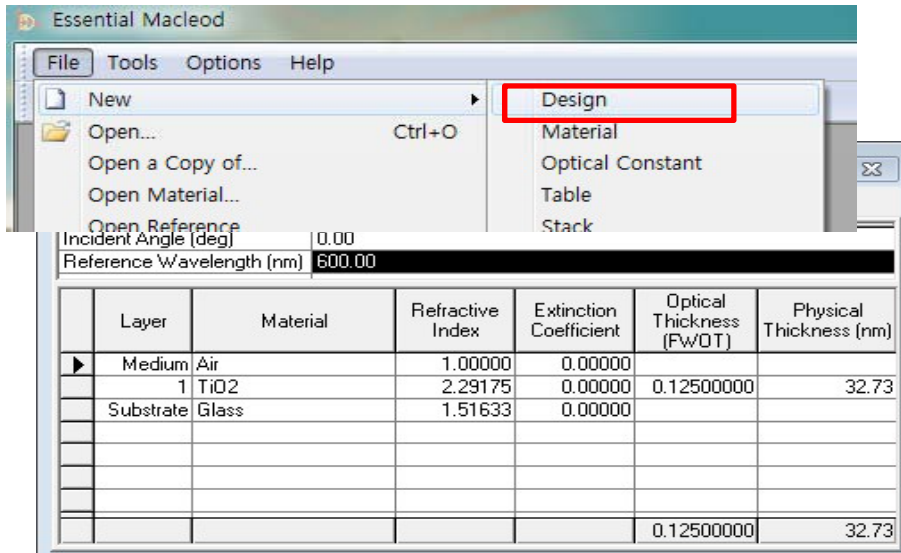


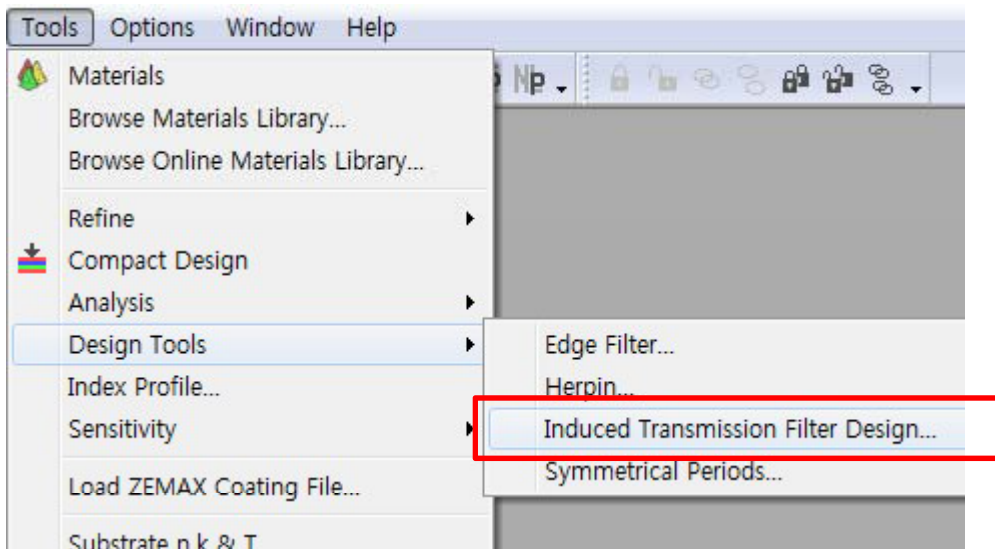
# IT Filter 설계

분석 지점으로부터 잠재적 투과율과 흡수율 계산을 통한 Induced Transmission Filter 설계

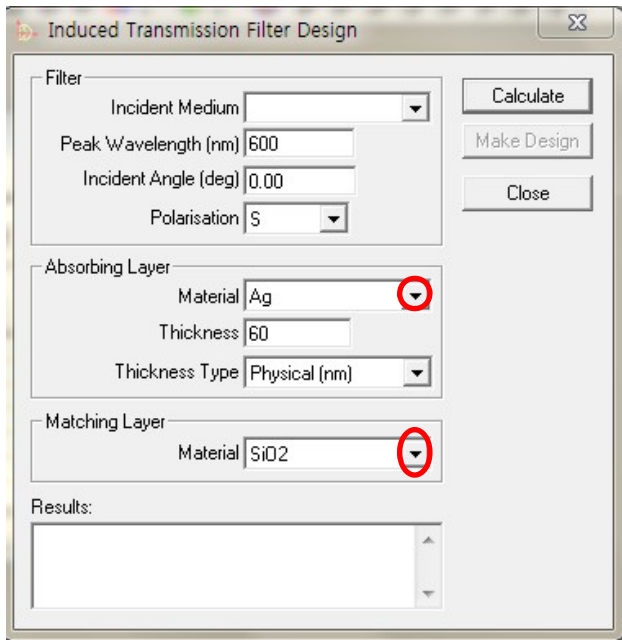
## File > New > Design



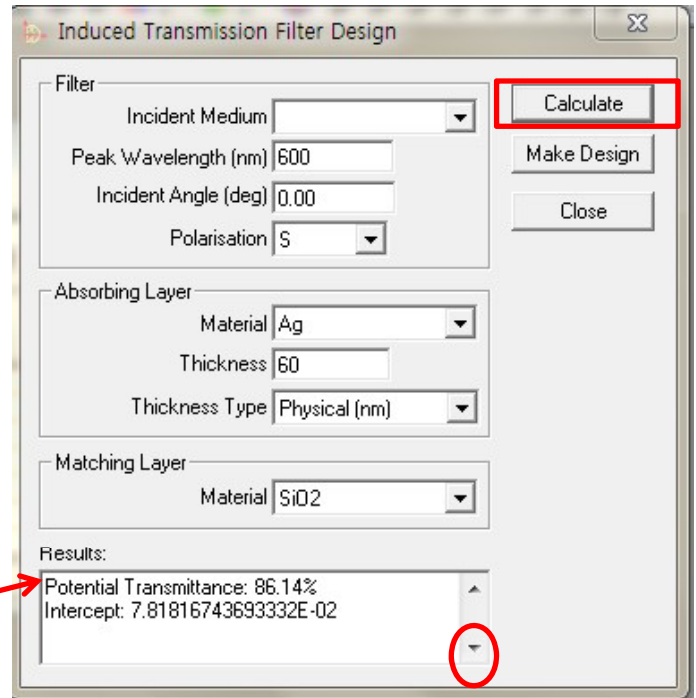
## Tools > Design Tools > Induced Transmission Filter Design.....



설계 창에 아래와 같이 입력



"Calculate " 실행



결과 값 표시됨

마우스로 전체 결과 값을  
선택, 복사 ( Control + c )

복사된 내용

Potential Transmittance: 86.14%

Intercept: 7.81816743693332E-02

Absorbing Layer n: 0.0600

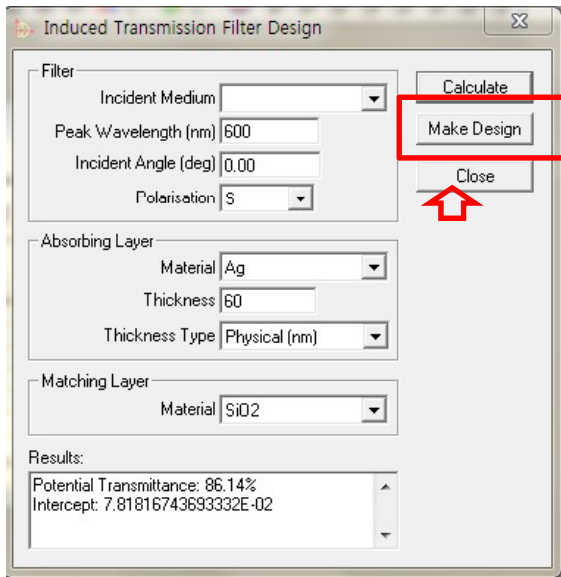
Absorbing Layer k: 3.7499998

Physical Thickness (nm): 60.00

Optimum exit admittance: 0.68907 + i4.02380

Matching Layer Refractive Index: 1.4581

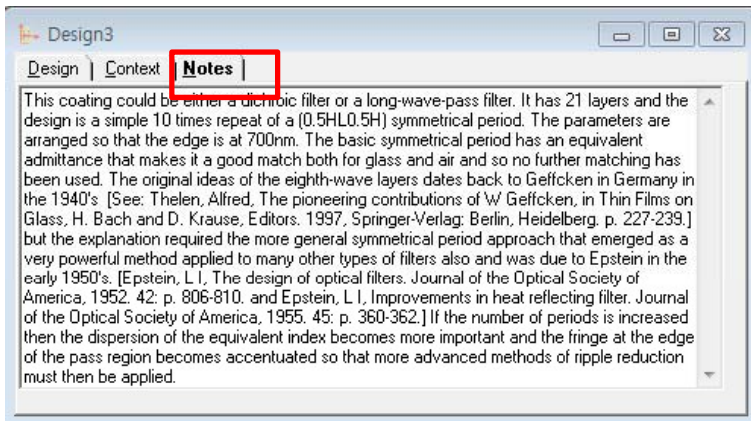
Optical Thickness: 0.19596602



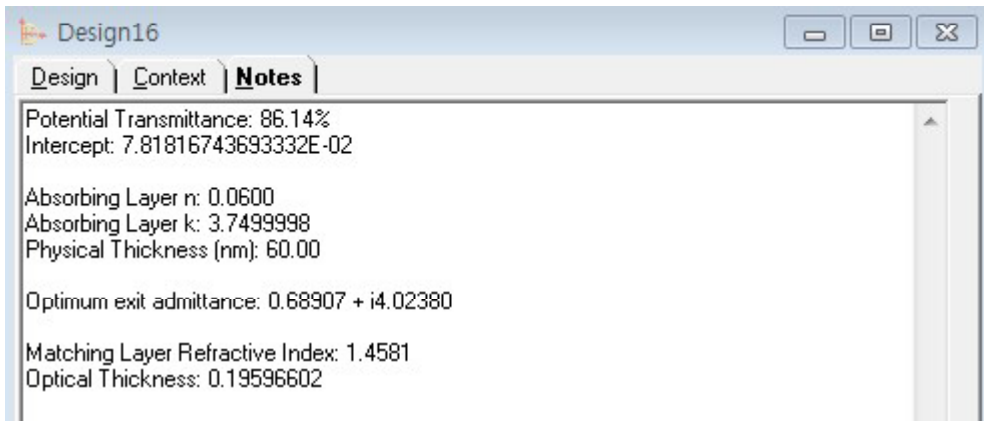
“Make Design” 선택 후 “Close”  
해당 Design File 생성

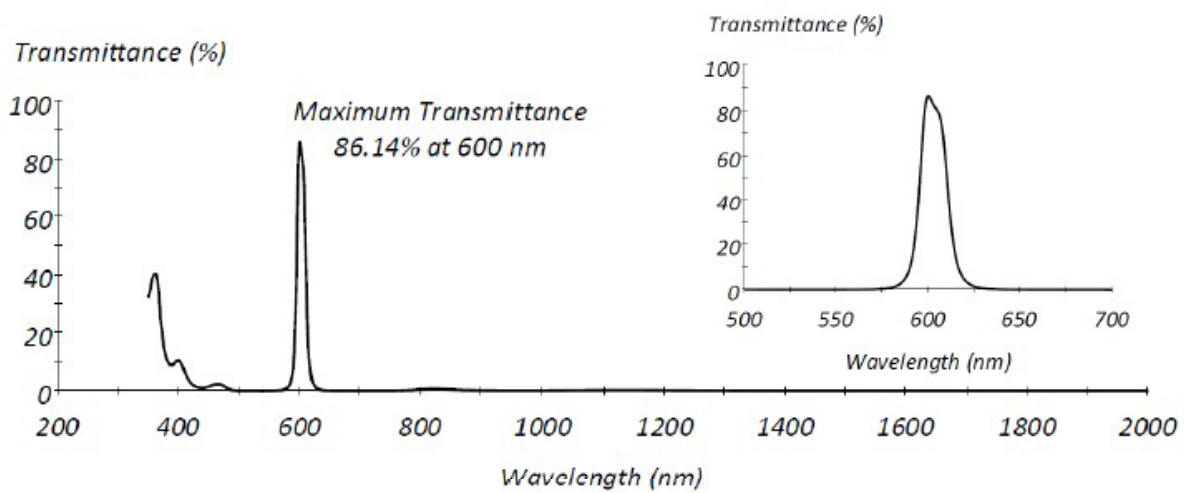
| Layer     | Material | Refractive Index | Extinction Coefficient | Optical Thickness (FWOT) | Physical Thickness (nm) |
|-----------|----------|------------------|------------------------|--------------------------|-------------------------|
| Medium    | Air      | 1.00000          | 0.00000                |                          |                         |
| 1         | SiO2     | 1.45808          | 0.00000                | 0.19596602               | 80.64                   |
| 2         | Ag       | 0.06000          | 3.75000                | 0.00600000               | 60.00                   |
| 3         | SiO2     | 1.45808          | 0.00000                | 0.19596602               | 80.64                   |
| Substrate | Glass    | 1.51633          | 0.00000                |                          |                         |
|           |          |                  |                        | 0.39793204               | 221.28                  |

“Note” 클릭, 보이는 내용을 모두 삭제



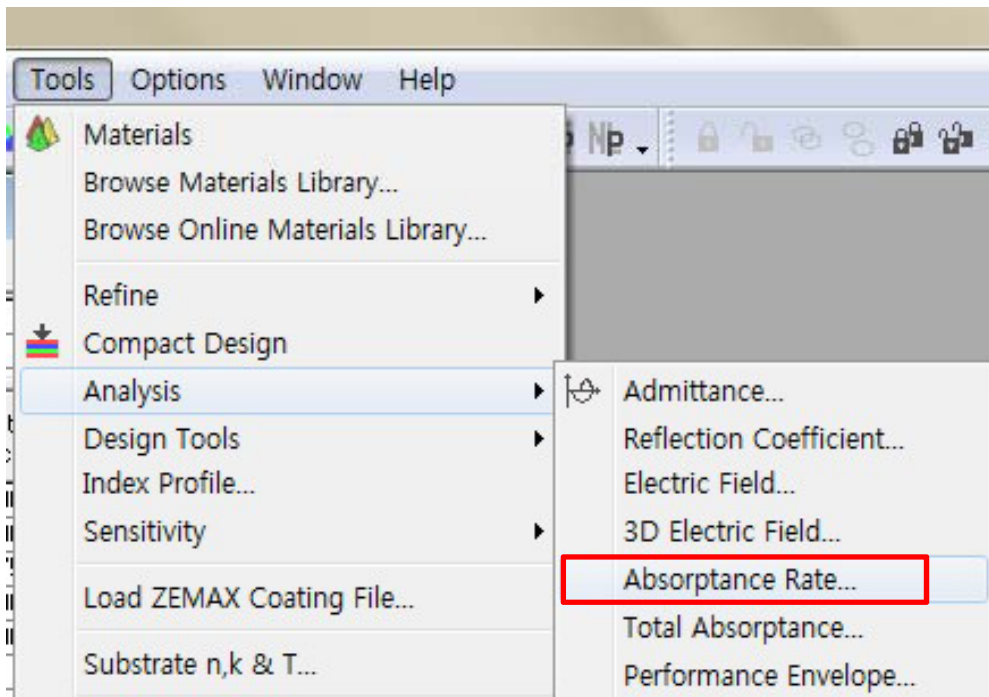
“Note” 에 복사한 내용을 “붙여 넣기 ( Control + v ) ”

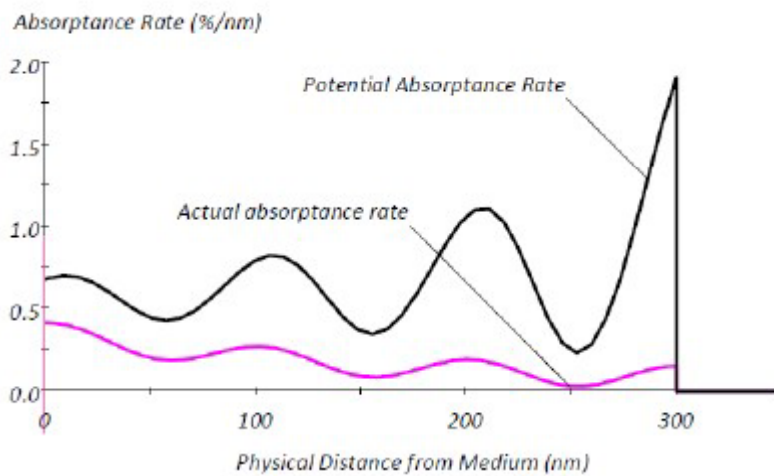
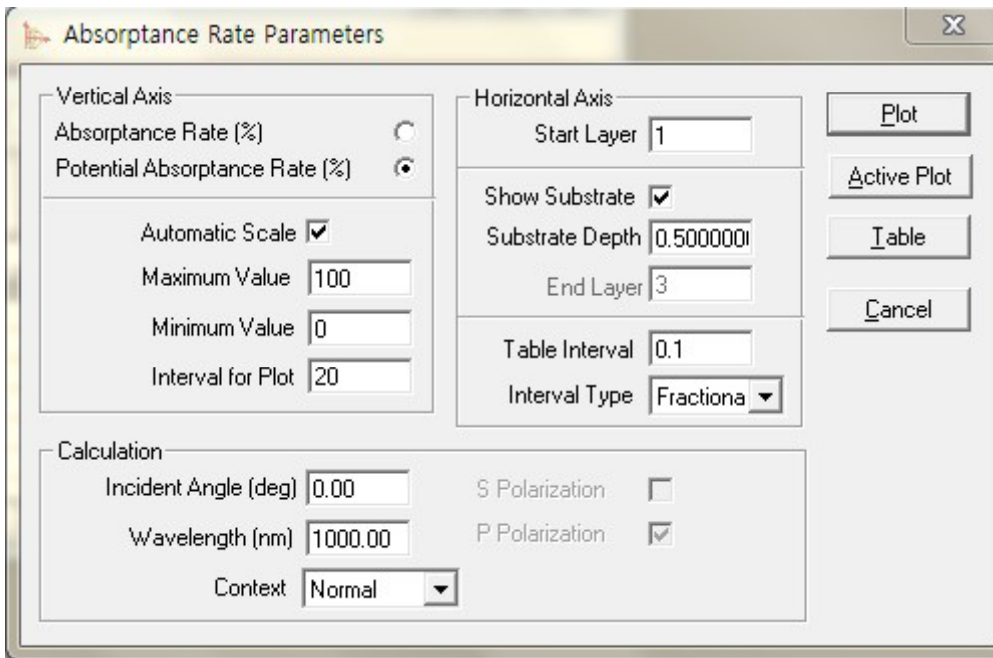




Induced Transmittance Filter 최종 설계 :  
 N-BK7 | (HL)^3 0.7354H 1.1857L 0.7839L Ag 60nm 0.7839L .1857L 0.7354H (LH)^3 | N-BK7

## Tools > Analysis > Absorptance Rate





300nm Germanium Film의 1,000nm에서 Potential absorptance rate와 absorptance rate