

Actinomyces Bovis^{no}
 (Lonyenbeck) 1845 (Ballinger) 1846
 (Actino mycosis)

Non motile
 .. flagy elated
 .. sporogenous
 parasitic
 pathogenic
 aerobic and anaerobic

Long thread-like chains - 0.3-0.54 in thickness.

Polarity

+ anode X
 - cathode X

Death rate in milliamperes 12/10

Influence of X ray slight

.. .. Ultra Violet ray stops culture growth in 45 min.

.. .. Infra Red " slightly retards growth

Thermal death point 40 C (24 hrs)

Filiment voltage 5

.. amperage 16

Plate voltage 140

Cycles per second 678,000

Wave length of super regeneration of audion tube 1607 Meters

Bacillus Cereus Symptomatic
 (Ballinger) and Freese date?
 (Symptomatic Anthrax)

Non chromogenic
 motile
 flagellated
 liquefying
 aerogenic
 anaerobic

Length - 3.5 μ : breadth - 0.5 - 0.6 μ .

Polarity

anode X
 - cathode

Death rate in milliamperes 71

Influence of X ray none

" " Ultra Violet ray motility stops in 72 Sec.

" " Infra Red " slight

Thermal death point 49 1/2 C 24 hrs.

Filament voltage 5

" amperage 27

Plate voltage 224

Cycles per second 400,000

Wave length of super regeneration of audion tube 18,000

Bacillus Anthracis
 (Pollander) 1849 (Llavaine) 1863
 (Anthrax)

Non motile
 " flagellated
 " chromogenic
 sporogenous
 liquefying
 Length - 5.28 μ : breadth 1-1.25 μ

Polarity

+ anode X
 - cathode X

leath rate in milliamperes 75 D.C.

Influence of X ray slight
 " " Ultra Violet ray stops growth in culture 2 1/2 hrs.
 " " Infra Red " none

Thermal death point 45C 24 hrs.

Filament voltage 12

" superage 48

Plate voltage 695

Cycles per second 900,000

Wave length of super regeneration of audion tube 1100 Meters

Bacillus coli *communis*
 (Escherich) (1885)
 (B. coli)

Non chromogenic
 " liquefying
 " sporogenous
 motile
 flagellated
 aerobic and anaerobic
 Length 1.3 μ : breadth 0.4-0.7 μ

Polarity

+ anode
 - cathode X none

leach rate in milliamperes 110 + 37500 7

Influence of X ray none
 " Ultra Violet ray stops motility in 5.3 min
 " Infra Red " slight

Thermal death point 45C 24 hrs.

Filament amperage 2)

" voltage 5

Plate " 240

Cycles per second 683,000 943

Wave length of super regeneration of audion tube ~~1050~~ Meters

Bacillus Coli
R. Sc. & (Kendall) 1932

Filterable virus
passes w/ K medium

motile avoid granule
highly plastic
visible only with monochromatic light
angle of refraction $7^{\circ}+$
color by chemical refraction dark brown
length: breadth

Polarity

+ anode X
- cathode X

death rate in milliamperes 86. DC.

Influence of X ray none

" " Ultra Violet ray none

" " Infra Red stimulates growth

Thermal death point 43 C 24 hrs.

Filament voltage 12

" amperage 30

Plate voltage 980

Cycles per second 8,581,000

Wave length of super regeneration of audion tube. 27 meters.

Bacillus diphtheriae
 (Klebs) 1883 (Soffler) 1884
 (Diphtheria)

Non motile

" flagellated

" chromogenic

" liquefying
 aerobic

purely parasitic

Length 1.5-6.5 μ : breadth .3-.8 μ

Polarity

+ anode

- cathode

X

Death rate in milliamperes 175

Influence of X ray slight

" " Ultra Violet ray stops culture growth in 4 1/2 hrs.

" " Infra Red ray none

Thermal death point 45C 24 hrs.

Filament voltage 9

" amperage 18

Plate voltage 585

Cycles per second 800,000

Wave length of super regeneration of audion tube .275 Met.

Bacillus Influenzae
(R. Pfeiffer) 1892
(Influenza)

Non motile
" flagellated
" sporogenous
" liquefying
" chromogenic
" aerobic

Length 0.5 μ : breadth 0.2 μ

Polarity

+ anode
- cathode X

Death rate in milliamperes	120
Influence of X ray	none
" " Ultra Violet ray	slight in showing growth
" " Infra Red ray	none
Thermal death point	50C.
Filament voltage	11
" amperage	7
Plate voltage	250
Cycles per second	1,674,000
Wave length of super regeneration of audion tube	154 met.

Bacillus lepra
(Hansen) (1879)
(Leprosy)

Non motile
 " flagellated
 " sporogenous
 cultivable on special media
 parasitic
 acid resisting

Length - 1.4-3.3 μ . Breadth. 0.2-3.5 μ

Polarity

+ anode X
 - cathode

Death rate in milliamperes 53

Influence of X ray slight

" " Ultra Violet ray stops growth in lesion in 4 1/2 hrs.

" " Infra Red " none

Filament voltage 6

" ampere 19

Plate voltage 127

Thermal death point 42 C (24 hrs)

Cycles per second 743,000

Wave length of super regeneration of audion tube 1190³ meters

Bacillus Mallei
(Löffler) and Schütz (1882)
(Glanders)

Non motile
 " flagellated
 " sporeogenous
 " liquefying
 " chromogenic
 aerobic and anaerobic
 Length 1.5-3 μ : breadth 0.25-0.4 μ

Polarity

+ anode X
 - cathode

leath rate in milliamperes 95
 Influence of X ray none
 " " Ultra Violet ray none
 " " Infra Red .. none
 Thermal death point 506C 24 hrs.
 Filament voltage 9
 " amperage 127
 Cycles per second 986,000 927 = Plate voltage
 Wave length of super regeneration of audion tube 407 METERS.

Bacillus Pesticus(Yersini) and (Kitasato) 1894
(Bubonic Plague)

Non motile
 " flagellated
 " chromogenic
 aerobic and anaerobic
 minute diplococci
 Length 1.5-2 μ ; breadth 0.5-0.75 μ

Polarity

+ anode X
 - cathode X

Death rate in milhamperes 140

Influence of X ray none

" " Ultra Violet ray increases culture growth

" " Infra Red " none

Thermal death point 48 C 24 hrs.

Filament voltage 6

" amperage 55

Plate voltage 375

Cycles per second 160,000

Wave length of super regeneration of audion tube 585 Meters

Bacillus Tetani
 (Nicolauer) 1884 (Kitasato) 1889
 (Tetanus)

Non chromogenic
 " flagellated
 " sporogenic
 " liquefying
 " motile
 " anaerobic

Length 2.4 μ ; breadth 0.3-0.5 μ

Polarity

+ anode X

- cathode X

leath rate in milliamperes 64

Influence of X ray none

" " Ultra Violet ray stops growth in 82 min

" " Infra Red " slight

Thermal death point 57 1/2 C 24 hrs.

Filament voltage 6

" amperage 30

Plate voltage 140

Cycles per second 700,000

Wave length of super regeneration of audion tube 19,000 Meters

Bacillus Tuberculosis
(Koch) (1882)
TUBERCULOSIS

Non motile
 " flagellated
 " sporogenous
 " liquefying
 " chromogenic
 aerobic
 acid resisting

Highly pathogenic

Length - 1.5-3.3 μ : breadth - 0.2-0.5 μ

Polarity

+ anode X
 - cathode

Death rate in milliamperes 168

Influence of X ray none

" " Ultra Violet ray retards culture growth (5hrs)

" " Infra Red " slight

Thermal death point 42 $\frac{1}{2}$ C. (-24hrs)

Filament voltage 9

amperage 21

Plate voltage 1138

Cycles per second 583,000

Wave length of super regeneration of audion tube 554 meters.

Bacillus Typhi Murium
 (Sofflet) 1889
 (TYPHUS MURTIUM)

motile
 flagellated
 aerogenic
 non sporogenous
 " liquefying
 " chromogenic

Polarity

anode
 - cathode

Death rate in milliamperes

Influence of X ray

" Ultra Violet ray

" Infra Red "

Thermal death point

Filament voltage
 amperage

Plate voltage

Cycles per second

Wave length of super regeneration of audion tube

Bacillus Typhosus Filterable virus:

Rife & (Kendall) 1932 passes w. K medium

motile small ovoid granule
 highly plastic
 visible only with monochromatic light
 angle of refraction 4.8-
 color by chemical refraction turquoise blue
 length - breadth

Polarity

anode X
 - cathode

Death rate in milliamperes 128 D.C.

Influence of X ray none
 " " Ultra Violet ray slows motility
 " " Infra Red " none

Thermal death point 41°C 24 hrs.

Filament voltage 11

Plate voltage 1,700

Cycles per second 680,000

Wave length of super regeneration of audion tube 2 1/2 met.

Filament amperage 49

Bacillus Typhosus
 (Eberth) 1880 (Yoffkey) 184
 (Typhoid Fever)

Non liquefying
 " chromogenic
 " aerogenic
 motile
 flagellated
 aerobic and anaerobic

Length - 1.3-2.4 μ : breadth - 0.5-0.8 μ .

Polarity

+ anode
 - cathode X

Death rate in milliamperes 28

Influence of X ray none

" " Ultra Violet ray stops motility in 21 min.

" " Infra Red " stops growth in culture in 50 min.

Thermal death point 39 1/2 C. (24 hrs.)

Filament voltage 8

amperage 21

Plate voltage 135

Cycles per second 900,000

Now length of super regeneration of audian tube 345 Meters.

Bacillus X

(Rife) 11-20-32

Filterable Virus: Passes W: K Medium

motile small ovoid granule
 highly plastic
 visible only with mono chromatic light
 angle of refraction $123/10$
 color by chemical refraction Purple-red
 length - $1/15\mu$; breadth $1/20\mu$

Polarity

+ anode

- cathode

X

bleach rate in milliamperes 175 D.C.

Influence of X ray none

" " Ultra Violet ray slows motility

" " Infra Red " none

Thermal death point 42C. 24 hrs.

Filament voltage 10

" amperage 86

Plate voltage 928

Cycles per second 14,780,000

Wave length of super regeneration of audion tube $17\frac{1}{10}$ met.

Lippococcus Intracellularis Meningitidis
 (Weichselbaum) 1887
 (Spinal Meningitis)

Non motile
 " flagellated
 " sporogenous
 " chromogenic
 " liquefying
 aerobic and anaerobic

Polarity

+ anode
 - cathode

death rate in milliamperes	110 D.C.
Influence of X ray	none
" " Ultra Violet ray	slight
" " Infra Red "	none
Thermal death point	48°C 24 hrs
Filament voltage	"
" amperage	29
Plate voltage	870
Cycles per second	97,800
Wave length of super regeneration of audion tube	167 meters

Diplococcus pneumoniae
 (Sternberg) 1880 (Pasteur) 1880
 (PNEUMONIA)

Non motile
 " flagellated
 " sporogenous
 " liquefying
 " chromogenic
 aerobic and anaerobic
 slightly elongated diplococcus

Polarity

Farade

- cathode

X

Death rate in milliamperes 12

Influence of X ray none

" " Ultra Violet ray stops culture growth in 64 min.

" " Infra Red ray retards growth in culture

Thermal death point 47C 24 hrs.

Filament voltage 9

" amperage 26

Plate voltage 1100

Cycles per second 1,200,000

Wave length of super regeneration of audion tube: 785 Meters.

Koch-Weeks Bacillus
(Koch) and (Weeks) 1895
Contagious Conjunctivitis

non motile
" flagellated
" sporogenous
" liquefying
" chromogenic
aerobic and anaerobic

Length - 1.2 μ : breadth 0.25 μ

Polarity

anode X

- cathode X

death rate in milliamperes 89 P.C.

Influence of X ray none

" " Ultra Violet ray none

" " Infra Red " none

Thermal death point 42 C.

Filament voltage 12

" amperage 8

Plate voltage 900

Cycles per second 4,200,000

Wave length of super regeneration of audion tube 148 meters

Micrococcus catarrhalis
(Seifert) and (Krichner) (1890)
(Catarrhal inflammation)

Small ovoid granule
non motile
" sporulating
" flagellated
" liquefying
" chromogenic
aerobic and anaerobic
Length 2. μ - ; breadth 1. μ .

Polarity

+ anode X
- cathode

Death rate in milliamperes	75
Influence of X ray	none
" " Ultra Violet ray	none
" " Infra Red "	none
Thermal death point	47 C 24 hrs.
Filament voltage	9
" amperage	54
Plate voltage	700
Cycles per second	1,800,000
Wave length of super regeneration of audion tube.	175 Meters

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Mirococcus Gonorrhoea
 (Nexsen) (1879)
 (Gonorrhoea)

Non motile
 .. flagellated
 .. sporogenous
 .. liquefying
 .. chromogenic
 aerobic parasitic coccus

Pathogenic for man only

Length - 1.64 : breadth - 0.84

Polarity

+ anode X
 - cathode X

Death rate in milliamperes $8\frac{3}{10}$

Influence of X ray none

" " Ultra Violet ray slight

" " Infra Red " stimulates growth

Thermal death point 39C. (24 hrs.)

Filament voltage 12

" an peridge 40

Plate voltage 453 $\frac{1}{2}$

Cycles per second 600,000

Wave length of super regeneration of audion tube 1990 Meters

Spirillum Cholerae Asiaticae
(Koch) 1884
(Cholera Spirillum)

Motile
flagellated
liquefying
parasitic
aerobic and anaerobic
non-sporogenous
" chromogenic

Polarity

anode X
- cathode X

death rate in millimicrons	74
Influence of X ray	none
" " Ultra Violet Rays	slight
" " Infra Red "	none
Thermal death point	43 C
Filament voltage	12
" amperage	26
Plate voltage	187
Cycles per second	851,000
Wave length of super regeneration of audion tube	312 met.

Staphylococcus Pyogenes Aureus
 (Rosenbach) ^{2.11?}
 (Staphylococcus)

Non motile
 " flagellated
 " sporogenous
 liquefying
 chromogenic
 aerobic and anaerobic
 diameter - 0.7 μ

Polarity

+ anode

- cathode

X

death rate in milliamperes 89 P.C.

Influence of X ray none

" " Ultra Violet ray retards growth in culture

" " Infra Red ray stimulates " " "

Thermal death point 40 C.

Filament voltage 12

" amperage 18

Plate voltage 1,100

Cycles per second 998,7401

Wave length of super regeneration of audion tube $54\frac{1}{2}$ meters

Haemococcus Poliomylitis Filterable virus

Rife & (Rosenow) 1932

passes N
chick infusion broth

non motile spherical granule
 highly plastic
 visible only with monochromatic light
 angle of refraction 8.3+
 color by chemical refraction Reddish Brown
 length breadth

Polarity

+ anode
 - cathode

death rate in milliamperes

Influence of X ray

" " ultra violet ray

" " Infra Red "

Thermal death point

Filament voltage

" amperage

Plate voltage

Cycles per second

Wave length of regeneration of audion tube

Streptococcus Pyogenes
(Rosenbach) det.?
Streptococcus

Non motile
 " flagellated
 " sporogenous
 " liquefying
 " chromogenic
 aerobic and anaerobic
 diameter - 0.4 - 1 μ

Polarity
 + anode X
 - cathode

Death rate in milliamperes 120 D.C.

Influence of X ray none
 " " Ultra Violet ray retards growth in culture
 " " Infra red rays none

Plate voltage 921

Filament voltage 8

" amperage 9

Cycles per second 1,241,000 \checkmark

Wave length of super regeneration of audion tube 142 met-

Thermal death point 50 C.

Treponema Pallidum - Spirochaete of Syphilis
 (Schaudinn and Hoffman) (1905)
 (Syphilis)

Motile

Flagellated

Can be cultured

Length - 3.5-15.5 μ : breadth - 0.33-0.5 μ

Polarity

+ anode

- cathode X

Death rate in milliamperes - D.C. 80

Influence of X ray slight

" " Ultra Violet Ray none

" " Infra Red " none

Thermal death point 39 1/2 C 24 hours

Filament voltage 10

" ampere 31

Plate voltage 307

Cycles per second 900,000

Wave length of Super regeneration of audion tube 108 Met.