

2023

(1)

(G. H. Hess)

J. W. Gibbs

2.

(1)

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S. A. Arrhenius

4

3.

(1)

N. Bohr

L. Pauling

F. A. Cotton

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(4)

4.

(1)

(5)

5.

pH

pH

pH

pH

pH

8

9

10

6.

Q

(3)

7. -

-

-

(Mohr)

(Volhard)

(Fajans)

8.

\*

(W. H.

Nernst)

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-pH

9.

EDTA

pH

(Ringbom)

5

6

11.

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(1)

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(S. A. Arrhenius)

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pH

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7. -

(Mohr)

(Volhard)

(Fajans)

8.

9.

**10.**

(1)

**11.**

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2

(1)                10

(2)                20

(3)                20

(4)                20

(5)                30

2019

6 ( ) 2019 8 ( )

2.

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