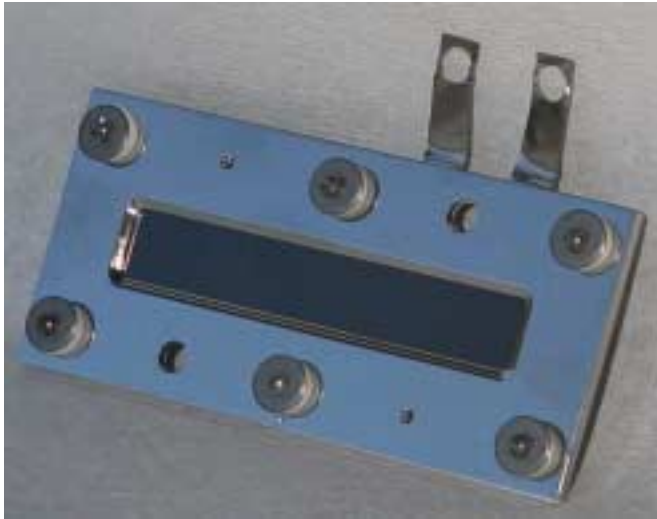
Electrons are spontaneously generated and amplified inside the channel when voltage is applied.

Theory of Operation



Millions of channels are fused into virtually any shape and size to provide a uniform electron flux.

Various Format Electron Generator Arrays



50 x 8 mm



40 mm



11 x 12 mm



18 mm

ELECTROGEN™ Advantages I



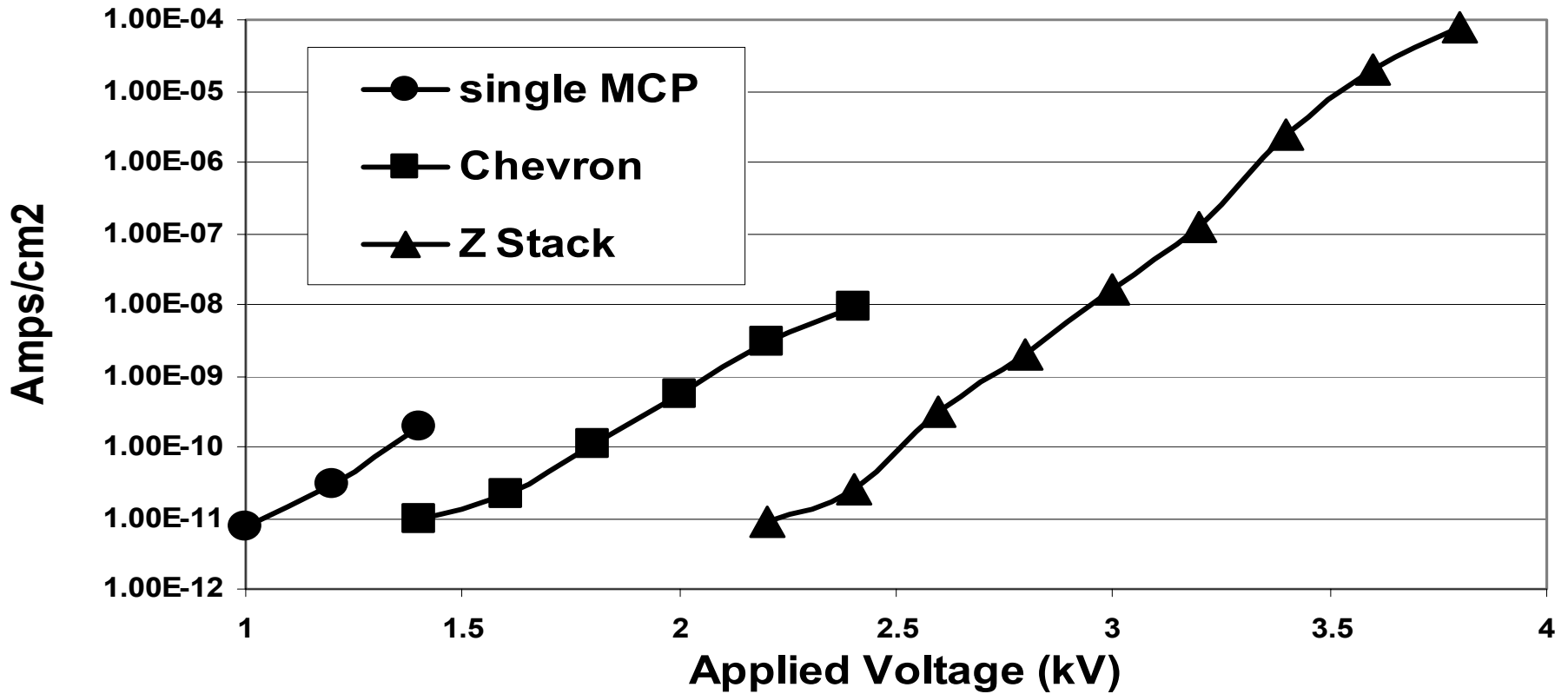
- **“Cold” Ionization Source**
- **Large Emission Area**
- **Parallel Beam, Not Sensitive to Field Strength Changes**
- **High Density, Uniform Emission Pattern**
- **Fine Emission Level Control**
- **Won’t Burn Out, Durable**
- **No Photon Noise**

ELECTROGEN™ Advantages II

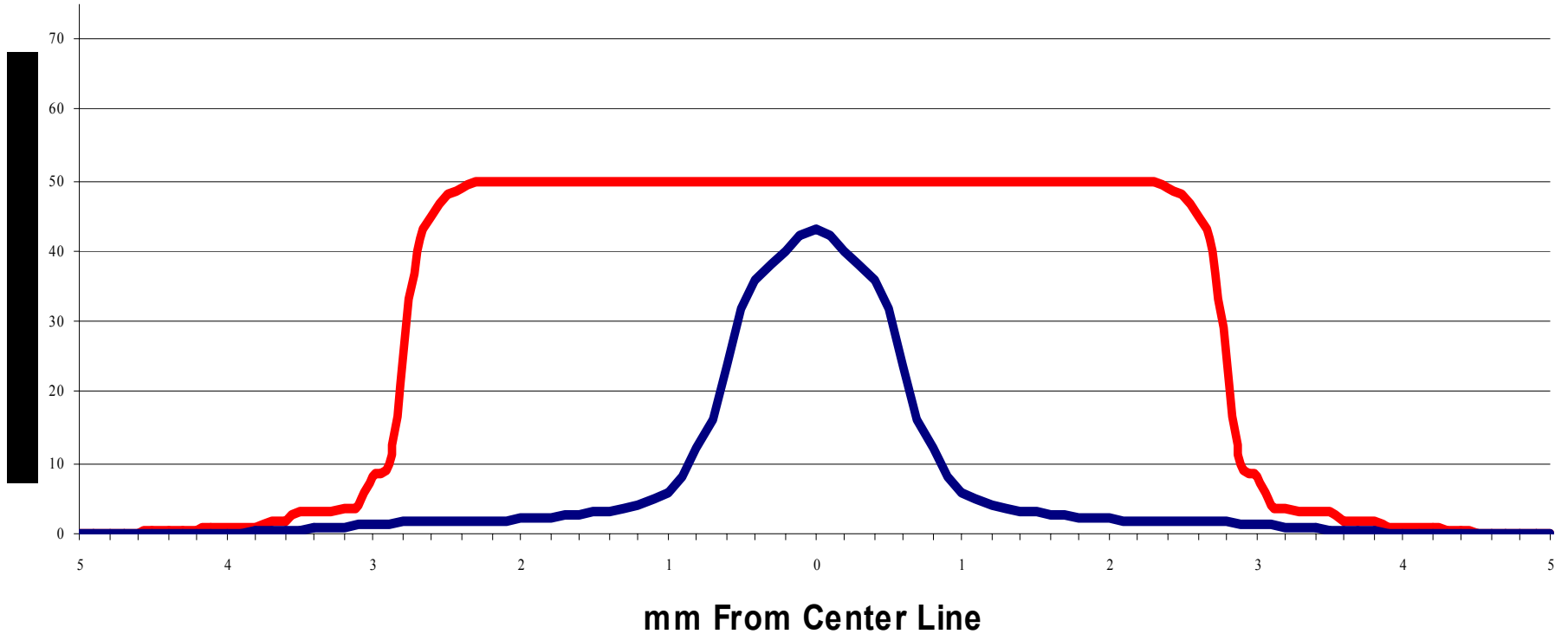


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- **Low Maintenance, Frequent Cleaning not Required Because Of Cold Ionization**
 - **No Heat-Up/Stabilization Time Required**
 - **Bi-Directional Emitter**
 - **Low Power Consumption (e-gun 38 W vs EGA 0.024 W)**
 - **Simple Single Voltage Supply Design**
 - **No Raster Scanning Electronics Required**

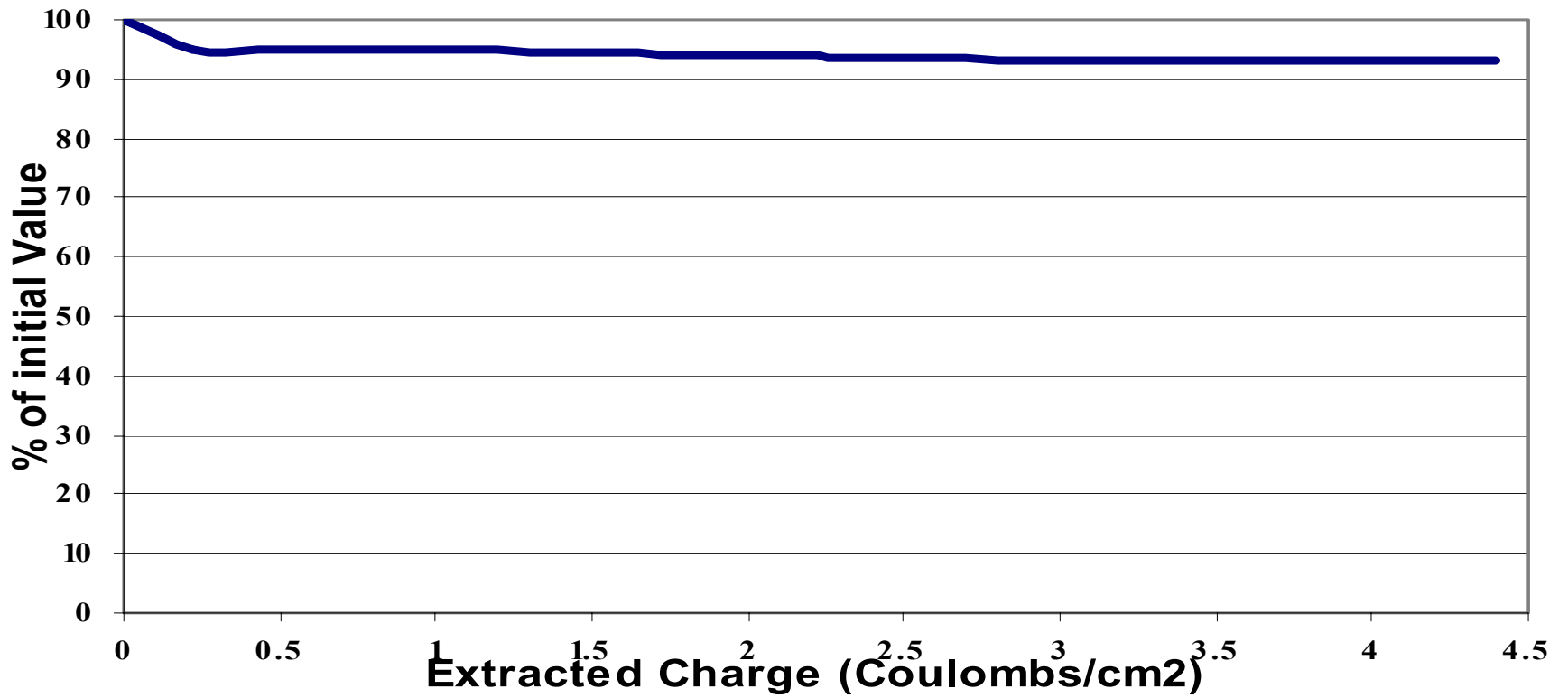
ELECTROGEN™ Output



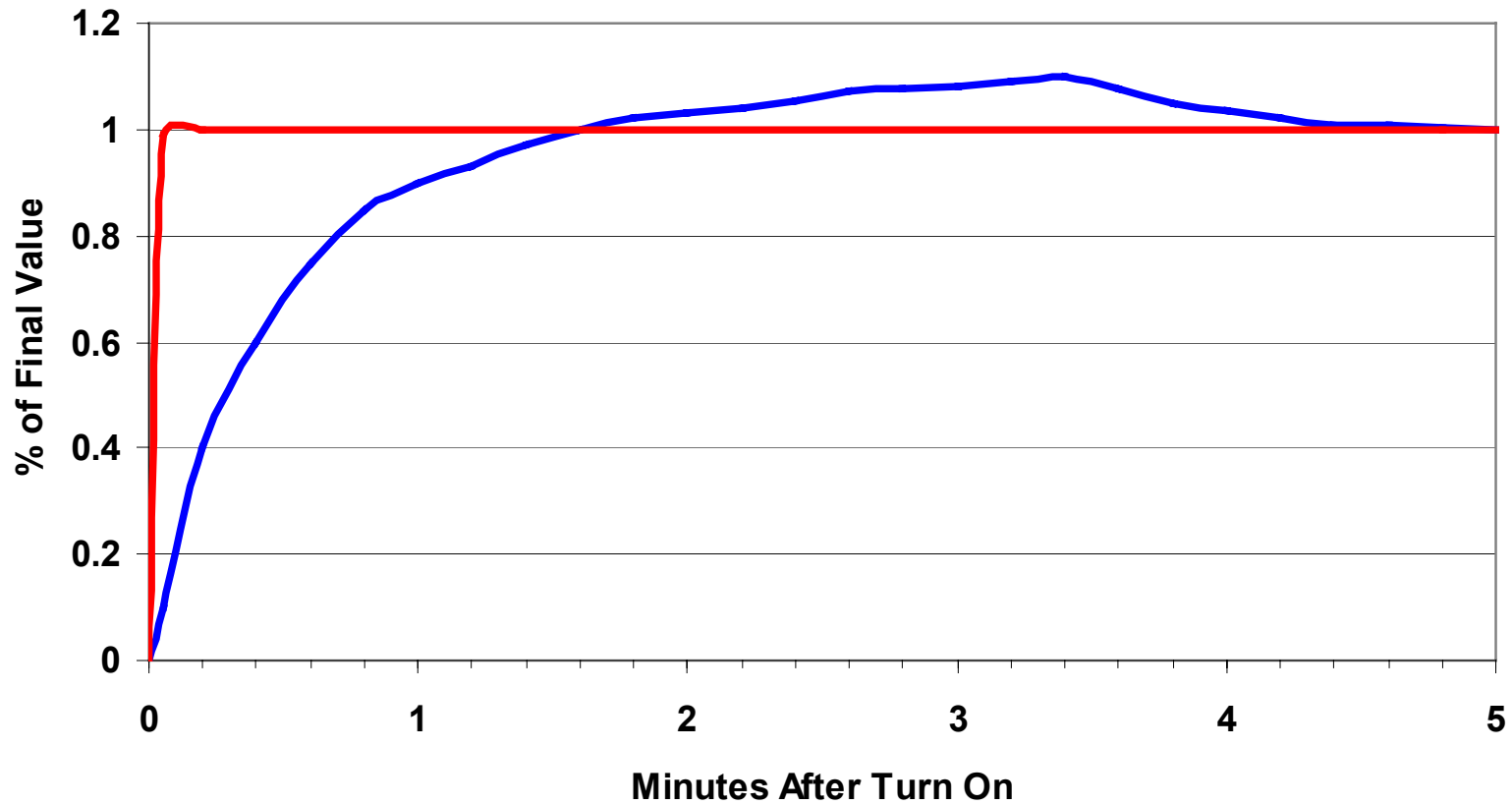
ELECTROGEN™ Flux Uniformity



ELECTROGEN™ Stability



ELECTROGEN™ Turn-On



Specifications

Emission Area	3 mm -150 mm dia
Electron Flux Density	0 to 50 $\mu\text{A}/\text{cm}^2$
Power Supply Voltage to	3600 V
Current Required	44 mA
Max Bake Temp	300 °C
Max Operating Temp	200 °C