







2023

10 19

A512

2023

2022

2023

2022

3D

12 10

3D

3D

3D



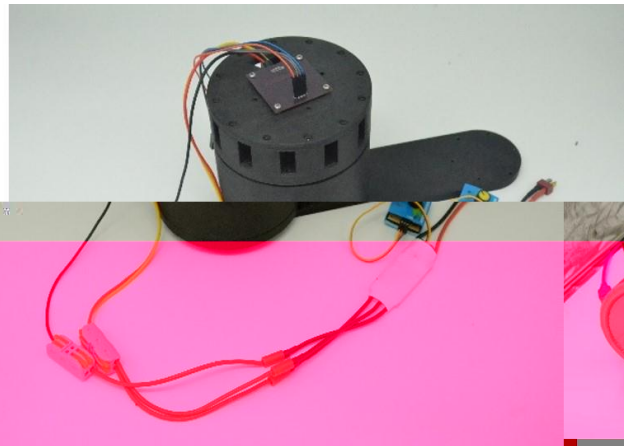
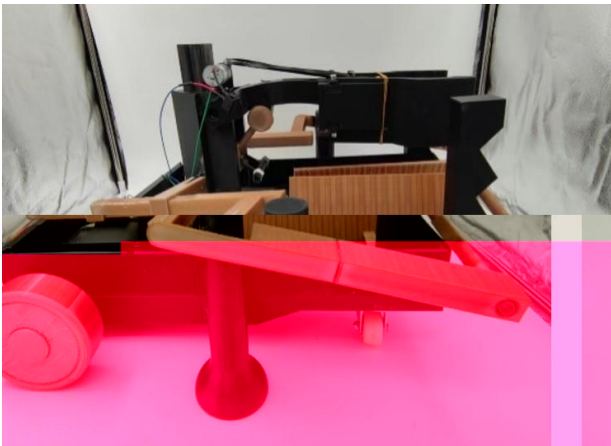
3D

20

191

37

103





3D

ABS/PC/PEEK

3D

3D

4

3D

-3D

4

CEO

3D

CEO

3D

3D

3D

L-SOP

8

57

160

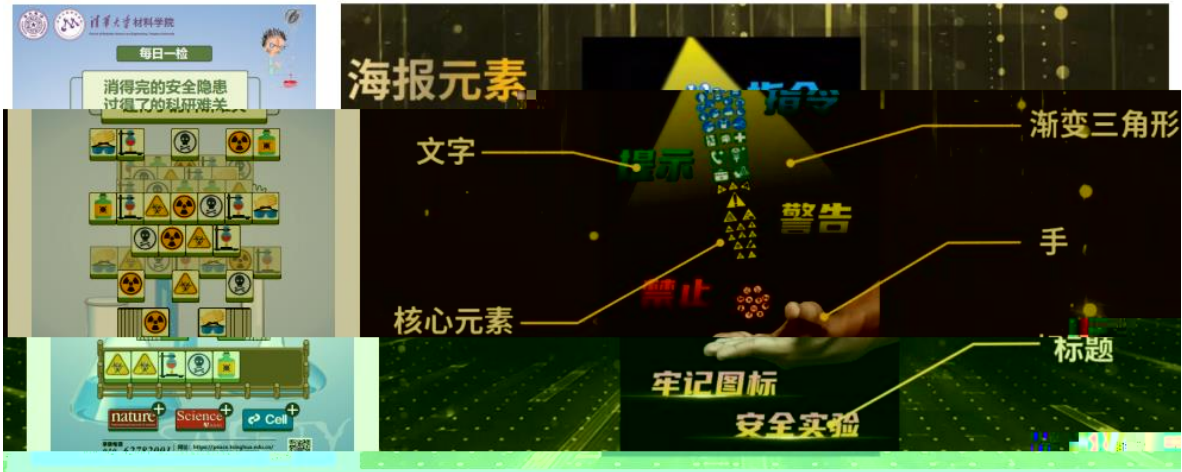


2022 7

3 5 9 3 6 9 8

1 3 5 6 L-SOP 2 2

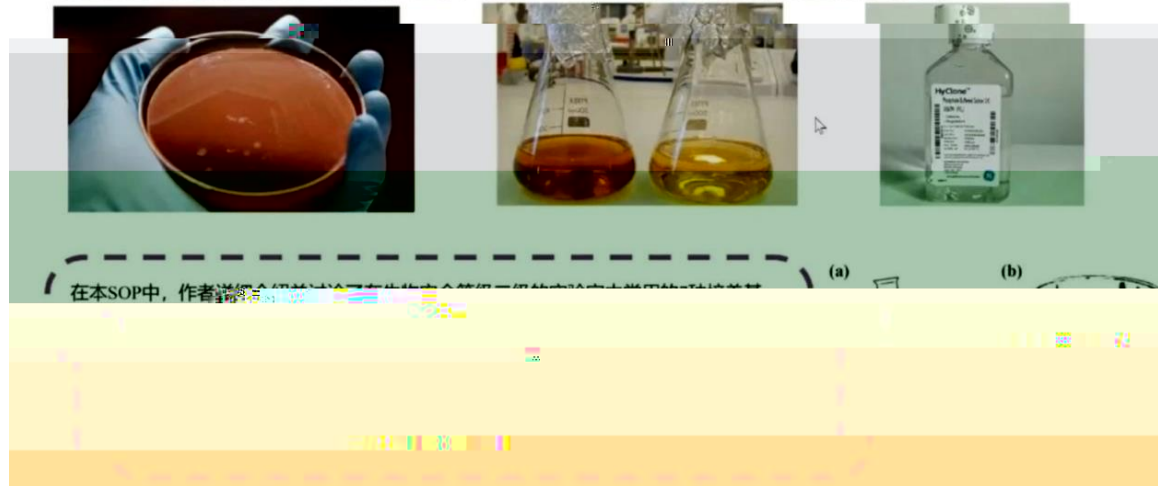




02 | 培养基与溶液



细菌实验所使用的的培养基与溶液多且杂，好的SOP必须要实现这类内容的完备讨论与归纳：



L-SOP

11 19

24

9

222

222

222

191

191

201

201

202

211



2022 IEEE Brain

CNT/IGZO CFET

RRAM

A Hybrid Computing-In-Memory Architecture by Monolithic 3D Integration of BEOL

CNT/IGZO-based CFET Logic and Analog RRAM 2022

IEEE International Electron Devices Meeting, IEDM

IEEE Brain

(IEEE Brain Best Paper Award)

Award)

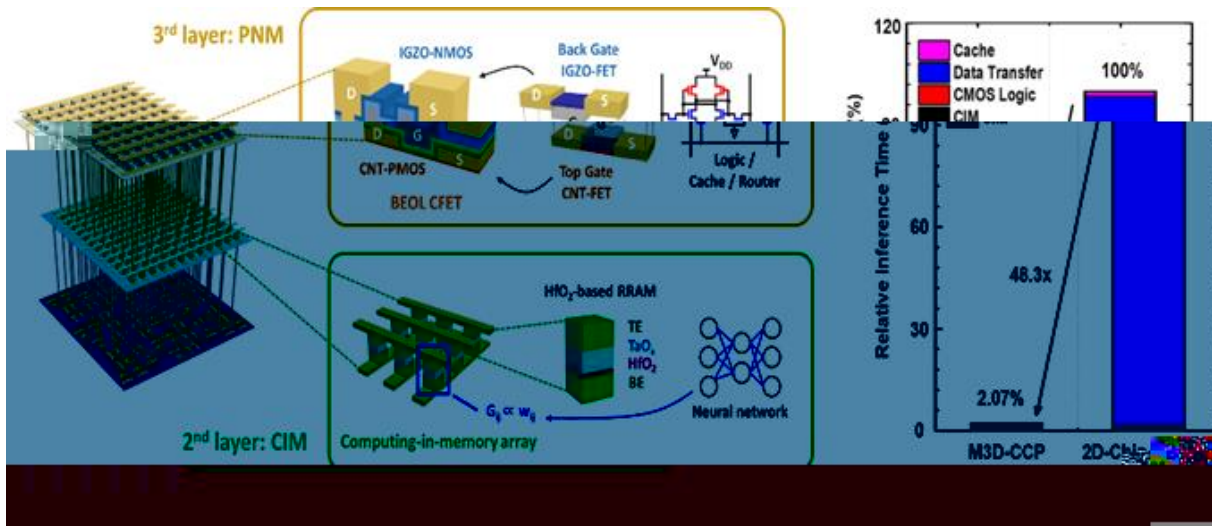


1

AI

HPC

50



2

3

130 nm

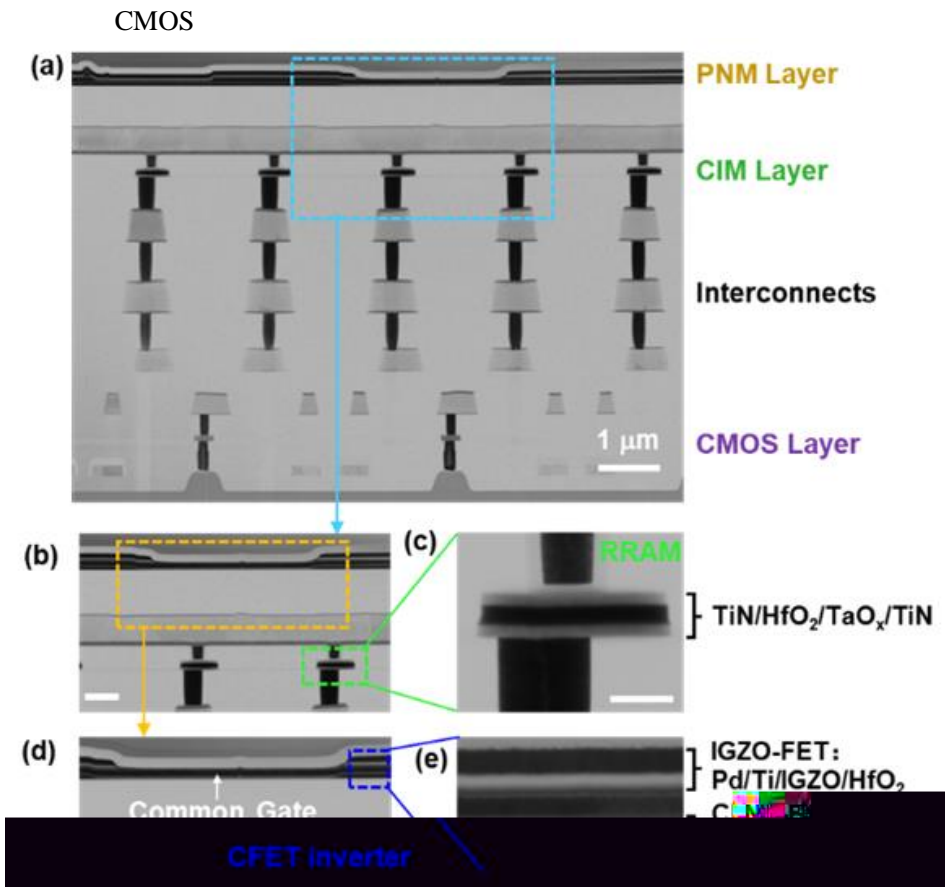
CMOS
CFET

SRAM

HfO₂ RRAM 1T1R

CNT/IGZO

RRAM - MVM RRAM
 MVM ReLU
 RRAM CMOS RRAM
 SRAM RRAM
 RRAM
 RRAM CNT / ILV IGZO CMOS CFET
 CMOS CFET
 CMOS



3 TEM (a) (b) RRAM CFET (c) HfO₂
 RRAM (d) CFET (e) CFET =250 nm
 2020 2019

62783921

C201 发