

```

      PROGRAM etotau
*****
* Conversion of dielectric functions to                               *
* frequency dependent 1/tau, m/m*                                   *
* from standard input it reads:                                     *
* input filename                                                    *
* epsilon infinity, plasma-frequency                               *
* the input file must have the format x eps1 eps2                  *
*****
      REAL X(100000),e1,e2,gam,nup,msm,epsinf
      complex epsil(100000),einv
      INTEGER I,mm
      character*40 flin
      mm=100000
      read(*,'(a40)') flin
      read(*,*) epsinf,nup
      open(24,file=flin)
      do 10 i=1,mm
         READ(24,*,END=11) X(i),e1,e2
         epsil(i)=cmplx(e1,e2)
10      continue
11      mm=i-1
         do 25 i=1,mm
            einv=1./(epsil(i)-epsinf)
            gam=-nup*nup*aimag(einv)/x(i)
            msm=-nup*nup*real(einv)/(x(i)*x(i))
            write(*,*) x(i),gam,msm
25      continue
      END

```