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      PROGRAM etors
*****
* Conversion of dielectric functions to p-reflectivity.
* from standard input it reads
* input file name
* angle of incidence in degree
* the input file must have the format x eps1 eps2
* The output comes as: x rs
*****
      REAL X(100000),e1,e2,angle,cst,snt2
      complex epsil(100000),cn,cr,eps2,cn2,cr2
      INTEGER I,mm
      character*40 flin
      read(*,'(a40)') flin
      open(23,file=flin)
      read(*,*) angle
      angle=angle*3.14159265/180
      cst=cos(angle)
      snt2=1-cst*cst
      mm=100000
      do 10 i=1,mm
        READ(23,*,END=11) X(i),e1,e2
        epsil(i)=cplx(e1,e2)
10      continue
      close(23)
11      mm=i-1
      do 25 i=1,mm
        cn=csqrt(epsil(i)-snt2)
        cr=(cst-cn)/(cst+cn)
        write(*,*) x(i),cabs(cr)**2
25      continue
      END

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