E-CAT QX DEMO

Stockholm 24 November 2017

PROGRAM

- Introduction and description of test protocol   *Mats Lewan*
  (journalist, speaker, author of 'An Impossible Invention.')

- Demo and measurements   *William S. Hurley*
  (dir. Senior Project Engineering, Los Angeles Refinery, Andeavor).

- Calculations   *Andrea Rossi*
  (CEO of Leonardo Corporation, inventor of the E-Cat technology).

- Theory   *Carl-Oscar Gullström*
  (Nuclear physicist, focusing on meson physics)

- *Aperitivo*

E-CAT QX

Third generation of the patented E-Cat technology:

A heat source built on a low energy nuclear reaction (LENR) with a fuel based primarily on nickel, aluminum, hydrogen and lithium, with no radiation and with no radioactive waste.

Claims E-Cat QX:
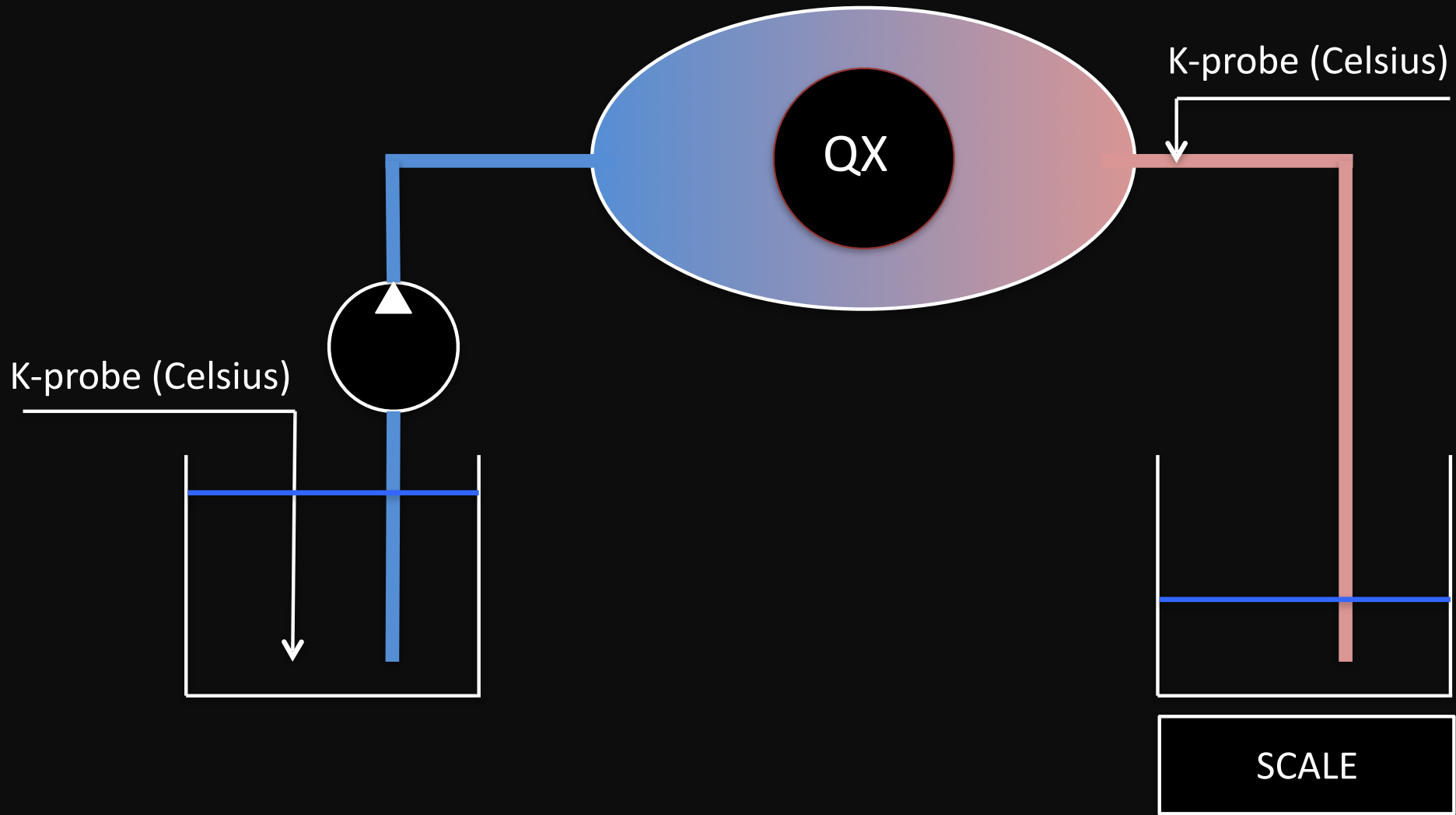- volume ≈ 1 cm^3
- thermal output 10-30 W
- negligible input control power
- internal temperature > 2,600° C
- no radiation above background

Today: Cluster of 3 E-Cat QX

TEST PROTOCOL

Thermal output

K-probe (Celsius)

QX

K-probe (Celsius)

SCALE

TEST PROTOCOL

Thermal output

$$W = m_{water} * C_p * \Delta T$$

C_p water = 4.18 J/(g·K)

$$P_{av} = W/t$$

TEST PROTOCOL

Thermal output

QX → SPECTROMETER
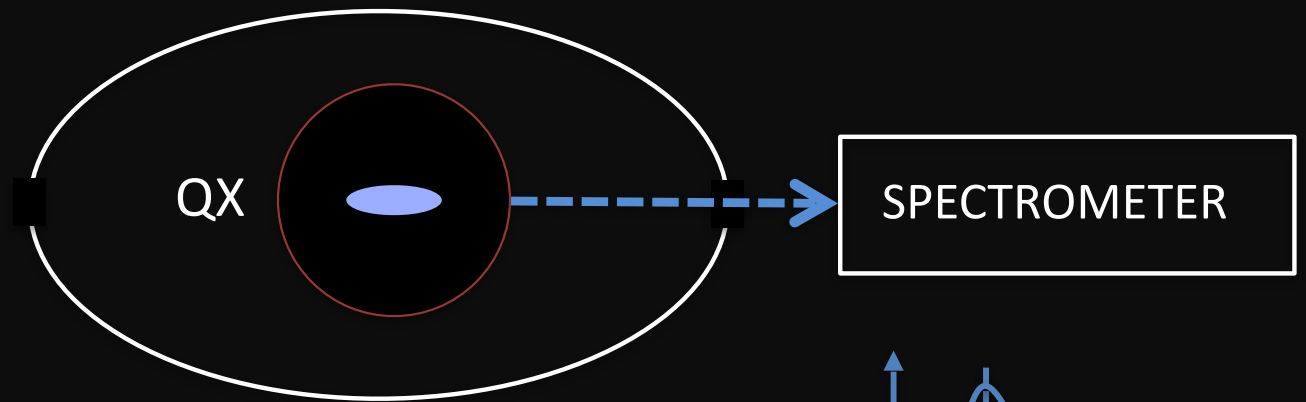
Wien's displacement law:

$$\lambda_{max} = b/T \quad \text{or} \quad T = b/\lambda_{max}$$

where b ≈ 2900 μm·K

Stefan–Boltzmann law:

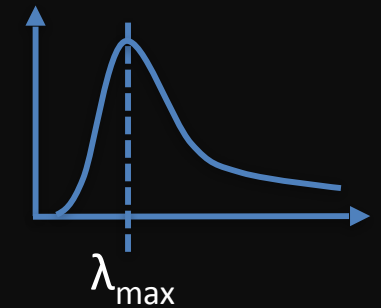$$P = A\varepsilon\sigma T^4$$

where
A = area
ε = emissivity
$\sigma \approx 5.67 \times 10^{-8}$ W/(m²·K⁴)

TEST PROTOCOL

Electric input
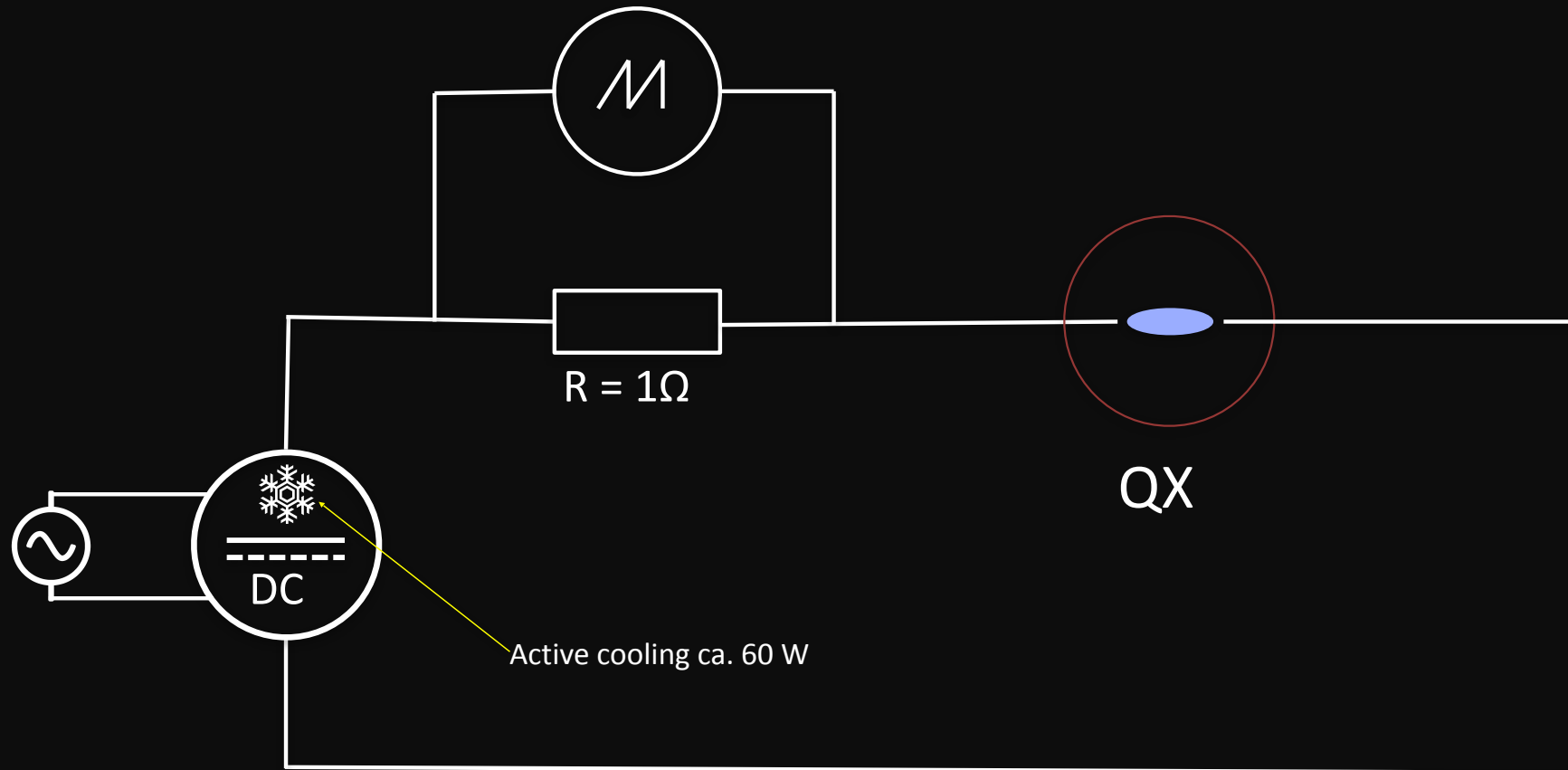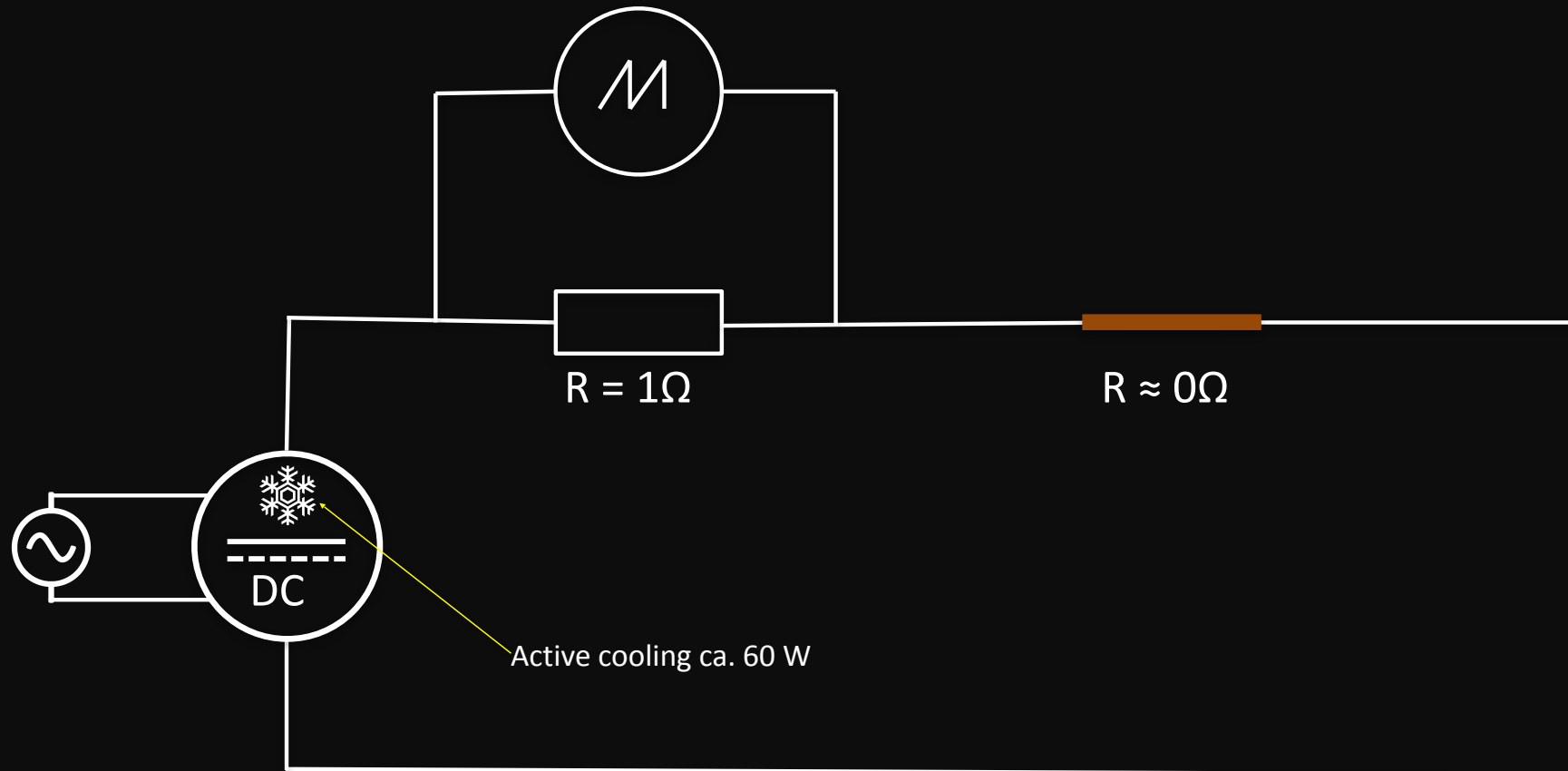
$$I = U/R$$

$$P = UI$$

$$P = RI^2$$

R = 1Ω

M

QX

DC

Active cooling ca. 60 W

TEST PROTOCOL

Electric input

$$I = U/R$$

$$P = UI$$

$$P = RI^2$$

R = 1Ω

R ≈ 0Ω

Active cooling ca. 60 W

DC

TEST PROTOCOL

Electric input

$$I = U/R$$

$$P = UI$$

$$P = RI^2$$

$$800 * 0.25^2 \approx 50 \text{ W}$$
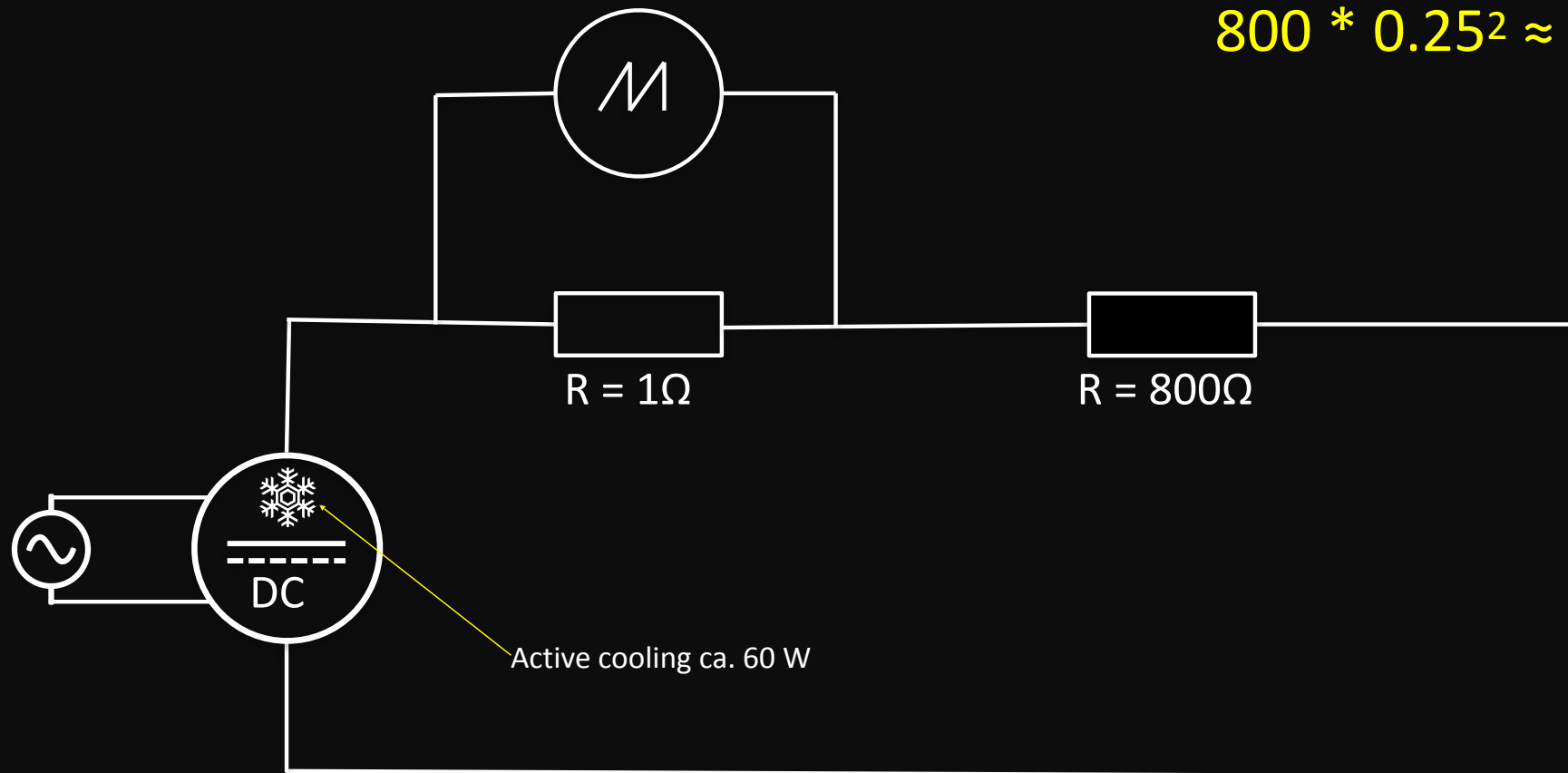
M

R = 1Ω

R = 800Ω

DC

Active cooling ca. 60 W

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THANKS

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