SCIENTIFIC PROCEEDINGS

ABSTRACTS OF COMMUNICATIONS

One hundred twenty-seventh meeting.

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President Wallace in the chair.

60 (2020)

Is Bacillus Acidophilus therapy a strictly bacteriological phenomenon?

By NICHOLAS KOPELOFF.

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Having obtained relief from chronic constipation and diarrhea by treatment with milk fermented with *B. Acidophilus,* further studies are in progress to determine whether the essential nature of this phenomenon is physical, chemical or bacteriological.

Subject to the limitations of the material under consideration the following points have been established:

1. *B. Acidophilus* therapy is not a physical phenomenon since patients receiving sterile milk were not relieved of constipation.

2. *B. Acidophiius* therapy apparently is not a strictly chemical phenomenon, since patients receiving *B. Acidophiius* milk which had been pasteurized to kill all living forms, were not relieved of constipation.

3. *B. Acidophilus* therapy appears to be essentially a bacterio-

logical phenomenon, since patients were relieved of constipation by the ingestion of milk fermented by *B. Acidophilus.*

4. Relief from chronic constipation has persisted for six months after the ingestion of *B. Acidophilus* has been discontinued.

5. Viable *B. Acidophilus* organisms in appreciable number have been recovered from the feces of patients six months after the ingestion of *B. Acidophilus* milk.

61 (2021)

Brom cresol green, a sulfonphthalein substitute for methyl red.

By BARNETT COHEN.

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The sulfonphthalein indicators of Clark and Lubs have shown themselves quite stable and reliable in biological fluids. Methyl red, which is not a sulfonphthalein, is not altogether reliable, but was included in the Clark and Lubs series because it was indispensable in covering a certain range of H-ion concentration. Methyl red is easily reduced irreversibly to a colorless compound—frequently by microbic action—thereby impairing its utility as an indicator under all conditions.

A sulfonphthalein indicator has been synthesized which has an apparent dissociation constant almost identical with that of methyl red and which seems as stable and reliable as the rest of the sulfonphthaleins. This compound is tetra-brom m-cresol sulfonphthalein. It is made by the bromination in glacial acetic acid of m-cresol sulfonphthalein. The common name suggested for this compound is *Brom Cresol Green.* Its effective range as an acid-base indicator is between P_H 4.0 and 6.0, with a color change from yellow to green to blue-green. Its apparent dissociation constant in terms of P_H is 5.00 (that of methyl red is 4.95).