
QUEEN
OF
KATWE
POWER LINE
GYM



식량 원조
기술 원조



교육



결실

적정기술

적정기술(Appropriate Technology)은 주로 개발도상국 지역의 문화적, 정치적, 환경적 면들을 고려하여, 삶의 질 향상과 빈곤 퇴치 등을 위해 적용되는 기술.













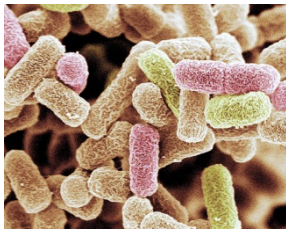
Water filter

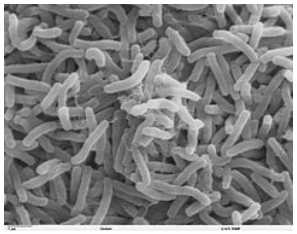




미세입자: ~um size

균: 대장균, 콜레라, 살모넬라 ~1 um

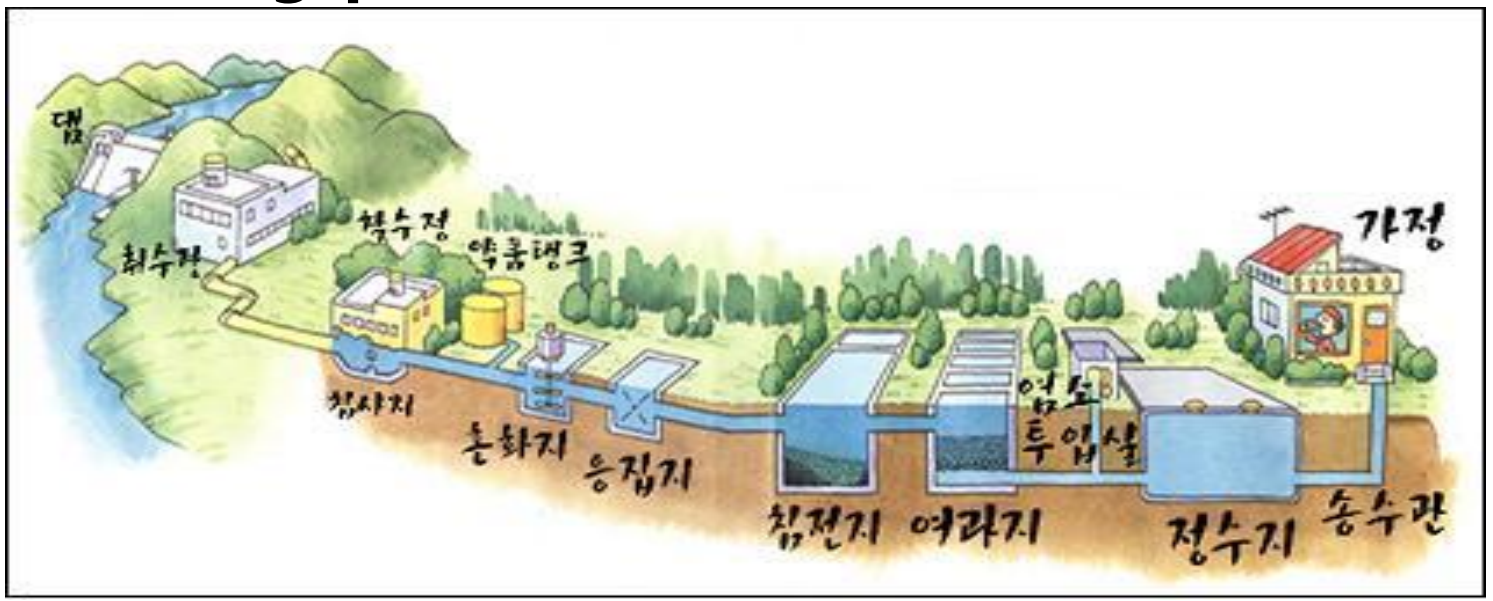






이온: Ca, Mg, Cl

Filtering process





LifeStraw

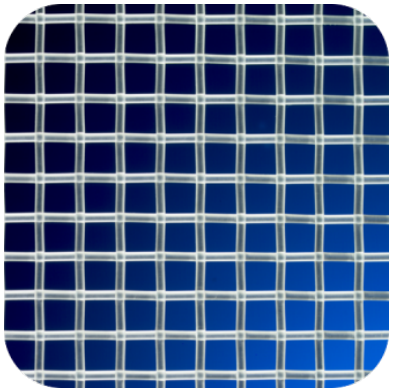


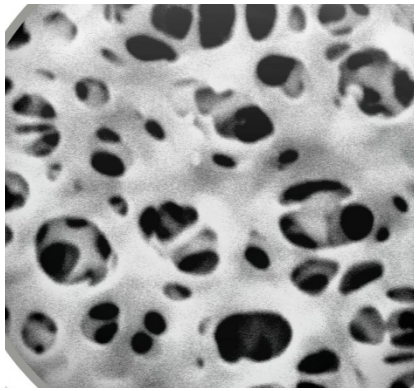
3차

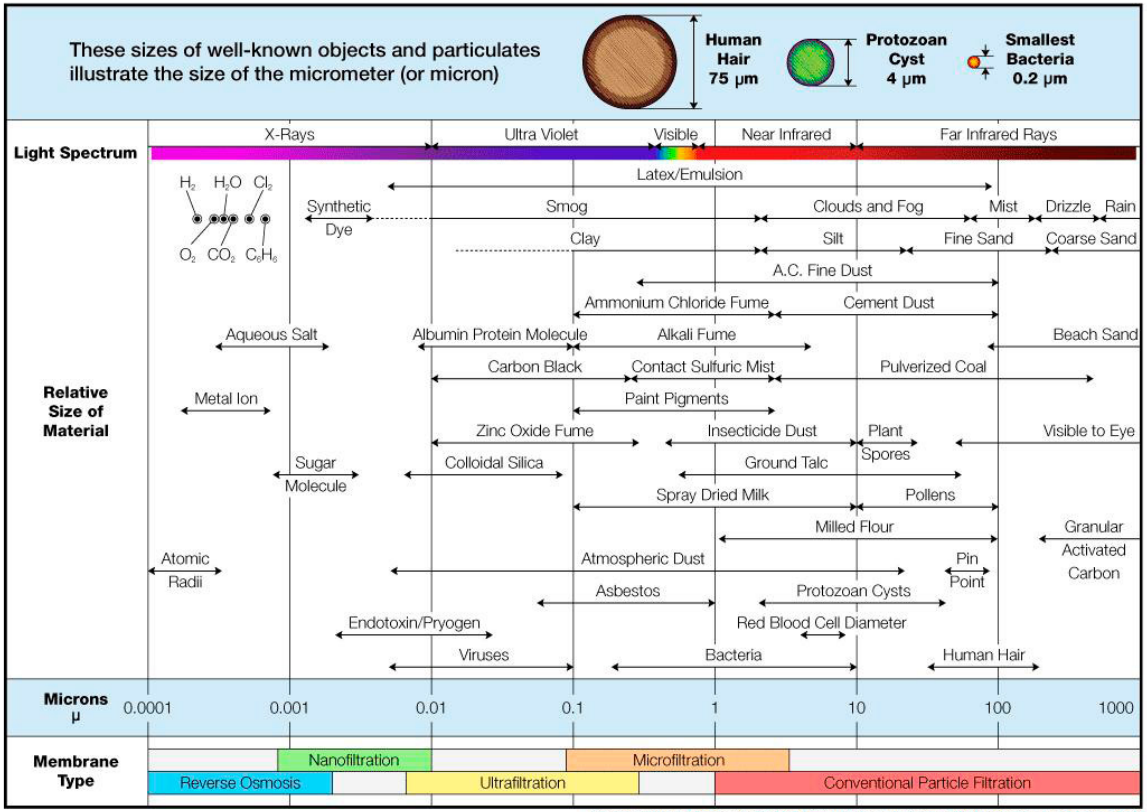
2차

1차

Polyester mesh: 0.2 um ~ 100 um







Source: "Water Proccessing: Third Edition", Wes McGowan, Water Quality Association, 2001

LifeStraw



3차

2차

1차

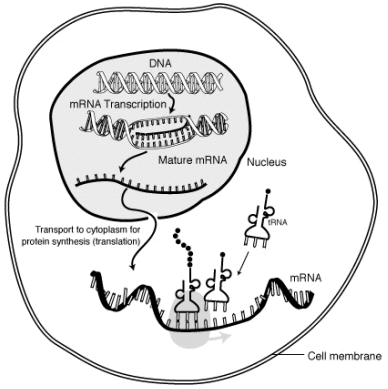


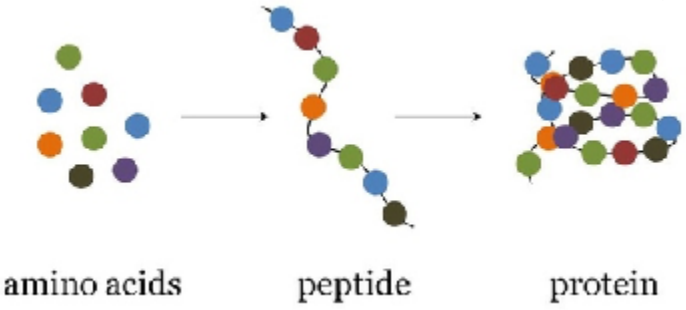
Iodine crystals

$I_2(l) + H_2O(l) \rightarrow OI^-(aq) + 2H^+(aq) + I^-(aq)$

1) Soft (hard) water: Ca^{2+}, Mg^{2+}

2) Kill bacterias





LifeStraw



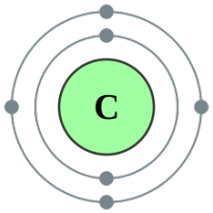
3차

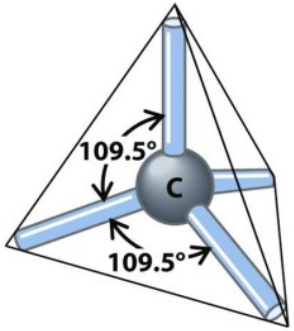
2차

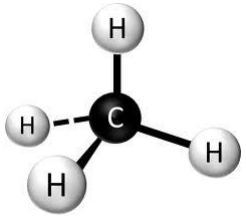
1차

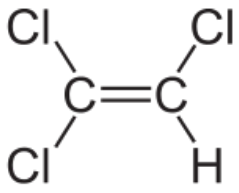
Carbon filter

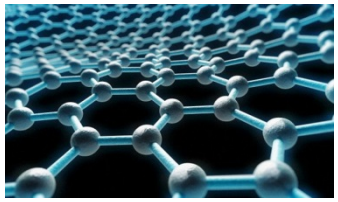












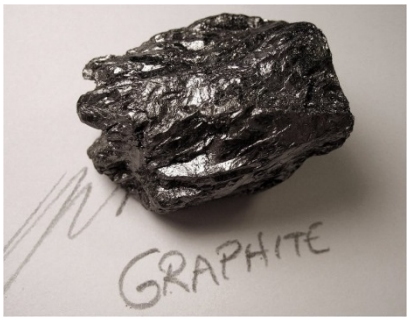


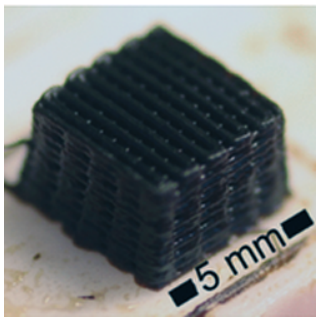
Gas Liquid Solid Solid (diamond)











LifeStraw

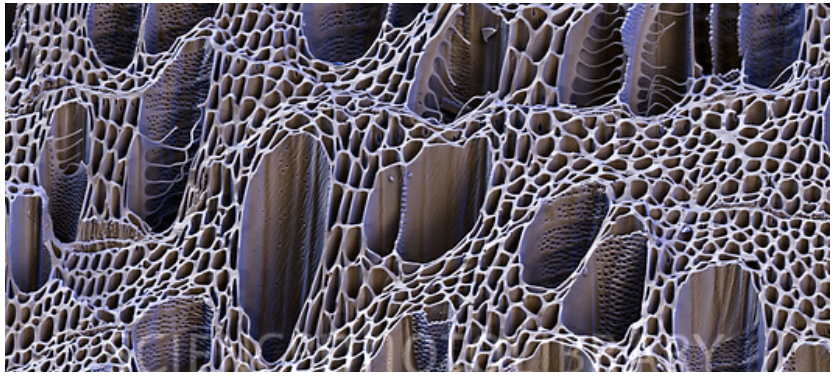


3차

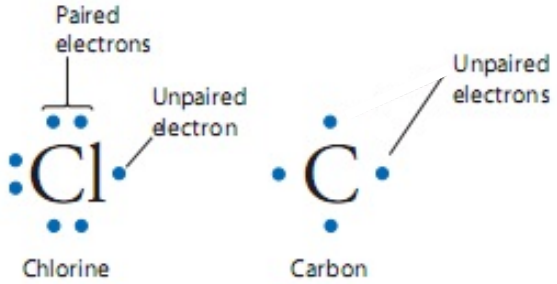
2차

1차

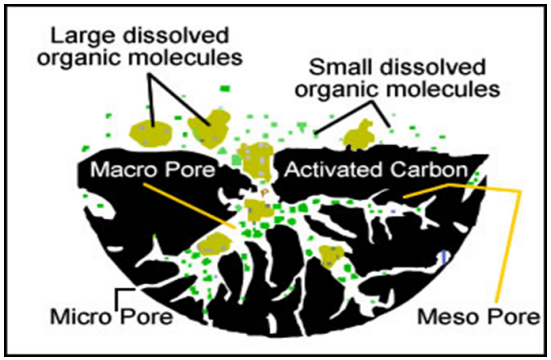
Carbon filter



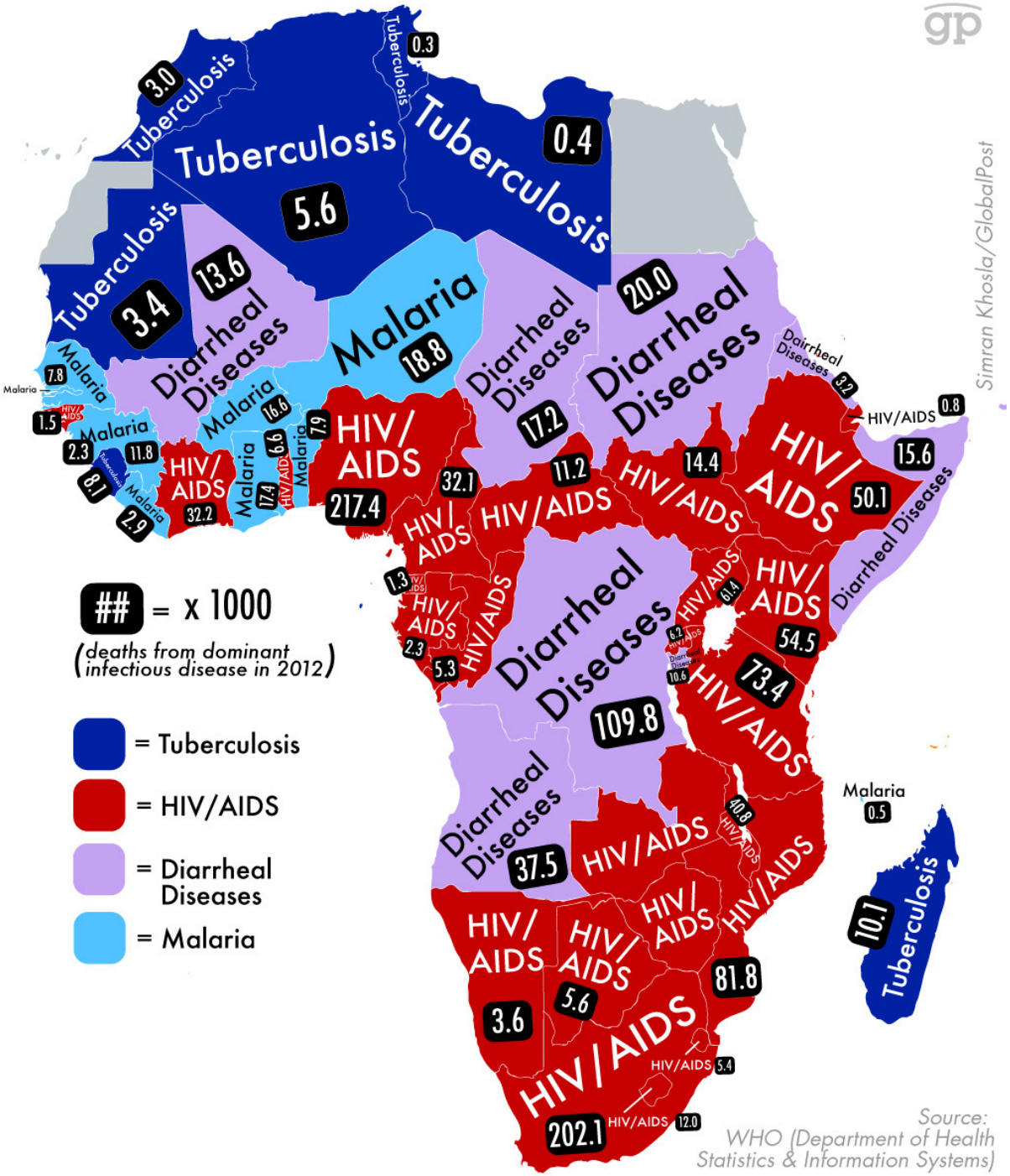
1) Chemical bonding



2) Attracting molecules



Disease map


Tuberculosis
3.0
Tuberculosis
0.3
Tuberculosis
5.6
Tuberculosis
0.4
Tuberculosis
3.4
13.6
Diarrheal Diseases
Malaria
18.8
Diarrheal Diseases
17.2
Diarrheal Diseases
20.0
Malaria
7.8
Malaria
1.5
HIV/AIDS
Malaria
2.3
11.8
Malaria
16.6
HIV/AIDS
32.2
Malaria
17.4
HIV/AIDS
6.6
Malaria
7.9
HIV/AIDS
217.4
32.1
HIV/AIDS
11.2
HIV/AIDS
14.4
HIV/AIDS
50.1
Dairrheal Diseases
3.2
HIV/AIDS
0.8
15.6
Diarrheal Diseases
8.1
2.9
1.3
HIV/AIDS
2.3
5.3
HIV/AIDS
Diarrheal Diseases
109.8
HIV/AIDS
61.4
6.2
10.6
HIV/AIDS
54.5
73.4
HIV/AIDS
Diarrheal Diseases
37.5
HIV/AIDS
40.8
HIV/AIDS
HIV/AIDS
HIV/AIDS
HIV/AIDS
5.6
81.8
3.6
HIV/AIDS
HIV/AIDS
5.4
HIV/AIDS
202.1
HIV/AIDS
12.0
Malaria
0.5
Tuberculosis
10.1
= x 1000
(deaths from dominant infectious disease in 2012)
= Tuberculosis
= HIV/AIDS
= Diarrheal Diseases
= Malaria
gp
Simran Khosla/GlobalPost
Source:
WHO (Department of Health Statistics & Information Systems)

Thank you

LeeWoon Jang
(KU Leuven)