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<http://www.wyu.edu.cn/stations/csjsweb/>

2

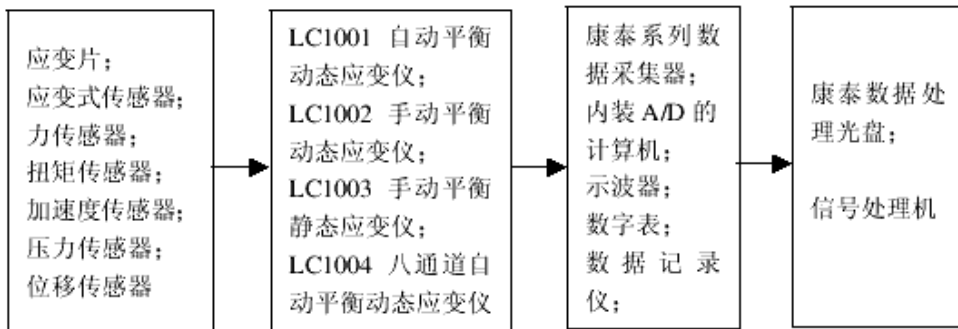
1
2

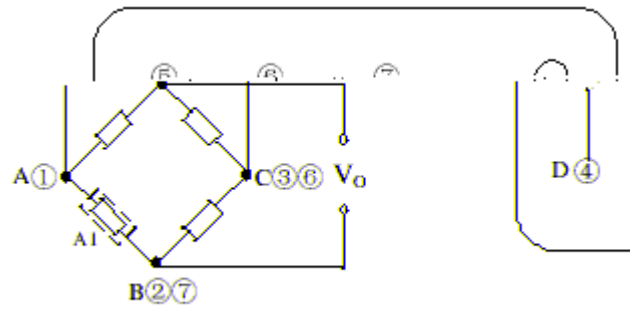
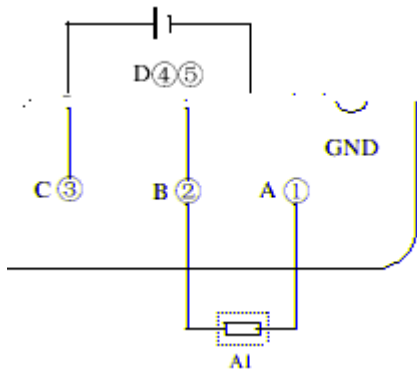
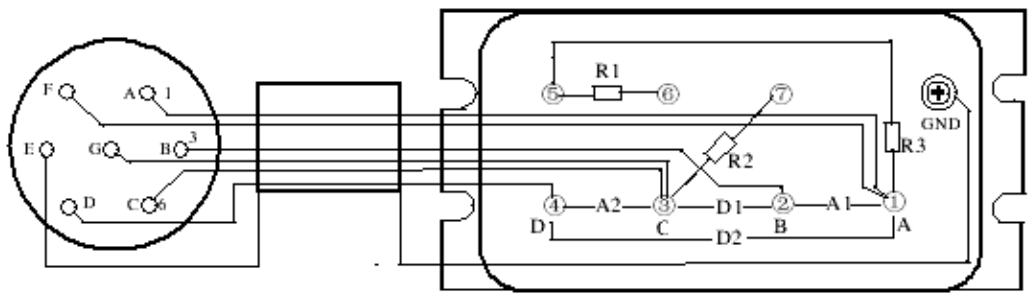
∇6

1
2
3 502
4
5
6
7
8

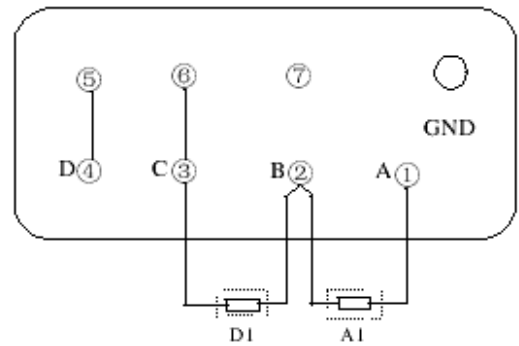
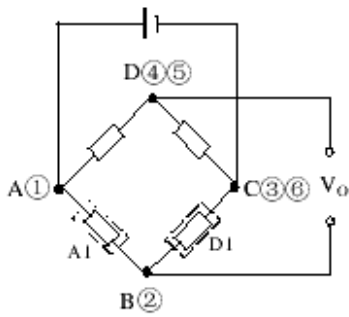
20

1

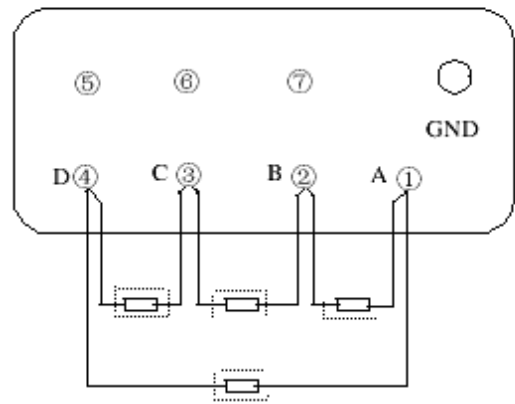
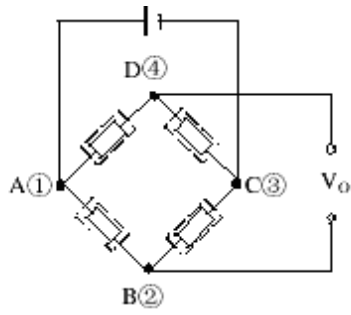


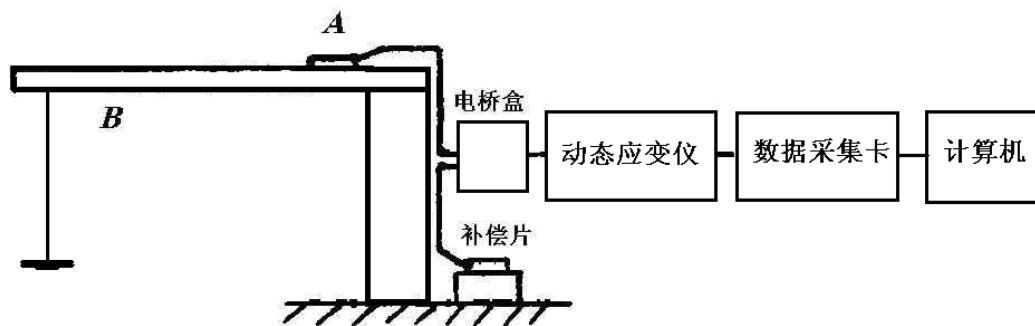


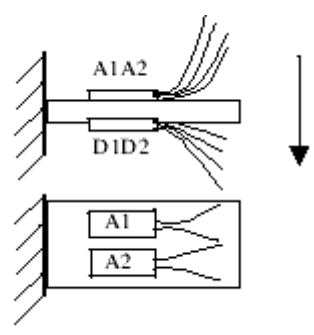
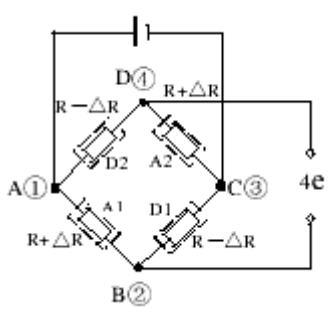
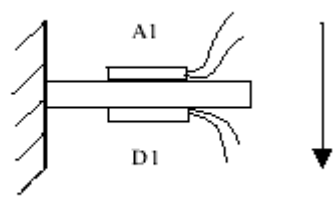
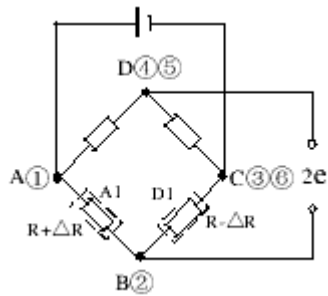
2



2



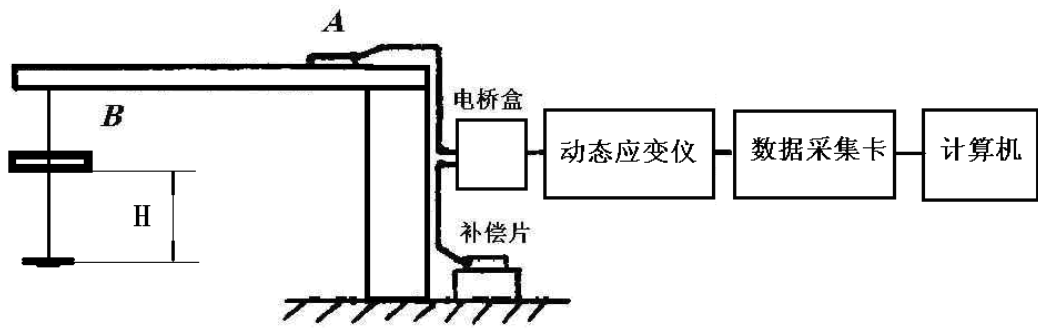




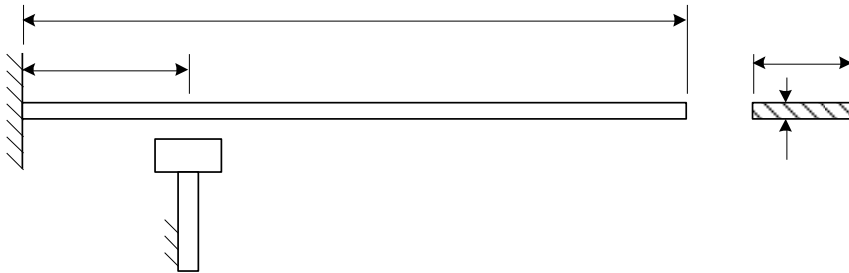
1 kgf

B

ϵ_j



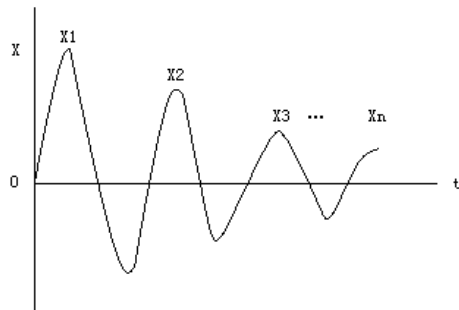
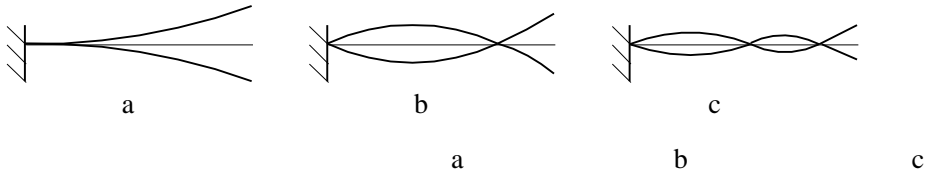
2



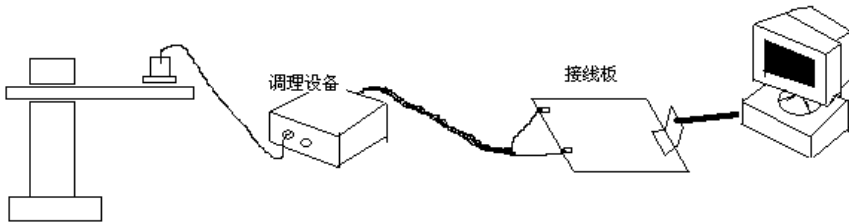
$$f = \frac{17.5}{L^2} \sqrt{\frac{EJ}{A\rho}} \quad \text{Hz}$$

$$\begin{aligned} L & & 2 \\ \rho & = & 3 \\ & & 4 \end{aligned}$$

$$f_1 : f_2 : f_3 = 1 \quad 6.25 \quad 17.5$$



A D



2



3

4

LabVIEW

Run

5

4

6

X1

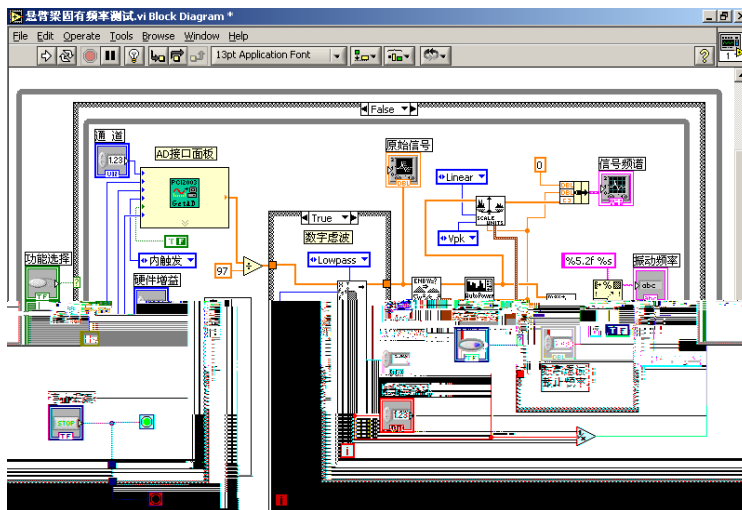
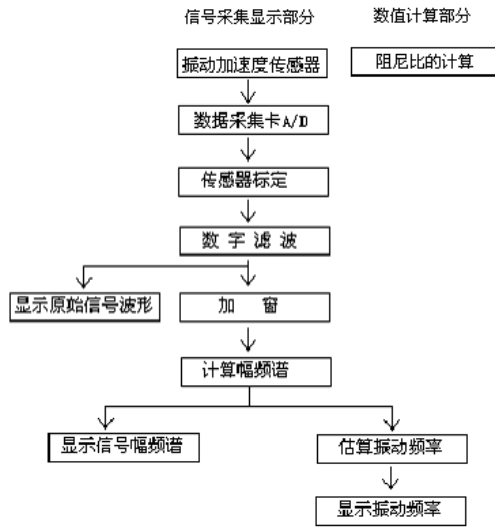
Xn

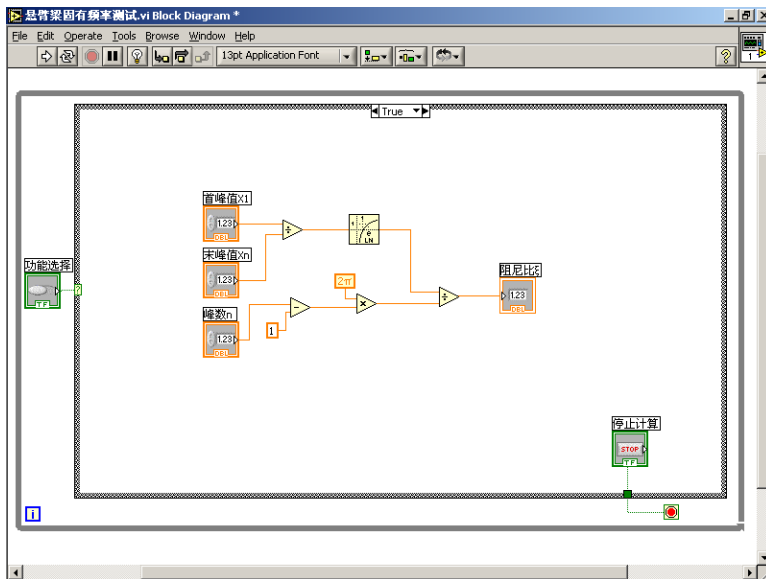
n

7

LabVIEW

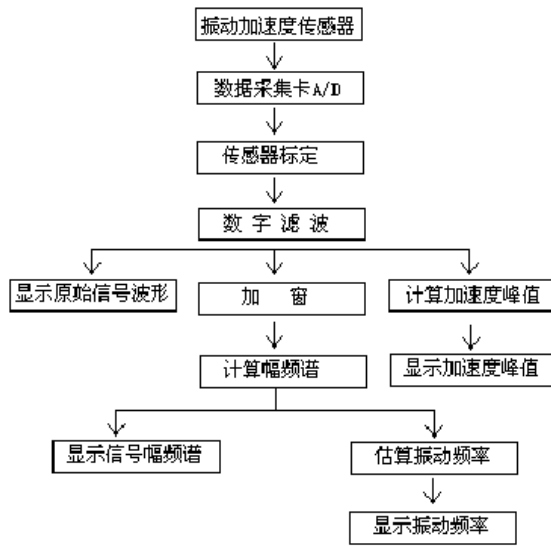
Run





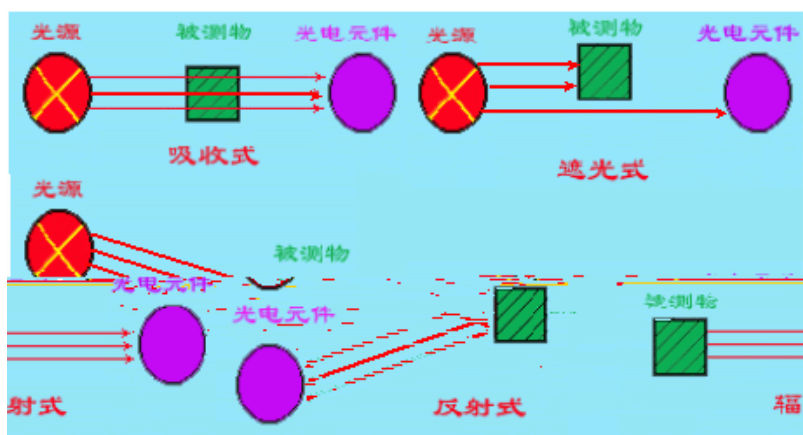
2

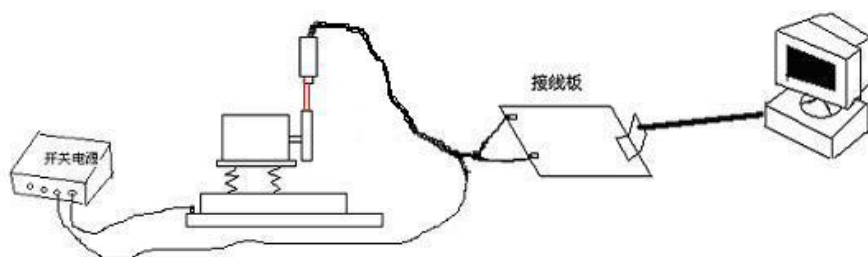
- 1.
- 2.
- 3.
- 4.



- 1.
- 2.

- 1.
- 2.





6

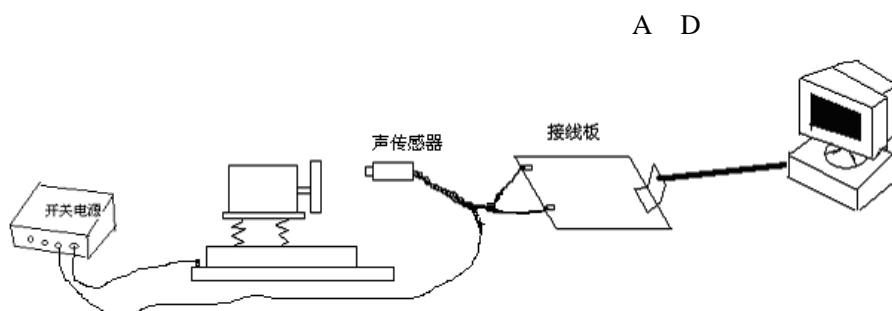
1

2

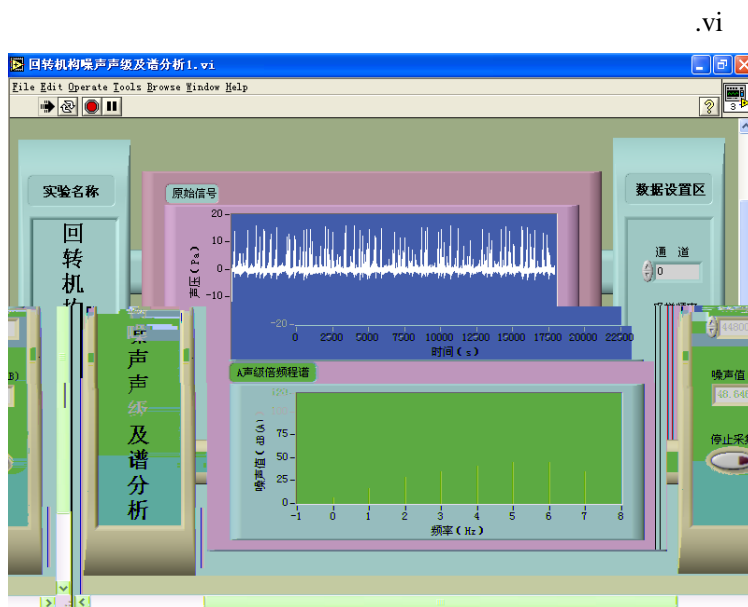
$$L_p = 20 \log \frac{p}{p_0}$$

$$p_0 = 2 \times 10^{-5} \text{ Pa}$$

1.



2.



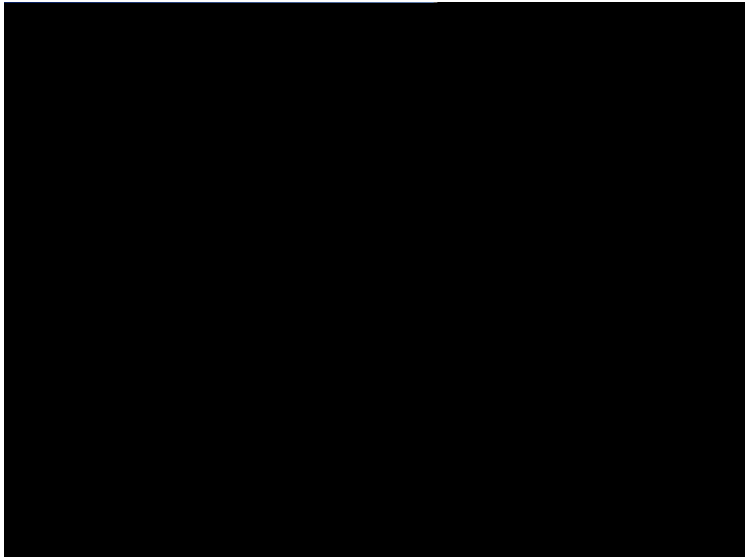
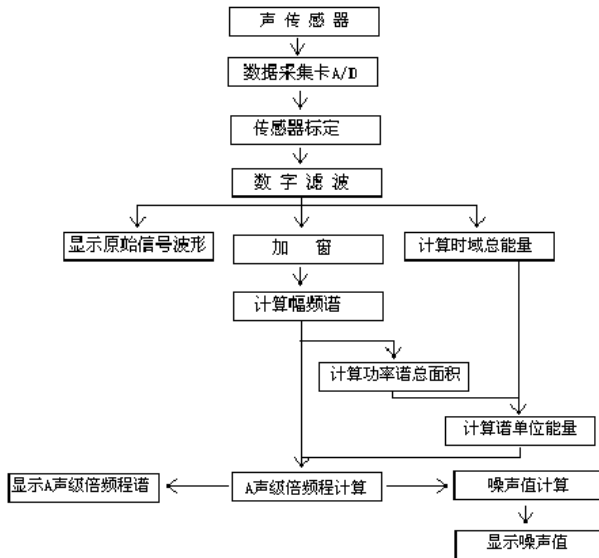
3.

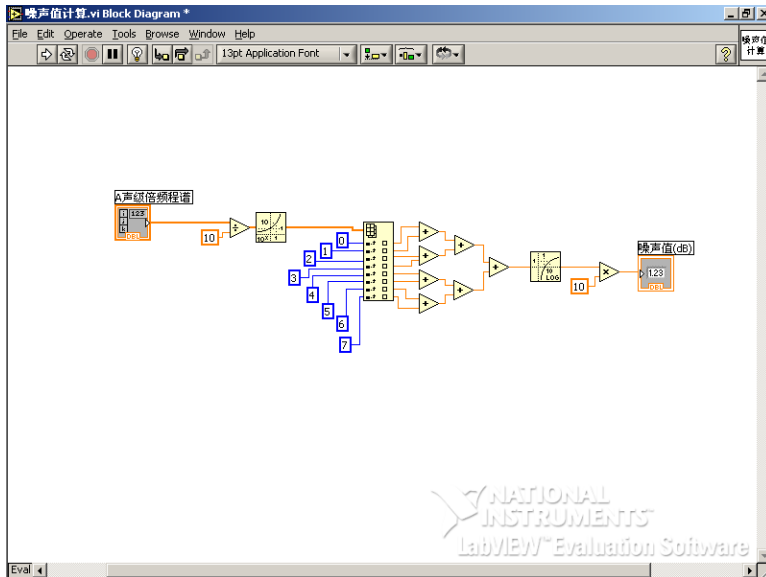
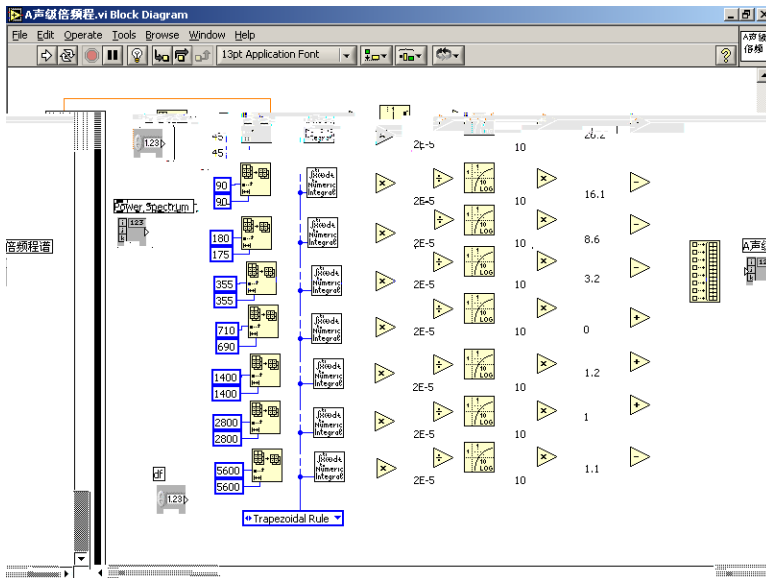
4.

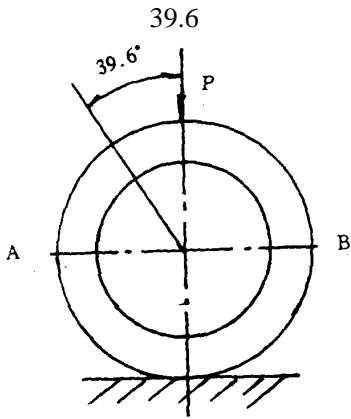
LabVIEW

Run

5.



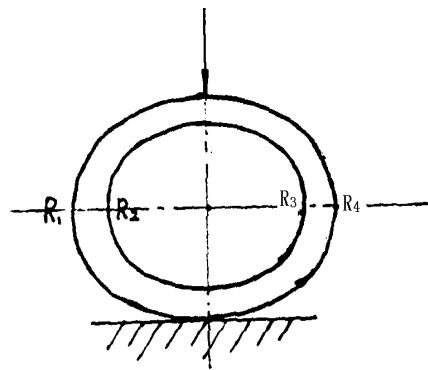




1

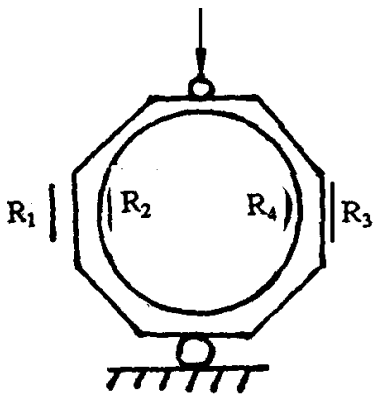
$R_1 \sim R_4$

$R_2 \quad R_3$

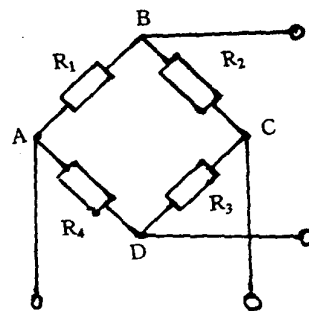


2

2 $R_1 \quad R_4$



3



4

4

3

$$R_1 \quad R_3=R_2 \quad R_4$$

$$R_1=R_2=R_3=R_4=R_5$$
$$e \frac{\Delta R}{R} e$$

$$Z_1 Z_3 = Z_2 Z_4 \quad Z$$

1

1

2

0.3

2

45^0

3.2

3

502

5

502

0.5 1

2

1/10~1/5

2

6

3

1

AC

2

2

BD

3

1

4

2

110%

2

1

2

110%

3-5

YJD-1

1

A B

A B

0

A

A

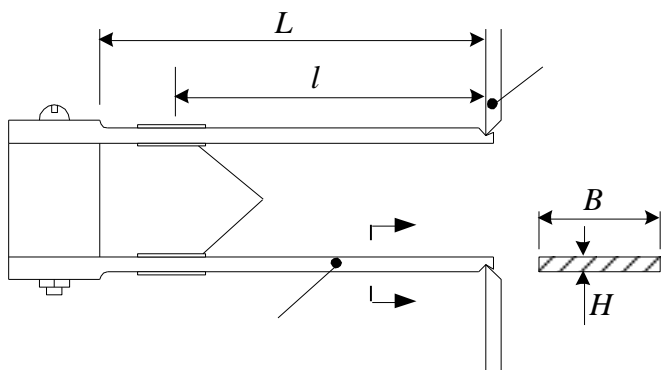
B

B

2

YJ-5

3



1

1

$[\sigma]=400\text{MPa}$

$E=100\text{GPa}$

2

3

V/mm

$10\text{V}/20000\mu\epsilon$

2

1

2

3

1

2

0.1mm

0.2mm

1 mm

2mm

1

2

V/mm

3

4

- 1
- 2
- 3
- 4

<