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TABULATED RECEIVING AND TRANSMITTING
CHARACTERISTICS OF CYLINDRICAL ANTENNAS

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Abstract

Monopole and center-driven dipole cylindrical antennas can be electrically represented by a current generator of magnitude equal to the short-circuit antenna current and a parallel impedance equal to the open-circuit antenna impedance. In this report, tables of antenna impedance and short-circuit current (with antenna height and incident field normalized out) are provided over a wide range of frequencies and antenna "fatness" characteristics.

Using these data and the equivalent circuit, the CW transmitting and receiving characteristics of dipole or monopole antennas can be determined over the frequency range covered, and transient response can also be calculated.

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Tabulated Receiving and Transmitting Characteristics of Cylindrical Antennas

Introduction

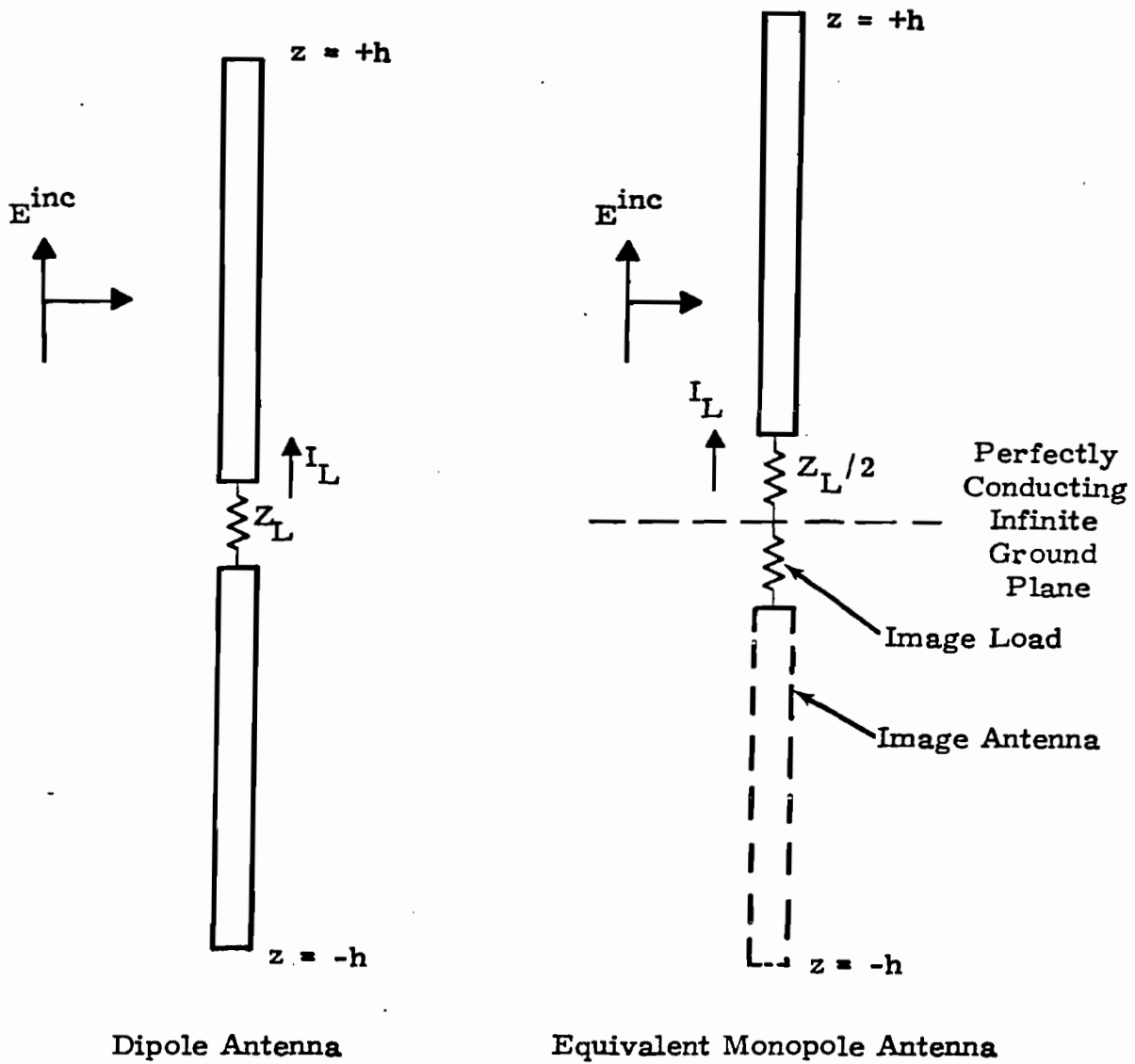
One of the fundamental problems in antenna theory is to determine the receiving and transmitting characteristics of monopole and center-driven dipole cylindrical antennas without end caps. It is common practice to represent these antennas by an equivalent current source in parallel with a source impedance. The values for this equivalent circuit (to be examined in more detail in the next section) are determined by the short-circuit antenna current and the open-circuit antenna impedance.

The short-circuit current is calculated in this report for an incident plane-wave field with the electric field vector parallel to the axis of the cylinder (Figure 1). This value is then normalized to a "transfer function" by dividing by the magnitude of the electric field and the height of the antenna.

Although current transfer functions and antenna impedances have been previously tabulated,^{1,2} this report provides a new tabulation based on present state-of-the-art theoretical formulation and numerical analysis techniques.³ As a result, more accuracy is obtained (within approximately one percent); and data are presented for a large range of "fatness factors" ($\Omega = 2$ & $2h/a = 5$ through 20) and frequencies ($k_0 h = 0.05$ through 18.35, depending on Ω).^{*}

The use of the tabulated data to derive receiving characteristics is explained in the next section, followed by elucidation on obtaining transmitting characteristics.

*Note that in the expressions above h is monopole length or dipole half-length, a is the cylinder radius and k_0 is the propagation constant, ω/c (the ratio of radian frequency to the speed of propagation).



$$I_L(\text{dipole}) = I_L(\text{monopole})$$

Figure 1. A Dipole Antenna Model and Its Equivalent Monopole

The results are applicable to dipole or monopole antennas over ground planes because of the straightforward relation between the two. As shown in Figure 1, if the load impedance of the monopole is half that of the dipole, the load voltage of the monopole is equal to half the load voltage of the dipole, or

$$v_{oc} \text{ (monopole)} = 1/2 v_{oc} \text{ (dipole)}$$

and

$$Z_A \text{ (monopole)} = 1/2 Z_A \text{ (dipole)}$$

Therefore, the short-circuit current of the monopole and dipole are equal. These relations make it possible to apply the tabulated data of a dipole to a monopole antenna problem.

Receiving Characteristics

The receiving characteristics of dipole and monopole antennas can be obtained by using an equivalent circuit involving the current due to the exciting field, the antenna impedance, and the load.

The equivalent circuit for a loaded dipole is shown in Figure 2 where $(I_{sc}(\omega)/hE^{inc})$ is the normalized short-circuit current transfer function of the antenna excited by a plane-wave electric field, and $Z_A(\omega)$ is the input impedance of the antenna.

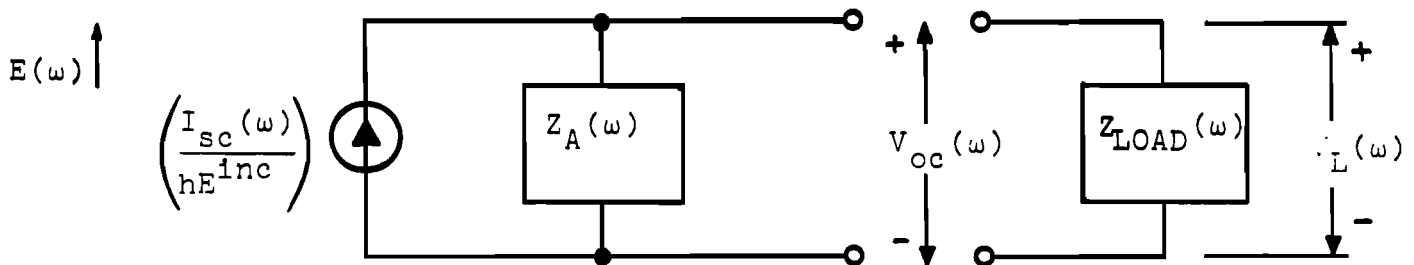


Figure 2. Equivalent Circuit for a Loaded Dipole

The load voltage, V_L , for a dipole of half-length, h , when excited by an arbitrary electric field, $E(\omega)$ is:

$$V_L(\omega) = -E(\omega)h \left(\frac{I_{sc}(\omega)}{hE^{inc}} \right) \left(\frac{Z_A(\omega)Z_L(\omega)}{Z_A(\omega) + Z_L(\omega)} \right) \quad (1)$$

and $v_L(t)$ is found by taking the inverse Fourier transform of (1).

Therefore,

$$\begin{aligned} v_L(t) &= \frac{+2}{\pi} \int_0^{\infty} \text{Im} \left\{ E(\omega)h \left(\frac{I_{sc}(\omega)}{hE^{inc}} \right) \left(\frac{Z_A(\omega)Z_L(\omega)}{Z_A(\omega) + Z_L(\omega)} \right) \right\} \sin \omega t \, d\omega \\ &= \frac{-2}{\pi} \int_0^{\infty} \text{Re} \left\{ E(\omega)h \left(\frac{I_{sc}(\omega)}{hE^{inc}} \right) \left(\frac{Z_A(\omega)Z_L(\omega)}{Z_A(\omega) + Z_L(\omega)} \right) \right\} \cos \omega t \, d\omega \end{aligned}$$

Figure 3 shows $v_L(t)$ for several values of resistive loading where $E(\omega)$ is a unit step, $h = 1$, and $\Omega = 10$. Normalized time, ct/h is used, where c is the speed of light. Figure 3 reveals the high-impedance character of the dipole.

Derivation of the Far-Zone Field from the Receiving Characteristics

The far-zone transmitted field due to antennas can be obtained by applying the principal of reciprocity to the receiving characteristics. The technique is explained in this section.

Assume that a dipole antenna is excited by a distant point-dipole source located at $r = r'$, $\theta = \pi/2$ (Figure 4). The

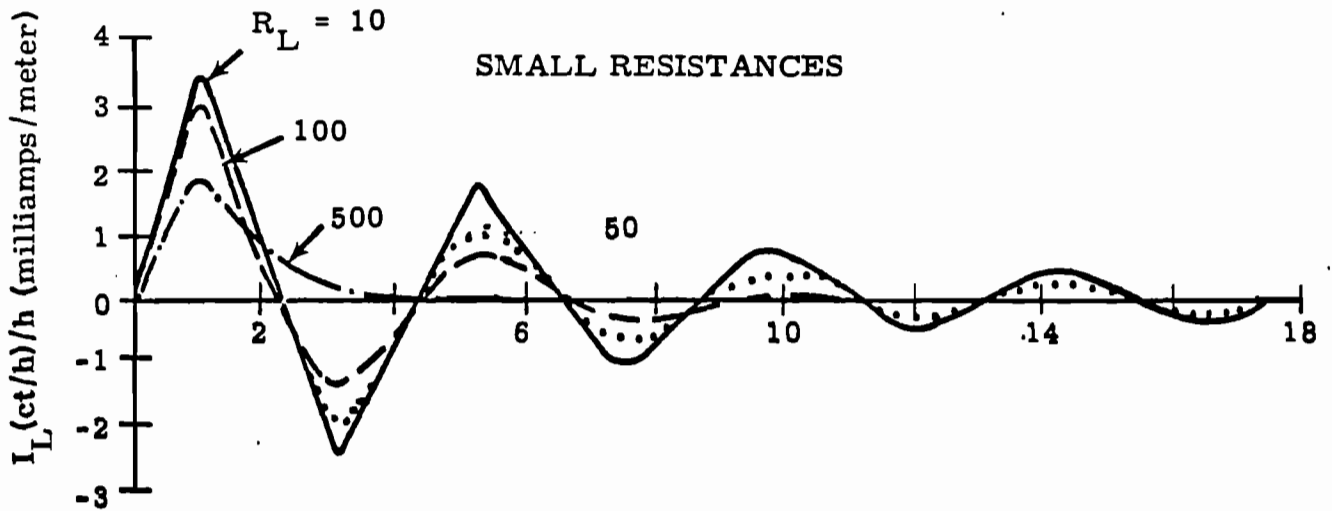
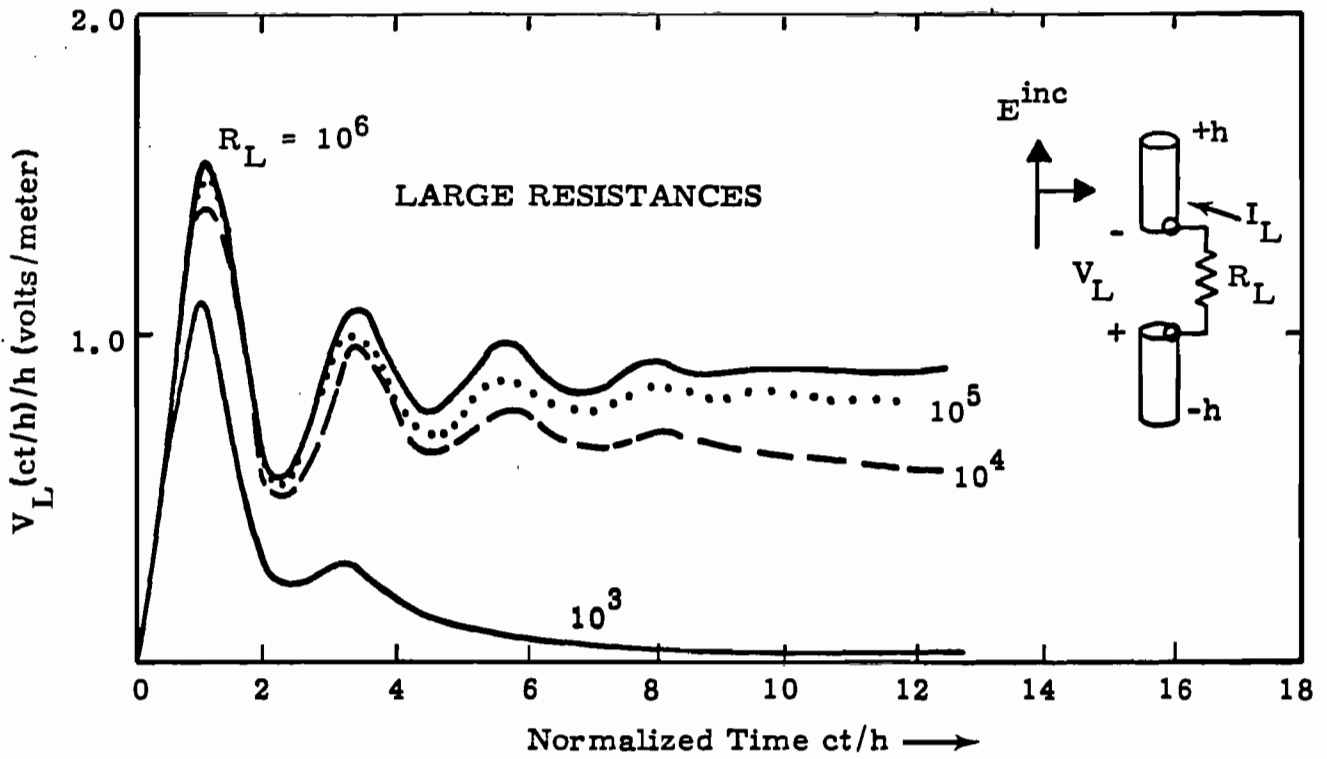


Figure 3. Example Normalized Response of a Loaded Dipole Antenna Excited by a Unit Step Electric Field Transient, $\Omega = 10$, $h = 1$

open-circuit voltage observed from 1 to 2 due to the point-dipole source is

$$V_{oc}(\omega) = - \int_1^2 \vec{E}^b \cdot d\vec{l}$$

where E^b is the incident plus the scattered field at the dipole antenna. Assume now that a unit-current source J^a excites the dipole antenna. By the reciprocity theorem,⁴ we can write:

$$\int \vec{E}^b \cdot \vec{J}^a dv = \int \vec{E}^a \cdot \vec{J}^b dv$$

where E^a is the field at the point dipole source due to the dipole antenna source J_a^b , and the integration is over the volume containing the sources.

For unit sources

$$\int_2^1 \vec{E}^b \cdot d\vec{l} = \int \vec{E}^a \cdot \delta(r - r') \vec{a}_z dr = \vec{E}^a(r') \cdot \vec{a}_z$$

so that

$$V_{oc}(\omega) = - \int_1^2 \vec{E}^b \cdot d\vec{l} = -\vec{E}^a(r') \cdot \vec{a}_z = -E_z^a(r')$$

But $V_{oc}(\omega)$ can be obtained from the receiving characteristics, so that

$$E_z^a(\omega) = - \left(\frac{I_{sc}(\omega)}{hE_{inc}^b} \right) Z_A(\omega) E_{inc}^b(\omega)h$$

and

$$E_{inc}^b(\omega) = j \frac{\omega \mu_0}{4\pi r} e^{-jk_0 r}$$

where $E_{inc}^b(\omega)$ is the field due to the unit point dipole source γ^b , μ_0 is the permeability of free space and $k_0 = \omega/c$. For a dipole antenna current input not constrained to unity, we have

$$E_z^a(\omega) = -I_{in}(\omega) Z_a(\omega) h \left(\frac{I_{sc}(\omega)}{h E_{inc}^b} \right) \left(j \frac{\omega \mu_0}{4\pi r} e^{-jk_0 r} \right)$$

where $E_z^a(\omega)$ is the electric field at distance r from the dipole antenna and where r is in the far-field region.

Summary

Tabulated values of the transfer function $(I_{sc}(\omega)/h E_{inc}^b)$ and $Z_a(\omega)$ are provided in the Appendix. The tabulated values are for $\Omega = 5, 6, 7, 10, 15$ and 20 , where $\Omega = 2 \ln(2h/a)$, and a is the radius of the antenna. k_0 was computed to the largest value consistent with reasonable accuracy, and ω was normalized to $k_0 h$.

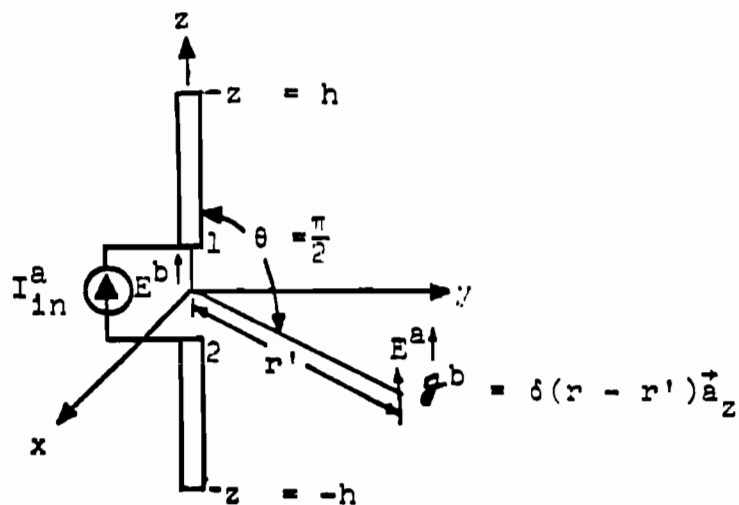


Figure 4. Geometry for Far-Zone Excitation

References

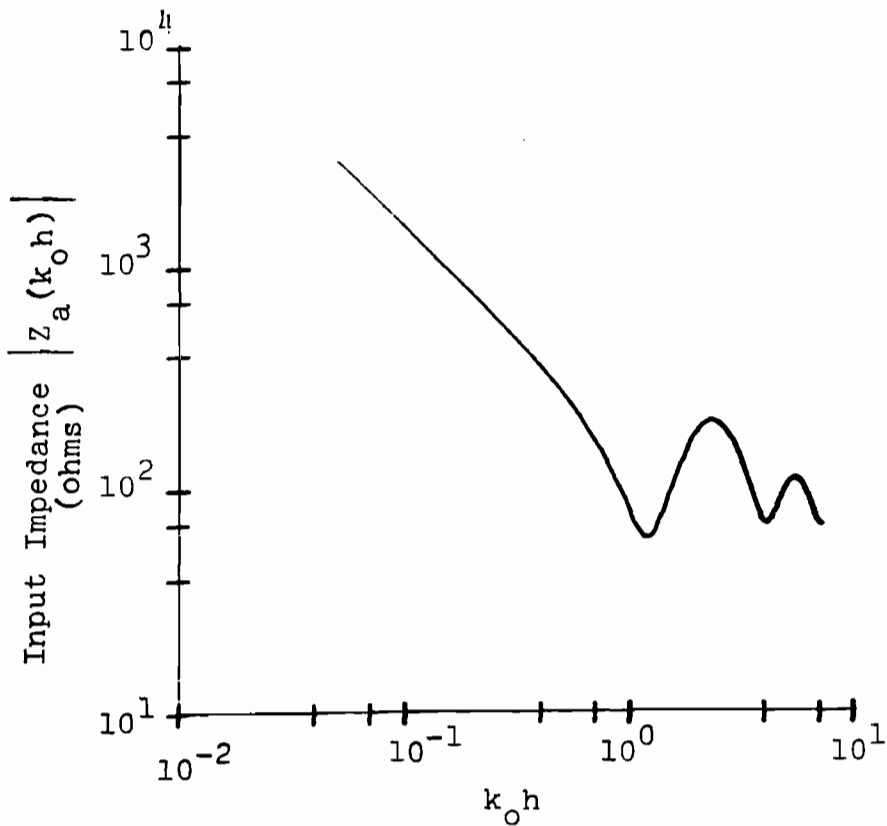
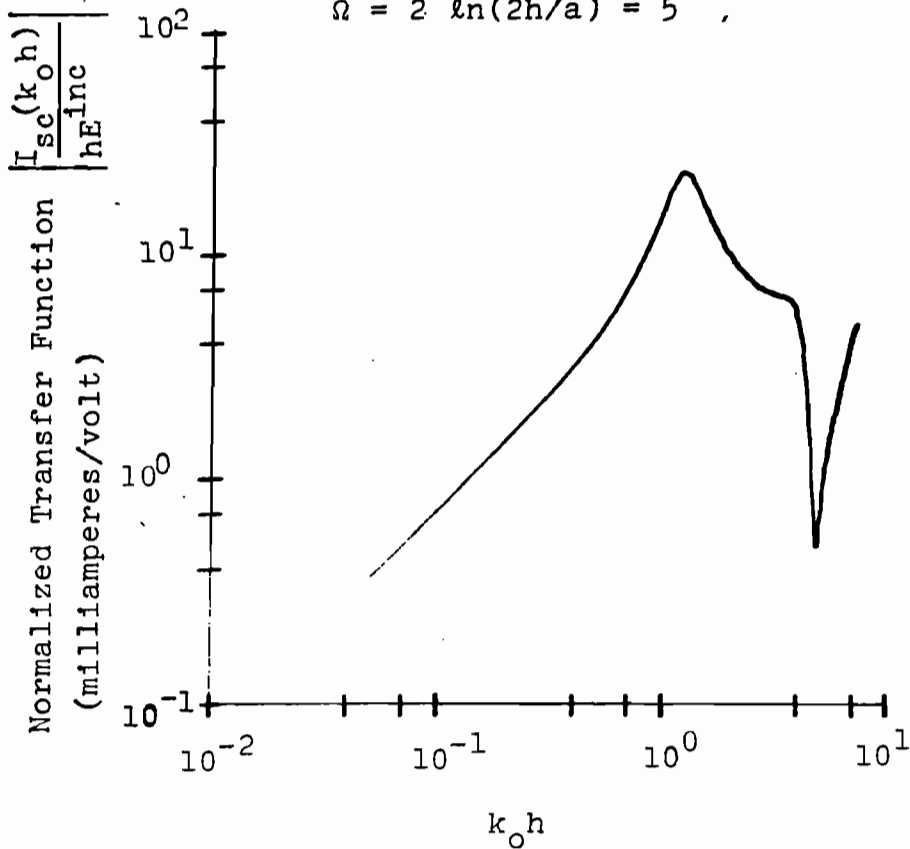
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Appendix

The following tables list the computed values of the normalized transfer function, $I_{sc}(k_0 h)/(hE^{inc})$, in milliamperes/volt, and transmitting antenna impedance, $Z(k_0 h)$, in ohms. The values of $\Omega = 2 \ln(2h/a)$ considered here are 5, 6, 7, 10, 15, 20.

Preceding each list are plots of the magnitude of the transfer function and impedance. Note that changes in the data from one value of Ω to another are small and thus errors encountered from using the tabulated data near the exact value of Ω will be small.

$$\Omega = 2 \ln(2h/a) = 5$$



$$\Omega = 2 \ln(2h/a) = 5$$

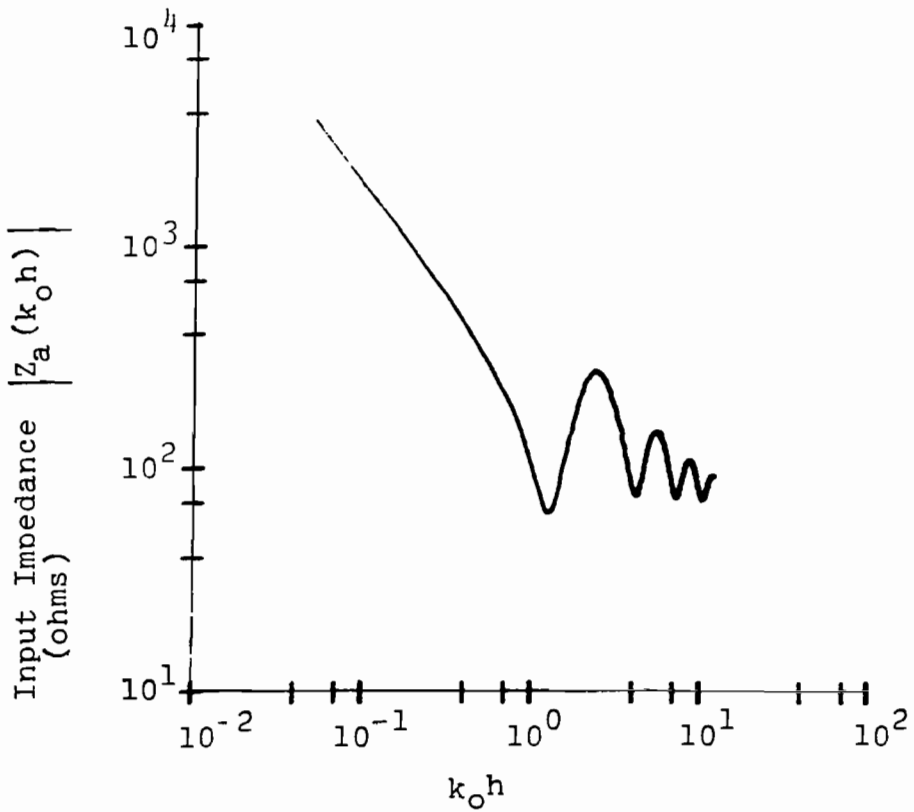
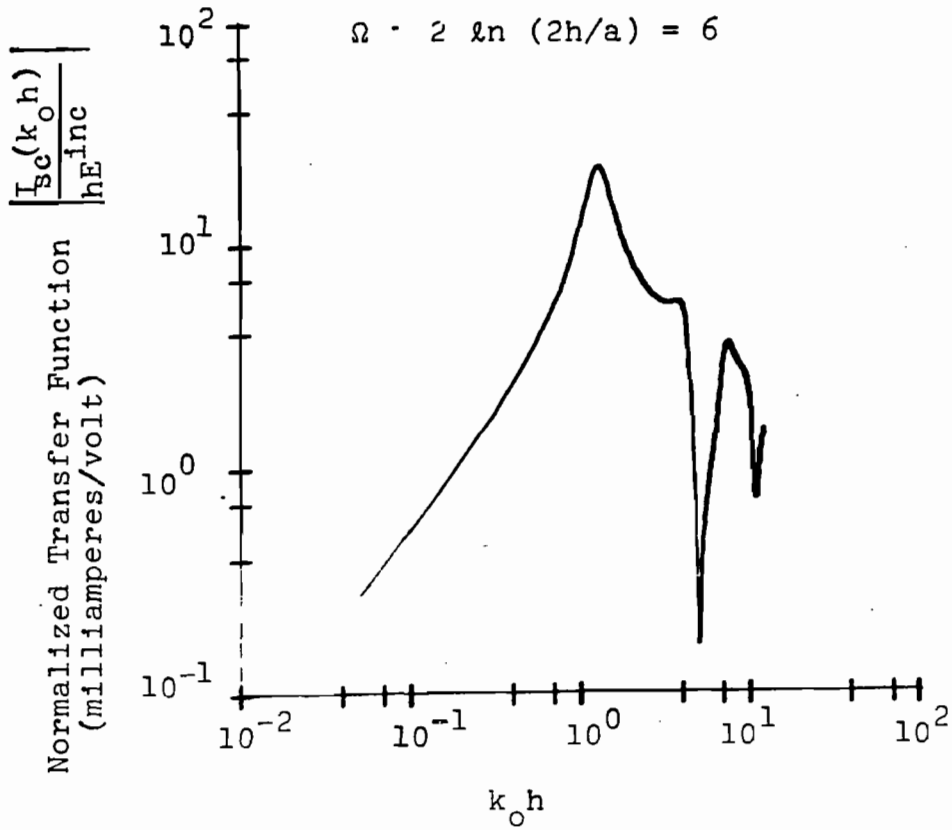
$k_0 h$	$\text{Re}\{I_a(k_0 h)/hE^{inc}\}$	$\text{Im}\{I_a(k_0 h)/hE^{inc}\}$	$\text{Re}\{Z_a(k_0 h)\}$	$\text{Im}\{Z_a(k_0 h)\}$
0.0500	9.791641430E-06	3.578789242E-01	5.094828690E-02	-3.043387231E+03
0.1000	1.581779482E-04	7.194066620E-01	2.401216136E-01	-1.516440049E+03
0.1500	8.137606873E-04	1.088338459E+00	5.417591090E-01	-1.004036783E+03
0.2000	2.630908542E-03	1.468647396E+00	9.676885723E-01	-7.461603891E+02
0.2500	6.615213184E-03	1.864645891E+00	1.521515347E+00	-5.898891301E+02
0.3000	1.422689358E-02	2.281122672E+00	2.207905185E+00	-4.843941696E+02
0.3500	2.753633645E-02	2.723500730E+00	3.022245362E+00	-4.078728351E+02
0.4000	4.945404295E-02	3.198021352E+00	4.004538382E+00	-3.495988914E+02
0.4500	8.406947931E-02	3.711957522E+00	5.128503993E+00	-3.032695544E+02
0.5000	1.371521330E-01	4.273854698E+00	6.415629816E+00	-2.653839246E+02
0.5500	2.168971311E-01	4.893784229E+00	7.876753735E+00	-2.336298693E+02
0.6000	3.250423122E-01	5.583565790E+00	9.524112863E+00	-2.064673123E+02
0.6500	5.085500360E-01	6.356852348E+00	1.137140110E+01	-1.828316600E+02
0.7000	7.621389537E-01	7.228837245E+00	1.343382127E+01	-1.619645560E+02
0.7500	1.132057806E+00	8.215063307E+00	1.572810923E+01	-1.423125470E+02
0.8000	1.671539357E+00	9.329246141E+00	1.827256046E+01	-1.264639943E+02
0.8500	2.458103524E+00	1.057092486E+01	2.108699583E+01	-1.111079136E+02
0.9000	3.601508850E+00	1.191986489E+01	2.419269975E+01	-9.702905491E+01
0.9500	5.246717161E+00	1.329879979E+01	2.761222653E+01	-8.398370557E+01
1.0000	7.555125440E+00	1.451283822E+01	3.136926341E+01	-7.189768282E+01
1.0500	1.062845408E+01	1.521882419E+01	3.548817085E+01	-6.064754055E+01
1.1000	1.433765538E+01	1.489579523E+01	3.999351434E+01	-5.015949822E+01
1.1500	1.812134700E+01	1.306604619E+01	4.490932652E+01	-4.038412631E+01
1.2000	2.195252296E+01	9.727444620E+00	5.025819282E+01	-3.129344373E+01
1.2500	2.539435747E+01	5.625323992E+00	5.605982117E+01	-2.287871034E+01
1.3000	2.812719543E+01	1.720055145E+00	6.222988769E+01	-1.514884362E+01
1.3500	2.972939482E+01	-1.254535505E+00	6.907729872E+01	-8.129151660E+00
1.4000	1.902546366E+01	-3.483727800E+00	7.630250908E+01	-1.860032655E+00
1.4500	1.721138289E+01	-4.832317322E+00	8.399429066E+01	3.604500523E+00
1.5000	1.555047410E+01	-5.624891935E+00	9.212720024E+01	8.199187417E+00
1.5500	1.410544362E+01	-6.049819712E+00	1.006573017E+02	1.184949303E+01
1.6000	1.287663644E+01	-6.241013719E+00	1.095129576E+02	1.447623004E+01
1.6500	1.184050110E+01	-6.287120903E+00	1.186265507E+02	1.600006649E+01
1.7000	1.096761811E+01	-6.245068876E+00	1.278627107E+02	1.634789778E+01
1.7500	1.023002120E+01	-6.150909611E+00	1.370979095E+02	1.545971222E+01
1.8000	9.603592400E+00	-6.027449750E+00	1.461366864E+02	1.329814892E+01
1.8500	9.068400897E+00	-5.889084496E+00	1.548245693E+02	9.953608363E+00
1.9000	8.608286258E+00	-5.744904253E+00	1.629525127E+02	5.155231323E+00
1.9500	8.210243308E+00	-5.600623723E+00	1.703192511E+02	-7.256062271E-01
2.0000	7.863809568E+00	-5.459807028E+00	1.767282001E+02	-7.672792937E+00
2.0500	7.560530756E+00	-5.324639483E+00	1.820082917E+02	-1.552599893E+01
2.1000	7.293632405E+00	-5.196421119E+00	1.860223028E+02	-2.408726432E+01
2.1500	7.057483502E+00	-5.075884513E+00	1.896715432E+02	-3.313022030E+01
2.2000	6.847531605E+00	-4.963401559E+00	1.929211190E+02	-4.242782649E+01
2.2500	6.659996342E+00	-4.859110782E+00	1.897472841E+02	-5.170708633E+01
2.3000	6.491727674E+00	-4.763046713E+00	1.882382391E+02	-6.075099682E+01
2.3500	6.340078957E+00	-4.675110230E+00	1.854843480E+02	-6.935272442E+01
2.4000	6.202806625E+00	-4.595233167E+00	1.816201816E+02	-7.733835528E+01
2.4500	6.077990204E+00	-4.523274922E+00	1.768032354E+02	-8.457215215E+01
2.5000	5.963967908E+00	-4.459138212E+00	1.712030136E+02	-9.095792565E+01
2.5500	5.859284035E+00	-4.402736294E+00	1.6499210894E+02	-9.643734237E+01
2.6000	5.762645288E+00	-4.354009827E+00	1.582329833E+02	-1.009859515E+02
2.6500	5.672883781E+00	-4.312932208E+00	1.513822268E+02	-1.046078386E+02
2.7000	5.588924915E+00	-4.279513281E+00	1.442797152E+02	-1.073260965E+02
2.7500	5.509758618E+00	-4.253800207E+00	1.371395005E+02	-1.091917909E+02
2.8000	5.434412757E+00	-4.235872692E+00	1.300642469E+02	-1.102574695E+02

$$\Omega = 2 \ln(2h/a) = 5$$

$k_0 h$	$\text{Re} \left\{ I_a(k_0 h) / h E_1^{inc} \right\}$	$\text{Im} \left\{ I_a(k_0 h) / h E_1^{inc} \right\}$	$\text{Re} \left\{ Z_a(k_0 h) \right\}$	$\text{Im} \left\{ Z_a(k_0 h) \right\}$
2.8500	5.361927691E+00	-4.225971340E+00	1.221413341E+02	-1.105629465E+02
2.9000	5.291330882E+00	-4.222934921E+00	1.164373694E+02	-1.102357967E+02
2.9500	5.221611095E+00	-4.230255061E+00	1.100101493E+02	-1.092813622E+02
3.0000	5.151690973E+00	-4.245037910E+00	1.038923743E+02	-1.077863136E+02
3.0500	5.080397898E+00	-4.268497423E+00	9.811992058E+01	-1.058127259E+02
3.1000	5.006432471E+00	-4.300836655E+00	9.269372733E+01	-1.034179220E+02
3.1500	4.928334759E+00	-4.342220822E+00	8.767382555E+01	-1.006613034E+02
3.2000	4.844448916E+00	-4.392739278E+00	8.304735770E+01	-9.759478525E+01
3.2500	4.752997763E+00	-4.452352748E+00	7.881378357E+01	-9.426304321E+01
3.3000	4.651500582E+00	-4.520821427E+00	7.497864800E+01	-9.071192301E+01
3.3500	4.537849642E+00	-4.597609152E+00	7.154630144E+01	-8.698342501E+01
3.4000	4.409204550E+00	-4.681758944E+00	6.849747354E+01	-8.311189471E+01
3.4500	4.262567059E+00	-4.771736806E+00	6.583554193E+01	-7.913411771E+01
3.5000	4.094752100E+00	-4.865244834E+00	6.355348060E+01	-7.508250216E+01
3.5500	3.902531268E+00	-4.959012806E+00	6.164281781E+01	-7.098741643E+01
3.6000	3.682899450E+00	-5.048591447E+00	6.009531706E+01	-6.687641155E+01
3.6500	3.433460930E+00	-5.129121895E+00	5.892543877E+01	-6.277135505E+01
3.7000	3.152959449E+00	-5.190638635E+00	5.804073333E+01	-5.871664938E+01
3.7500	2.841941547E+00	-5.227539192E+00	5.751498033E+01	-5.471749008E+01
3.8000	2.503439309E+00	-5.229758316E+00	5.730522423E+01	-5.080235247E+01
3.8500	2.143542422E+00	-5.188281356E+00	5.729758997E+01	-4.699270031E+01
3.9000	1.771613672E+00	-5.095434954E+00	5.777726227E+01	-4.330913555E+01
3.9500	1.399920208E+00	-4.946295101E+00	5.842871463E+01	-3.977042677E+01
4.0000	1.042555477E+00	-4.739947462E+00	5.933520283E+01	-3.639461973E+01
4.0500	7.137483923E-01	-4.480189900E+00	6.047929502E+01	-3.319860785E+01
4.1000	4.259244832E-01	-4.175363520E+00	6.183298621E+01	-3.019781358E+01
4.1500	1.880317815E-01	-3.837267255E+00	6.340184266E+01	-2.740343547E+01
4.2000	4.586705907E-02	-3.479441921E+00	6.514069744E+01	-2.483322493E+01
4.2500	-1.243707999E-01	-3.115308701E+00	6.703682049E+01	-2.249411993E+01
4.3000	-2.025402824E-01	-2.756636243E+00	6.906673622E+01	-2.039843363E+01
4.3500	-2.361799237E-01	-2.412611522E+00	7.121108658E+01	-1.854929221E+01
4.4000	-2.329518191E-01	-2.082545397E+00	7.344533038E+01	-1.695410744E+01
4.4500	-2.002624516E-01	-1.791068233E+00	7.574641359E+01	-1.561635002E+01
4.5000	-1.460203851E-01	-1.518606654E+00	7.809173500E+01	-1.453895835E+01
4.5500	-7.621248176E-02	-1.271954629E+00	8.045678916E+01	-1.371927854E+01
4.6000	3.758284909E-03	-1.049913430E+00	8.281805417E+01	-1.315604032E+01
4.6500	8.967757149E-02	-8.502273080E-01	8.515395464E+01	-1.284487069E+01
4.7000	1.783064454E-01	-6.709267368E-01	8.744190929E+01	-1.277951232E+01
4.7500	2.672400925E-01	-5.006621922E-01	8.966045099E+01	-1.295182357E+01
4.8000	3.547518421E-01	-3.640448469E-01	9.178785850E+01	-1.335037743E+01
4.8500	4.396506786E-01	-2.319879342E-01	9.390644318E+01	-1.396445765E+01
4.9000	5.211568051E-01	-1.115549765E-01	9.569760925E+01	-1.478178655E+01
4.9500	5.989005998E-01	-1.015155633E-03	9.744403755E+01	-1.578690245E+01
5.0000	6.723419298E-01	1.011611672E-01	9.903029851E+01	-1.696297901E+01
5.0500	7.417077230E-01	1.063151315E-01	1.004424018E+02	-1.829240023E+01
5.1000	8.069445902E-01	2.356174943E-01	1.016666732E+02	-1.975867868E+01
5.1500	8.681834837E-01	3.700891726E-01	1.026970241E+02	-2.133486951E+01
5.2000	9.256137935E-01	4.506156637E-01	1.035219279E+02	-2.300767757E+01
5.2500	9.794647959E-01	5.279752027E-01	1.041356136E+02	-2.475333359E+01
5.3000	1.029992113E+00	5.028451455E-01	1.045329724E+02	-2.654995288E+01
5.3500	1.077469720E+00	6.759214452E-01	1.047147610E+02	-2.837555244E+01
5.4000	1.122183330E+00	7.474301628E-01	1.046778108E+02	-3.020813608E+01
5.4500	1.164427532E+00	8.191381294E-01	1.044256015E+02	-3.202548804E+01
5.5000	1.204504197E+00	8.883618795E-01	1.039623476E+02	-3.380608050E+01
5.5500	1.242722384E+00	9.584749769E-01	1.032942173E+02	-3.552911586E+01
5.6000	1.279399305E+00	1.029913870E+00	1.024304838E+02	-3.717377152E+01

$$\Omega = 2 \ln(2h/a) = 5$$

$k_0 h$	$\text{Re} \{I_a(k_0 h)/hE^{inc}\}$	$\text{Im} \{I_a(k_0 h)/hE^{inc}\}$	$\text{Re} \{Z_a(k_0 h)\}$	$\text{Im} \{Z_a(k_0 h)\}$
5.6500	1.314852127E+00	1.092682362E+00	1.013802349E+02	-2.872220712E+01
5.7000	1.349450417E+00	1.171354748E+00	1.001584663E+02	-4.015412024E+01
5.7500	1.382519107E+00	1.244077642E+00	9.878025026E+01	-4.145154704E+01
5.8000	1.417441811E+00	1.318070484E+00	9.725873215E+01	-4.260430622E+01
5.8500	1.451614368E+00	1.393524675E+00	9.561264030E+01	-4.358846776E+01
5.9000	1.486453847E+00	1.470601242E+00	9.386971435E+01	-4.442255284E+01
5.9500	1.522425173E+00	1.549426912E+00	9.202436320E+01	-4.506652087E+01
6.0000	1.559989784E+00	1.630088470E+00	9.012156455E+01	-4.552540051E+01
6.0500	1.599695071E+00	1.712625245E+00	8.817426250E+01	-4.579525886E+01
6.1000	1.642070848E+00	1.797010607E+00	8.600224223E+01	-4.587422514E+01
6.1500	1.687714041E+00	1.883185412E+00	8.4022075050E+01	-4.576334240E+01
6.2000	1.737240342E+00	1.970954425E+00	8.222093664E+01	-4.546507194E+01
6.2500	1.791321886E+00	2.060061027E+00	8.055260354E+01	-4.498757047E+01
6.3000	1.850595448E+00	2.150125554E+00	7.90215020E+01	-4.433412841E+01
6.3500	1.915731691E+00	2.240637200E+00	7.760164763E+01	-4.352020715E+01
6.4000	1.987368258E+00	2.330938484E+00	7.629979924E+01	-4.255314200E+01
6.4500	2.066088305E+00	2.420211101E+00	7.509924042E+01	-4.144532322E+01
6.5000	2.152386966E+00	2.507469675E+00	7.3991384430E+01	-4.021260010E+01
6.5500	2.246617745E+00	2.591561247E+00	7.2955102822E+01	-3.884873204E+01
6.6000	2.348952029E+00	2.671170836E+00	7.1982219050E+01	-3.742924724E+01
6.6500	2.459322059E+00	2.744893415E+00	7.1072075102E+01	-3.591021222E+01
6.7000	2.577372603E+00	2.811101402E+00	7.0228180615E+01	-3.432719060E+01
6.7500	2.702421009E+00	2.869540353E+00	6.9447870561E+01	-3.260470026E+01
6.8000	2.833434162E+00	2.915511440E+00	6.8720226738E+01	-3.103301652E+01
6.8500	2.969928777E+00	2.950784907E+00	6.8050517861E+01	-2.935060264E+01
6.9000	3.107507835E+00	2.973322172E+00	6.7423321088E+01	-2.766508579E+01
6.9500	3.246914284E+00	2.982491471E+00	6.682226224E+01	-2.598885072E+01
7.0000	3.385135245E+00	2.977987512E+00	6.6240275506E+01	-2.433450047E+01
7.0500	3.520011770E+00	2.960021274E+00	6.5680084864E+01	-2.271246664E+01
7.1000	3.640466375E+00	2.929221338E+00	6.5137820024E+01	-2.113621840E+01
7.1500	3.771623021E+00	2.886861208E+00	6.4604612588E+01	-1.961198404E+01
7.2000	3.884908531E+00	2.834185622E+00	6.4081582348E+01	-1.814942826E+01
7.2500	3.988123512E+00	2.772960137E+00	6.3568267077E+01	-1.675525409E+01
7.3000	4.080477396E+00	2.705020041E+00	6.3064127141E+01	-1.543670825E+01



$$\Omega = 2 \ln(2h/a) = 6$$

$k_0 h$	$\text{Re} \{I_a(k_0 h)/hE^{inc}\}$	$\text{Im} \{I_a(k_0 h)/hE^{inc}\}$	$\text{Re} \{Z_a(k_0 h)\}$	$\text{Im} \{Z_a(k_0 h)\}$
0.0500	5.372120404E-06	2.677360924E-01	5.070515774E-02	-3.755471540E+03
0.1000	8.672232130E-05	5.379963512E-01	2.029417714E-01	-1.868990305E+03
0.1500	4.456257781E-04	8.133753353E-01	4.539759427E-01	-1.239970349E+03
0.2000	1.438328810E-03	1.096611909E+00	8.201496778E-01	-9.224024493E+02
0.2500	3.608778827E-03	1.390670436E+00	1.290534824E+00	-7.302617885E+02
0.3000	7.740511433E-03	1.698833429E+00	1.874742585E+00	-6.007645495E+02
0.3500	1.493418617E-02	2.024810558E+00	2.578436508E+00	-5.070198003E+02
0.4000	2.672142515E-02	2.372869719E+00	3.408659843E+00	-4.356003577E+02
0.4500	4.523149413E-02	2.747996904E+00	4.373611219E+00	-3.790366296E+02
0.5000	7.343655976E-02	3.156004138E+00	5.493214765E+00	-3.328530845E+02
0.5500	1.155158725E-01	3.604205322E+00	6.748190223E+00	-2.941939493E+02
0.6000	1.774027577E-01	4.100826120E+00	8.190445518E+00	-2.611348392E+02
0.6500	2.676164731E-01	4.656198086E+00	9.802396414E+00	-2.324674941E+02
0.7000	3.995429274E-01	5.282640417E+00	1.162055008E+01	-2.070976251E+02
0.7500	5.884273676E-01	5.994751753E+00	1.365841135E+01	-1.844023579E+02
0.8000	8.644940519E-01	6.809220294E+00	1.593767294E+01	-1.638634976E+02
0.8500	1.267814906E+00	7.743574102E+00	1.848277651E+01	-1.450959808E+02
0.9000	1.860734672E+00	8.812348426E+00	2.132116882E+01	-1.277646104E+02
0.9500	2.737438284E+00	1.001731047E+01	2.448355957E+01	-1.116613842E+02
1.0000	4.036209327E+00	1.132483167E+01	2.800416664E+01	-9.659004469E+01
1.0500	5.943868321E+00	1.261841691E+01	3.192092720E+01	-8.240535624E+01
1.1000	8.659717472E+00	1.361527234E+01	3.627564274E+01	-6.890573364E+01
1.1500	1.224508116E+01	1.427765939E+01	4.111401264E+01	-5.627829717E+01
1.2000	1.630237709E+01	1.468479619E+01	4.649549210E+01	-4.419567562E+01
1.2500	1.974266514E+01	1.485554098E+01	5.244288661E+01	-3.271450052E+01
1.3000	2.137709222E+01	1.472735256E+01	5.904156475E+01	-2.192307659E+01
1.3500	2.092731421E+01	1.439425604E+01	6.633813495E+01	-1.153750871E+01
1.4000	1.915504270E+01	-3.148067884E+00	7.428839107E+01	-1.892704973E+00
1.4500	1.605205092E+01	-5.201683457E+00	8.24429103E+01	7.047330161E+00
1.5000	1.484390777E+01	-6.32409664E+00	9.094070113E+01	1.510193064E+01
1.5500	1.3082509321E+01	-6.850984445E+00	1.0025346341E+02	2.42135299E+01
1.6000	1.152100179E+01	-7.026809512E+00	1.1150077562E+02	2.858682554E+01
1.6500	1.029499074E+01	-7.005789279E+00	1.233470761E+02	3.351131749E+01
1.7000	9.296753771E+00	-6.872105804E+00	1.404800217E+02	3.699346306E+01
1.7500	8.479732543E+00	-6.692390829E+00	1.543165214E+02	3.881536906E+01
1.8000	7.805641300E+00	-6.496679439E+00	1.666474525E+02	3.875525492E+01
1.8500	7.244404314E+00	-6.287904971E+00	1.832255561E+02	3.560670930E+01
1.9000	6.772794137E+00	-6.082645763E+00	1.977167317E+02	3.202247322E+01
1.9500	6.372937923E+00	-5.895953385E+00	2.117141026E+02	2.544319637E+01
2.0000	6.031041520E+00	-5.700132585E+00	2.247549100E+02	1.622888558E+01
2.0500	5.736390010E+00	-5.526583450E+00	2.363499573E+02	4.981807405E+00
2.1000	5.480392262E+00	-5.365471600E+00	2.460261911E+02	-8.338515745E+00
2.1500	5.257017995E+00	-5.216599470E+00	2.533717394E+02	-2.323872895E+01
2.2000	5.060379673E+00	-5.079520295E+00	2.580925424E+02	-3.921482123E+01
2.2500	4.886421302E+00	-4.953679800E+00	2.600262457E+02	-5.569343307E+01
2.3000	4.731685500E+00	-4.838483270E+00	2.592181280E+02	-7.208446105E+01
2.3500	4.593337826E+00	-4.733345906E+00	2.557132028E+02	-8.783492976E+01
2.4000	4.469033179E+00	-4.637718279E+00	2.499072416E+02	-1.024740639E+02
2.4500	4.356812194E+00	-4.551099641E+00	2.421354782E+02	-1.156425250E+02
2.5000	4.255026536E+00	-4.473046100E+00	2.328141035E+02	-1.271034367E+02
2.5500	4.162266447E+00	-4.403173302E+00	2.223626848E+02	-1.367372082E+02
2.6000	4.077320888E+00	-4.341157321E+00	2.111797712E+02	-1.445229966E+02
2.6500	3.999132332E+00	-4.286734358E+00	1.996062275E+02	-1.505247395E+02
2.7000	3.926764585E+00	-4.237699730E+00	1.879360486E+02	-1.548529520E+02
2.7500	3.859374958E+00	-4.199906905E+00	1.764005063E+02	-1.576554949E+02
2.8000	3.796189450E+00	-4.167266557E+00	1.651763346E+02	-1.590953581E+02

$$\Omega = 2 \ln(2h/a) = 6$$

$k_0 h$	$\text{Re} \{I_a(k_0 h)/hE^{inc}\}$	$\text{Im} \{I_a(k_0 h)/hE^{inc}\}$	$\text{Re} \{Z_a(k_0 h)\}$	$\text{Im} \{Z_a(k_0 h)\}$
2.8500	3.736481972E+00	-4.141745772E+00	1.543916930E+02	-1.593383048E+02
2.9000	3.679552914E+00	-4.123367493E+00	1.441349936E+02	-1.585442730E+02
2.9500	3.624709681E+00	-4.112209953E+00	1.344618647E+02	-1.568612856E+02
3.0000	3.571246167E+00	-4.108405983E+00	1.254033406E+02	-1.544232900E+02
3.0500	3.518420925E+00	-4.112141757E+00	1.169720178E+02	-1.513487298E+02
3.1000	3.465433000E+00	-4.123654416E+00	1.091675971E+02	-1.477409931E+02
3.1500	3.411394346E+00	-4.143227708E+00	1.019806895E+02	-1.436892101E+02
3.2000	3.355297731E+00	-4.171184316E+00	9.539630982E+01	-1.392697533E+02
3.2500	3.295978917E+00	-4.207873015E+00	8.939627252E+01	-1.345477830E+02
3.3000	3.232071970E+00	-4.253647833E+00	8.396095564E+01	-1.295787739E+02
3.3500	3.161956752E+00	-4.308835185E+00	7.907065663E+01	-1.244102162E+02
3.4000	3.083698415E+00	-4.373683285E+00	7.470635272E+01	-1.190827242E+02
3.4500	2.994979965E+00	-4.448285794E+00	7.085035269E+01	-1.136317708E+02
3.5000	2.893032014E+00	-4.532468969E+00	6.748661276E+01	-1.080881932E+02
3.5500	2.774568726E+00	-4.625628397E+00	6.460089455E+01	-1.024798092E+02
3.6000	2.635747731E+00	-4.726499022E+00	6.213078612E+01	-9.683197148E+01
3.6500	2.472185597E+00	-4.832842299E+00	6.021561293E+01	-9.116854368E+01
3.7000	2.279080538E+00	-4.941041397E+00	5.869626263E+01	-8.551239375E+01
3.7500	2.051819796E+00	-5.045616602E+00	5.761494405E+01	-7.988611559E+01
3.8000	1.785073472E+00	-5.138719355E+00	5.696486549E+01	-7.401251080E+01
3.8500	1.476780774E+00	-5.209745392E+00	5.673987628E+01	-6.881502208E+01
3.9000	1.126580822E+00	-5.245224859E+00	5.693403988E+01	-6.341808724E+01
3.9500	7.390754020E-01	-5.230062190E+00	5.754116595E+01	-5.814738855E+01
4.0000	3.252033077E-01	-5.148406600E+00	5.855429337E+01	-5.303012398E+01
4.0500	-9.697136254E-02	-4.987769459E+00	5.996510000E+01	-4.809496117E+01
4.1000	-5.233299678E-01	-4.742361971E+00	6.176340693E+01	-4.337210307E+01
4.1500	-2.571787790E-01	-4.416409475E+00	6.393647932E+01	-3.889312446E+01
4.2000	-1.164536011E+00	-4.025031649E+00	6.646047601E+01	-3.469069923E+01
4.2500	-1.379347562E+00	-3.591849054E+00	6.934054516E+01	-3.079879915E+01
4.3000	-1.506439593E+00	-3.143977237E+00	7.252758648E+01	-2.724969106E+01
4.3500	-1.551143847E+00	-2.706516138E+00	7.600188191E+01	-2.407692192E+01
4.4000	-1.526265603E+00	-2.299602936E+00	7.972977192E+01	-2.131160542E+01
4.4500	-1.448088526E+00	-1.931938305E+00	8.367341599E+01	-1.898366637E+01
4.5000	-1.332247544E+00	-1.611417969E+00	8.778000229E+01	-1.711846255E+01
4.5500	-1.195085440E+00	-1.336942607E+00	9.202825418E+01	-1.573725424E+01
4.6000	-1.045754818E+00	-1.104933078E+00	9.633861660E+01	-1.485561897E+01
4.6500	-8.931899125E-01	-0.104167234E-01	1.006642201E+02	-1.448200995E+01
4.7000	-7.430147560E-01	-7.481312952E-01	1.049466520E+02	-1.462004333E+01
4.7500	-5.988155775E-01	-6.126883215E-01	1.091263625E+02	-1.526329892E+01
4.8000	-4.626733704E-01	-4.922114044E-01	1.131441931E+02	-1.639527376E+01
4.8500	-3.356214730E-01	-4.038650432E-01	1.169426054E+02	-1.799362890E+01
4.9000	-2.179219173E-01	-3.228630924E-01	1.204675095E+02	-2.002722986E+01
4.9500	-1.096679355E-01	-2.534162205E-01	1.236695092E+02	-2.245682365E+01
5.0000	-1.026046291E-02	-1.931548979E-01	1.265054369E+02	-2.523689583E+01
5.0500	8.077231252E-02	-1.401472002E-01	1.289392716E+02	-2.831628680E+01
5.1000	1.640462861E-01	-9.282216100E-02	1.309319766E+02	-3.166097392E+01
5.1500	2.402012534E-01	-4.990228598E-02	1.324267052E+02	-3.514974509E+01
5.2000	3.098701683E-01	-1.034654114E-02	1.335897687E+02	-3.878710831E+01
5.2500	3.736613891E-01	2.560678895E-02	1.342194126E+02	-4.240355236E+01
5.3000	4.321494853E-01	6.192850308E-02	1.343910368E+02	-4.621236986E+01
5.3500	4.858715946E-01	9.592950179E-02	1.341171990E+02	-4.988990476E+01
5.4000	5.353273015E-01	1.291957102E-01	1.334168841E+02	-5.347629235E+01
5.4500	5.809807143E-01	1.621080491E-01	1.323144481E+02	-5.692641885E+01
5.5000	6.232638824E-01	1.950484129E-01	1.308386100E+02	-6.020017319E+01
5.5500	6.625810095E-01	2.283124535E-01	1.290214157E+02	-6.326279618E+01
5.6000	6.993131386E-01	2.621697794E-01	1.268972907E+02	-6.608503665E+01

$$\Omega = 2 \ln(2h/a) = 6$$

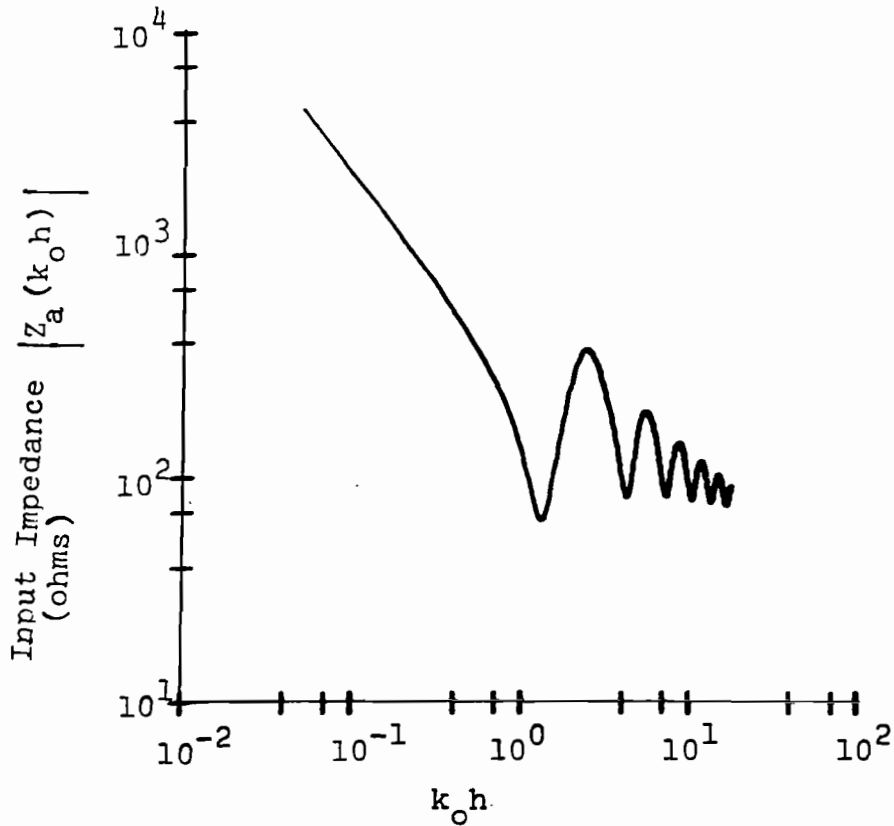
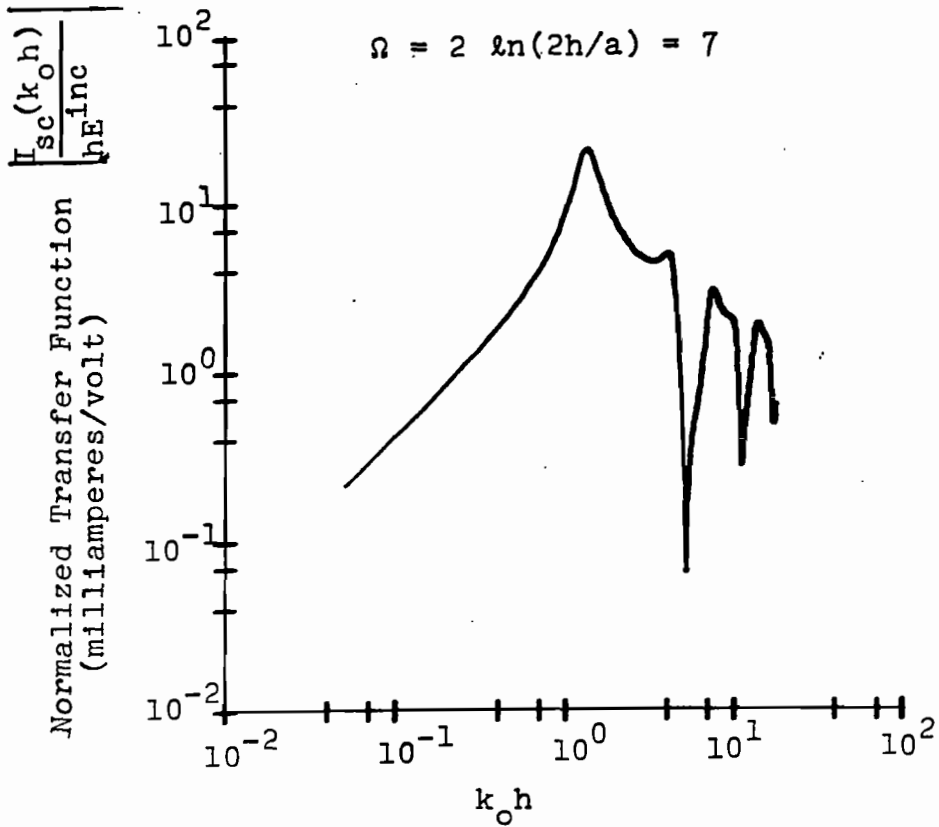
$k_0 h$	$\text{Re} \{ I_a(k_0 h)/hE^{inc} \}$	$\text{Im} \{ I_a(k_0 h)/hE^{inc} \}$	$\text{Re} \{ Z_a(k_0 h) \}$	$\text{Im} \{ Z_a(k_0 h) \}$
5.6500	7.338231191E-01	2.968620687E-01	1.245022187E+02	-6.864301340E+01
5.7000	7.664607805E-01	3.326094802E-01	1.218726706E+02	-7.091767080E+01
5.7500	7.975682793E-01	3.696156042E-01	1.190454481E+02	-7.289510915E+01
5.8000	8.274856498E-01	4.080711636E-01	1.160566518E+02	-7.456559206E+01
5.8500	8.565565969E-01	4.481565513E-01	1.129414481E+02	-7.592344101E+01
5.9000	8.851346137E-01	4.900432591E-01	1.097349805E+02	-7.696584412E+01
5.9500	9.135924629E-01	5.338940869E-01	1.064683067E+02	-7.769501982E+01
6.0000	9.423141098E-01	5.798621018E-01	1.031722546E+02	-7.811404832E+01
6.0500	9.717321357E-01	6.280880426E-01	9.987819325E+01	-7.822906581E+01
6.1000	1.002305616E+00	6.786959138E-01	9.661156320E+01	-7.804863041E+01
6.1500	1.034543382E+00	7.317863299E-01	9.329887929E+01	-7.758192746E+01
6.2000	1.069000946E+00	7.874270748E-01	9.006424617E+01	-7.684128092E+01
6.2500	1.106331323E+00	8.456402197E-01	8.723010012E+01	-7.583975174E+01
6.3000	1.147207175E+00	9.062950411E-01	8.481724410E+01	-7.459156210E+01
6.3500	1.192411413E+00	9.695359909E-01	8.154485241E+01	-7.312228952E+01
6.4000	1.242796481E+00	1.034854289E+00	7.822058897E+01	-7.141803504E+01
6.4500	1.297288972E+00	1.101054409E+00	7.490257762E+01	-6.952678540E+01
6.5000	1.362376935E+00	1.172262793E+00	7.162005344E+01	-6.745680932E+01
6.5500	1.434583687E+00	1.239970290E+00	6.839042202E+01	-6.522704107E+01
6.6000	1.515425403E+00	1.306987233E+00	6.525280115E+01	-6.285759306E+01
6.6500	1.606343829E+00	1.372989610E+00	6.274185423E+01	-6.036996218E+01
6.7000	1.708113081E+00	1.438884659E+00	6.073586022E+01	-5.773591295E+01
6.7500	1.821216439E+00	1.509080373E+00	5.921348469E+01	-5.512088465E+01
6.8000	1.945696947E+00	1.583811902E+00	5.830828821E+01	-5.240491770E+01
6.8500	2.080993439E+00	1.574032366E+00	5.746467787E+01	-4.965791251E+01
6.9000	2.225785039E+00	1.595631758E+00	5.672899022E+01	-4.690215229E+01
6.9500	2.377879258E+00	1.600128983E+00	5.605406235E+01	-4.416111422E+01
7.0000	2.534186563E+00	1.585165203E+00	5.541156245E+01	-4.145692635E+01
7.0500	2.696821433E+00	1.549247479E+00	5.471247414E+01	-3.881193774E+01
7.1000	2.843350652E+00	1.491554651E+00	5.403432789E+01	-3.624753424E+01
7.1500	2.987174597E+00	1.413138887E+00	5.367155133E+01	-3.378488033E+01
7.2000	3.117985318E+00	1.315956018E+00	5.366113698E+01	-3.144269297E+01
7.2500	3.232213521E+00	1.203207941E+00	5.377401927E+01	-2.923972137E+01
7.3000	3.327371367E+00	1.078902806E+00	5.390423208E+01	-2.719281360E+01
7.3500	3.402224316E+00	9.474278648E-01	5.400044340E+01	-2.531719134E+01
7.4000	3.456773208E+00	8.130957372E-01	5.399570241E+01	-2.363577864E+01
7.4500	3.492076593E+00	6.797852231E-01	5.398824553E+01	-2.212952752E+01
7.5000	3.509974849E+00	5.506013163E-01	5.361707724E+01	-2.083790835E+01
7.5500	3.512784567E+00	4.282164421E-01	5.350065023E+01	-1.975716236E+01
7.6000	3.502018411E+00	3.139750545E-01	5.342604264E+01	-1.889216102E+01
7.6500	3.482163204E+00	2.089931885E-01	5.340292267E+01	-1.824321022E+01
7.7000	3.455527042E+00	1.132764671E-01	5.337020377E+01	-1.781143278E+01
7.7500	3.422150644E+00	2.705749405E-02	5.324174801E+01	-1.759361374E+01
7.8000	3.384769986E+00	-5.017920356E-02	5.326730256E+01	-1.752550649E+01
7.8500	3.344815112E+00	-1.190365812E-01	5.314160737E+01	-1.777857909E+01
7.9000	3.303431356E+00	-1.802286951E-01	5.294300205E+01	-1.816481263E+01
7.9500	3.261512298E+00	-2.345168011E-01	5.265508570E+01	-1.872336152E+01
8.0000	3.219736938E+00	-2.826647727E-01	5.225928201E+01	-1.947288121E+01
8.0500	3.178606264E+00	-3.254099621E-01	5.174202596E+01	-2.046901609E+01
8.1000	3.138477301E+00	-3.634452707E-01	5.109022717E+01	-2.14739991E+01
8.1500	3.099591227E+00	-3.974122547E-01	5.029261489E+01	-2.257235007E+01
8.2000	3.062098945E+00	-4.278932846E-01	4.933982546E+01	-2.384733234E+01
8.2500	3.026080579E+00	-4.554164313E-01	4.802235364E+02	-2.521576352E+01
8.3000	2.991551696E+00	-4.804559508E-01	4.609378643E+02	-2.666015463E+01
8.3500	2.958525890E+00	-5.034367522E-01	4.4784424E+02	-2.816299148E+01
8.4000	2.926924556E+00	-5.247390143E-01	4.318424123E+02	-2.970678411E+01

$$\Omega = 2 \ln(2h/a) = 6$$

$k_0 h$	$\text{Re} \left\{ I_a(k_0 h)/hE^{inc} \right\}$	$\text{Im} \left\{ I_a(k_0 h)/hE^{inc} \right\}$	$\text{Re} \left\{ Z_a(k_0 h) \right\}$	$\text{Im} \left\{ Z_a(k_0 h) \right\}$
8.4500	2.896684276E+00	-5.447029735E-01	1.020288788E+02	-3.127327762E+01
8.5000	2.867712276E+00	-5.636335018E-01	1.020393955E+02	-3.284685933E+01
8.5500	2.839900345E+00	-5.818044322E-01	1.018750968E+02	-3.440938572E+01
8.6000	2.813127490E+00	-5.994623983E-01	1.015397536E+02	-3.594472416E+01
8.6500	2.787261592E+00	-6.168302133E-01	1.010385360E+02	-3.743692882E+01
8.7000	2.762160268E+00	-6.341097140E-01	1.003777532E+02	-3.887083222E+01
8.7500	2.737671021E+00	-6.514840871E-01	9.956587786E+01	-4.023173672E+01
8.8000	2.713630209E+00	-6.691195270E-01	9.841017231E+01	-4.150659905E+01
8.8500	2.689865725E+00	-6.871659204E-01	9.752127959E+01	-4.268246391E+01
8.9000	2.666189827E+00	-7.057614939E-01	9.631052890E+01	-4.374768501E+01
8.9500	2.642399703E+00	-7.250236726E-01	9.489995663E+01	-4.469183173E+01
9.0000	2.618222293E+00	-7.450579210E-01	9.357179457E+01	-4.550529522E+01
9.0500	2.593603220E+00	-7.65951286E-01	9.207019227E+01	-4.618010530E+01
9.1000	2.568110011E+00	-7.877710330E-01	9.049944455E+01	-4.670946139E+01
9.1500	2.541529442E+00	-8.105612946E-01	8.887741407E+01	-4.708755812E+01
9.2000	2.512566221E+00	-8.343386829E-01	8.721368237E+01	-4.731141840E+01
9.2500	2.483002259E+00	-8.590957206E-01	8.552480305E+01	-4.737814911E+01
9.3000	2.452196931E+00	-8.847490226E-01	8.383244147E+01	-4.729671381E+01
9.3500	2.419088103E+00	-9.112212407E-01	8.214723532E+01	-4.702936004E+01
9.4000	2.381196434E+00	-9.383417943E-01	8.048557113E+01	-4.662472012E+01
9.4500	2.341130216E+00	-9.659216257E-01	7.886344871E+01	-4.609000617E+01
9.5000	2.297494794E+00	-9.935333914E-01	7.729062552E+01	-4.543122280E+01
9.5500	2.249905261E+00	-1.020900705E+00	7.579117404E+01	-4.454714855E+01
9.6000	2.198003772E+00	-1.047489112E+00	7.427275163E+01	-4.357303907E+01
9.6500	2.141491794E+00	-1.072628426E+00	7.285053508E+01	-4.248342392E+01
9.7000	2.090107304E+00	-1.095821407E+00	7.183505525E+01	-4.129557097E+01
9.7500	2.013756296E+00	-1.116047995E+00	7.073308906E+01	-3.998989347E+01
9.8000	1.942447591E+00	-1.132479302E+00	6.975482073E+01	-3.860960214E+01
9.8500	1.866376220E+00	-1.144152973E+00	6.890706907E+01	-3.715972972E+01
9.9000	1.785944012E+00	-1.150981405E+00	6.819586600E+01	-3.565921170E+01
9.9500	1.701785070E+00	-1.149302725E+00	6.761932199E+01	-3.410308166E+01
10.0000	1.614763951E+00	-1.140042250E+00	6.718202052E+01	-3.252756360E+01
10.0500	1.525972325E+00	-1.124280560E+00	6.680010055E+01	-3.093091920E+01
10.1000	1.436699498E+00	-1.099912604E+00	6.647541014E+01	-2.935480733E+01
10.1500	1.348325564E+00	-1.064334986E+00	6.6207409661E+01	-2.778751020E+01
10.2000	1.262344682E+00	-1.020022650E+00	6.600721133E+01	-2.634906363E+01
10.2500	1.180177071E+00	-9.690002100E-01	6.5712813410E+01	-2.475337793E+01
10.3000	1.103129980E+00	-9.092937106E-01	6.540551165E+01	-2.331245216E+01
10.3500	1.032309159E+00	-8.427903002E-01	6.509405554E+01	-2.193581562E+01
10.4000	9.685602413E-01	-7.706699432E-01	6.4859100118E+01	-2.063551376E+01
10.4500	9.124362798E-01	-6.942274332E-01	6.4695648277E+01	-1.941925881E+01
10.5000	8.641929210E-01	-6.147739893E-01	6.4606795990E+01	-1.829498433E+01
10.5500	8.239084051E-01	-5.335924128E-01	6.4622578151E+01	-1.726842085E+01
10.6000	7.910223365E-01	-4.518463751E-01	6.484928550E+01	-1.624514204E+01
10.6500	7.653859954E-01	-3.705527156E-01	6.5282925132E+01	-1.553051750E+01
10.7000	7.463158161E-01	-2.905553792E-01	6.595034744E+01	-1.482496072E+01
10.7500	7.321458637E-01	-2.125185574E-01	6.690292338E+01	-1.423004913E+01
10.8000	7.251730221E-01	-1.369330965E-01	6.807948314E+01	-1.374925218E+01
10.8500	7.216941107E-01	-6.413197065E-02	6.906733939E+01	-1.338123656E+01
10.9000	7.220325932E-01	5.609864579E-02	7.015617313E+01	-1.312489816E+01
10.9500	7.255627651E-01	7.244764741E-02	7.122359600E+01	-1.297840042E+01
11.0000	7.317114175E-01	1.261540574E-01	7.229716878E+01	-1.292990502E+01
11.0500	7.399735108E-01	1.969882055E-01	7.330533809E+01	-1.300332789E+01
11.1000	7.499083505E-01	2.547821915E-01	7.422989344E+01	-1.316818022E+01
11.1500	7.611387630E-01	3.100045732E-01	7.529161720E+01	-1.342724042E+01
11.2000	7.733471712E-01	3.627476902E-01	7.641802455E+01	-1.377370163E+01

$$\Omega = 2 \ln(2h/a) = 6$$

$k_0 h$	$\text{Re} \{I_a(k_0 h)/hE^{inc}\}$	$\text{Im} \{I_a(k_0 h)/hE^{inc}\}$	$\text{Re} \{Z_a(k_0 h)\}$	$\text{Im} \{Z_a(k_0 h)\}$
11.2500	7.862705777E-01	4.132176978E-01	8.502075481E+01	-1.420550615E+01
11.3000	7.996951117E-01	4.616269002E-01	8.579525544E+01	-1.471462667E+01
11.3500	8.124504922E-01	5.081880579E-01	8.649773615E+01	-1.529466250E+01
11.4000	8.274048156E-01	5.531102815E-01	8.712272565E+01	-1.593931321E+01
11.4500	8.414597159E-01	5.965962173E-01	8.766509064E+01	-1.663940560E+01
11.5000	8.555461720E-01	6.388401402E-01	8.812061179E+01	-1.739779654E+01
11.5500	8.696207706E-01	6.800268184E-01	8.848548300E+01	-1.817430139E+01
11.6000	8.836625879E-01	7.203308672E-01	8.875760309E+01	-1.899432722E+01
11.6500	8.976706506E-01	7.599164067E-01	8.893621457E+01	-1.983789290E+01
11.7000	9.116617915E-01	7.989370470E-01	8.901654635E+01	-2.069595207E+01
11.7500	9.256690323E-01	8.375358360E-01	8.909840739E+01	-2.156004472E+01
11.8000	9.397403356E-01	8.758453008E-01	8.918309575E+01	-2.241729343E+01
11.8500	9.539377114E-01	9.132874210E-01	8.926689787E+01	-2.326285304E+01
11.9000	9.683365496E-01	9.502073452E-01	8.935278639E+01	-2.409714837E+01
11.9500	9.830252636E-01	9.862035916E-01	8.946033407E+01	-2.497908005E+01
12.0000	9.981050650E-01	1.028466443E+00	8.957472205E+01	-2.583209537E+01
12.0500	1.013689932E+00	1.065938141E+00	8.969928665E+01	-2.663262897E+01



$$\Omega = 2 \ln(2h/a) = 7$$

$k_0 h$	$\text{Re} \{ I_a(k_0 h) / hE^{inc} \}$	$\text{Im} \{ I_a(k_0 h) / hE^{inc} \}$	$\text{Re} \{ Z_a(k_0 h) \}$	$\text{Im} \{ Z_a(k_0 h) \}$
.0500	3.224959970E-06	2.093840766E-01	4.601136316E-02	-4.578632273E+03
.1000	5.203151437E-05	4.206181234E-01	1.829117308E-01	-2.270005819E+03
.1500	2.671149629E-04	6.356013907E-01	4.152493417E-01	-1.511085434E+03
.2000	8.610132295E-04	8.563341705E-01	7.415354677E-01	-1.124428884E+03
.2500	2.156559608E-03	1.084974780E+00	1.1602335618E+00	-8.919094106E+02
.3000	4.615715653E-03	1.323904638E+00	1.608666760E+00	-7.345264050E+02
.3500	8.882372971E-03	1.575805438E+00	2.226550556E+00	-6.207451281E+02
.4000	1.584472645E-02	1.843752644E+00	3.089496110E+00	-5.261722426E+02
.4500	2.672587622E-02	2.131331284E+00	3.065174822E+00	-4.657004586E+02
.5000	4.321608140E-02	2.442781234E+00	4.972709620E+00	-4.009676007E+02
.5500	6.766768616E-02	2.783181075E+00	6.122800794E+00	-3.631974094E+02
.6000	1.0238860799E-01	3.158681250E+00	7.427765751E+00	-3.233676572E+02
.6500	1.550704411E-01	3.576797832E+00	8.901721920E+00	-2.887662989E+02
.7000	2.294922021E-01	4.046774000E+00	1.056126173E+01	-2.582467870E+02
.7500	3.365571977E-01	4.580010507E+00	1.242471907E+01	-2.309554911E+02
.8000	4.900964822E-01	5.190407822E+00	1.451422651E+01	-2.062673217E+02
.8500	7.150986735E-01	5.895129486E+00	1.685432652E+01	-1.836775047E+02
.9000	1.042171442E+00	6.712420941E+00	1.947284531E+01	-1.628177227E+02
.9500	1.528823180E+00	7.665607131E+00	2.240037082E+01	-1.433780424E+02
1.0000	2.256549043E+00	8.766119137E+00	2.567402364E+01	-1.251298922E+02
1.0500	3.358588315E+00	1.000612453E+01	2.924647224E+01	-1.078799517E+02
1.1000	5.032905564E+00	1.131018251E+01	3.266820922E+01	-9.145700260E+01
1.1500	7.535066615E+00	1.244243909E+01	3.604045960E+01	-7.574730579E+01
1.2000	1.105587705E+01	1.285504905E+01	4.0218440310E+01	-6.065344625E+01
1.2500	1.532168033E+01	1.164775566E+01	4.894911402E+01	-4.610277685E+01
1.3000	1.908383208E+01	8.142745008E+00	5.541218027E+01	-3.204586876E+01
1.3500	2.066033734E+01	3.080903396E+00	6.266012955E+01	-1.845684522E+01
1.4000	1.970104939E+01	-1.631034187E+00	7.078849742E+01	-5.334901924E+00
1.4500	1.735251514E+01	-4.910013403E+00	7.990129042E+01	7.282002214E+00
1.5000	1.478095690E+01	-6.515574070E+00	9.010048678E+01	1.036757746E+01
1.5500	1.252590805E+01	-7.242574703E+00	1.015280723E+02	3.079289108E+01
1.6000	1.070362561E+01	-7.442418087E+00	1.142709329E+02	4.1428926071E+01
1.6500	9.269507909E+00	-7.262282455E+00	1.288427325E+02	5.108514046E+01
1.7000	8.143885012E+00	-7.151595271E+00	1.441267390E+02	5.951290603E+01
1.7500	7.253723263E+00	-6.887501740E+00	1.613675219E+02	6.640080036E+01
1.8000	6.541573800E+00	-6.608018804E+00	1.801476565E+02	7.137186982E+01
1.8500	5.964516234E+00	-6.335214607E+00	2.003583792E+02	7.399014349E+01
1.9000	5.490963579E+00	-6.075544716E+00	2.217656850E+02	7.377743479E+01
1.9500	5.097661745E+00	-5.833741533E+00	2.422760013E+02	7.024719910E+01
2.0000	4.767363902E+00	-5.610887065E+00	2.664099558E+02	6.296852567E+01
2.0500	4.487142192E+00	-5.406676595E+00	2.882040578E+02	5.159024722E+01
2.1000	4.247190378E+00	-5.220146324E+00	3.086870846E+02	3.602789137E+01
2.1500	4.039978917E+00	-5.050061544E+00	3.265487534E+02	1.644664516E+01
2.2000	3.859655610E+00	-4.895121422E+00	3.408531704E+02	-6.434727388E+00
2.2500	3.701623517E+00	-4.754064289E+00	3.507305600E+02	-3.235501089E+01
2.3000	3.562223065E+00	-4.625718296E+00	3.556049402E+02	-5.958144037E+01
2.3500	3.438517595E+00	-4.509022695E+00	3.552885522E+02	-8.704297903E+01
2.4000	3.328122873E+00	-4.403023154E+00	3.500038500E+02	-1.134041134E+02
2.4500	3.229084622E+00	-4.306919163E+00	3.403279444E+02	-1.378680289E+02
2.5000	3.139785340E+00	-4.219957452E+00	3.270804004E+02	-1.593739130E+02
2.5500	3.058873102E+00	-4.141524110E+00	3.111906259E+02	-1.775595830E+02
2.6000	2.985206505E+00	-4.071086523E+00	2.925751173E+02	-1.922455725E+02
2.6500	2.917811495E+00	-4.008195872E+00	2.750552000E+02	-2.035080009E+02
2.7000	2.855847020E+00	-3.952480526E+00	2.563072725E+02	-2.115003450E+02
2.7500	2.798577201E+00	-3.902640465E+00	2.378497975E+02	-2.169278383E+02
2.8000	2.745348321E+00	-3.861442771E+00	2.200538324E+02	-2.195998383E+02

$$\Omega = 2 \ln(2h/a) = 7$$

$k_0 h$	$\text{Re} \left\{ I_a(k_0 h)/hE^{\text{inc}} \right\}$	$\text{Im} \left\{ I_a(k_0 h)/hE^{\text{inc}} \right\}$	$\text{Re} \left\{ Z_a(k_0 h) \right\}$	$\text{Im} \left\{ Z_a(k_0 h) \right\}$
2.9500	2.695569259E+00	-3.825718221E+00	2.031632693E+02	-2.202849883E+02
2.9600	2.648694222E+00	-3.796359834E+00	1.273247275E+02	-2.162368228E+02
2.9700	2.604207577E+00	-3.773316437E+00	1.726056055E+02	-2.167715892E+02
3.0000	2.561607841E+00	-3.756602070E+00	1.590222276E+02	-2.131617028E+02
3.0500	2.520393620E+00	-3.746286207E+00	1.465571407E+02	-2.086375097E+02
3.1000	2.480047185E+00	-3.742499500E+00	1.351662551E+02	-2.033802569E+02
3.1500	2.440016932E+00	-3.745434540E+00	1.247055678E+02	-1.975722653E+02
3.2000	2.399697057E+00	-3.755346337E+00	1.153845404E+02	-1.913134304E+02
3.2500	2.358403421E+00	-3.772554234E+00	1.068715286E+02	-1.847123091E+02
3.3000	2.315343965E+00	-3.797441233E+00	9.912681306E+01	-1.778404234E+02
3.3500	2.269582247E+00	-3.830451206E+00	9.230457037E+01	-1.707981633E+02
3.4000	2.219991585E+00	-3.872081912E+00	8.614298233E+01	-1.635785217E+02
3.4500	2.165107434E+00	-3.922868681E+00	8.066982660E+01	-1.562509664E+02
3.5000	2.103504976E+00	-3.982356683E+00	7.584268931E+01	-1.488633369E+02
3.5500	2.032809106E+00	-4.054050402E+00	7.162805201E+01	-1.414157122E+02
3.6000	1.950484741E+00	-4.135330369E+00	6.800063654E+01	-1.339311154E+02
3.6500	1.853258275E+00	-4.227215731E+00	6.493514517E+01	-1.264323799E+02
3.7000	1.737067591E+00	-4.329640830E+00	6.241406740E+01	-1.189322506E+02
3.7500	1.596232036E+00	-4.441159048E+00	6.042733620E+01	-1.114444375E+02
3.8000	1.426880577E+00	-4.559366432E+00	5.896387013E+01	-1.039227535E+02
3.8500	1.220033861E+00	-4.679751330E+00	5.802015600E+01	-9.656092074E+01
3.9000	9.690108492E-01	-4.794885965E+00	5.750534201E+01	-8.919555600E+01
3.9500	6.669279084E-01	-4.892997013E+00	5.769163067E+01	-8.190462703E+01
4.0000	3.693318645E-01	-4.957534202E+00	5.831271865E+01	-7.470075023E+01
4.0500	-1.026775131E-01	-4.965706514E+00	5.946913370E+01	-6.762592000E+01
4.1000	-5.583303595E-01	-4.894000422E+00	6.116298117E+01	-6.071351606E+01
4.1500	-1.023811651E+00	-4.718705120E+00	6.340076100E+01	-5.397622189E+01
4.2000	-1.491406671E+00	-4.423008714E+00	6.620086101E+01	-4.746553317E+01
4.2500	-1.885925014E+00	-4.015739261E+00	6.955547086E+01	-4.122706452E+01
4.3000	-2.176604054E+00	-3.521260860E+00	7.346908828E+01	-3.521473905E+01
4.3500	-2.340150533E+00	-2.947385065E+00	7.793415677E+01	-2.921152716E+01
4.4000	-2.376887420E+00	-2.454195248E+00	8.294412470E+01	-2.471764240E+01
4.4500	-2.306957665E+00	-1.967077157E+00	8.847923332E+01	-2.015656442E+01
4.5000	-2.160419258E+00	-1.548546400E+00	9.448030477E+01	-1.620043052E+01
4.5500	-1.967525615E+00	-1.202042904E+00	1.009266870E+02	-1.292514626E+01
4.6000	-1.753326367E+00	-8.275277107E-01	1.077456655E+02	-1.038693026E+01
4.6500	-1.525280723E+00	-7.131216824E-01	1.148575403E+02	-8.664455725E+00
4.7000	-1.324541337E+00	-5.486166577E-01	1.221658440E+02	-7.818577799E+00
4.7500	-1.127235999E+00	-4.241532408E-01	1.295582400E+02	-7.896967115E+00
4.8000	-9.463310271E-01	-2.900002033E-01	1.369086420E+02	-8.029615482E+00
4.8500	-7.824044503E-01	-2.592519181E-01	1.440807131E+02	-1.002473002E+01
4.9000	-6.350320669E-01	-2.059248122E-01	1.509326650E+02	-1.386546260E+01
4.9500	-5.031128990E-01	-1.653199662E-01	1.572231694E+02	-1.770780329E+01
5.0000	-3.852720612E-01	-1.243114376E-01	1.621178623E+02	-2.239089256E+01
5.0500	-2.800660663E-01	-1.102011860E-01	1.681059833E+02	-2.773781655E+01
5.1000	-1.860951432E-01	-9.102336240E-02	1.724564039E+02	-3.380960506E+01
5.1500	-1.020591578E-01	-7.522252205E-02	1.758224607E+02	-4.031075896E+01
5.2000	-2.678051069E-02	-6.187270815E-02	1.782451044E+02	-4.714469075E+01
5.2500	4.079154880E-02	-4.992763602E-02	1.797040952E+02	-5.416145636E+01
5.3000	1.015864074E-01	-3.877940111E-02	1.802072068E+02	-6.121412860E+01
5.3500	1.564228947E-01	-2.792835564E-02	1.797878873E+02	-6.816481655E+01
5.4000	2.060206076E-01	-1.698190050E-02	1.785009007E+02	-7.488955615E+01
5.4500	2.510133072E-01	-5.627795009E-03	1.764182955E+02	-8.128150865E+01
5.5000	2.919604171E-01	6.382538304E-03	1.736240178E+02	-8.725293922E+01
5.5500	3.293581524E-01	1.925227611E-02	1.702092866E+02	-9.273576764E+01
5.6000	3.636495441E-01	3.315474855E-02	1.662677077E+02	-9.768023947E+01

$$\Omega = 2 \ln(2h/a) = 7$$

$k_0 h$	$\text{Re} \left\{ I_a(k_0 h)/hE^{inc} \right\}$	$\text{Im} \left\{ I_a(k_0 h)/hE^{inc} \right\}$	$\text{Re} \left\{ Z_a(k_0 h) \right\}$	$\text{Im} \left\{ Z_a(k_0 h) \right\}$
5.6500	3.952334796E-01	4.823608212E-02	1.618924320E+02	-1.020549293E+02
5.7000	4.244728770E-01	6.462295684E-02	1.571727709E+02	-1.052422210E+02
5.7500	4.517021414E-01	8.245849231E-02	1.521923027E+02	-1.090384974E+02
5.8000	4.772340667E-01	1.019404115E-01	1.470275821E+02	-1.116400840E+02
5.8500	5.013663617E-01	1.228917691E-01	1.417475229E+02	-1.136911279E+02
5.9000	5.243879807E-01	1.457302260E-01	1.364130551E+02	-1.151822019E+02
5.9500	5.465854376E-01	1.704769318E-01	1.310776284E+02	-1.161477842E+02
6.0000	5.682492973E-01	1.972580865E-01	1.257874948E+02	-1.166150540E+02
6.0500	5.896810451E-01	2.262058709E-01	1.205824041E+02	-1.166126251E+02
6.1000	6.112005456E-01	2.574586680E-01	1.154963272E+02	-1.161695689E+02
6.1500	6.331543005E-01	2.911603971E-01	1.105582574E+02	-1.153149938E+02
6.2000	6.552247674E-01	3.274586852E-01	1.057228982E+02	-1.142768150E+02
6.2500	6.799409410E-01	3.665014675E-01	1.012214165E+02	-1.124826123E+02
6.3000	7.056904194E-01	4.084314186E-01	9.696208353E+01	-1.105585033E+02
6.3500	7.337331050E-01	4.533773912E-01	9.273084656E+01	-1.106319336E+02
6.4000	7.647165422E-01	5.014417291E-01	8.894185610E+01	-1.098121718E+02
6.4500	7.993926448E-01	5.526819450E-01	8.520788340E+01	-1.090507436E+02
6.5000	8.386351066E-01	6.070847948E-01	8.184068388E+01	-1.082461534E+02
6.5500	8.824560209E-01	6.645302583E-01	7.875129387E+01	-0.682485162E+01
6.6000	9.350189870E-01	7.247425253E-01	7.595019542E+01	-9.341392177E+01
6.6500	9.946441238E-01	7.872248391E-01	7.344756248E+01	-8.982839906E+01
6.7000	1.063797636E+00	8.511755031E-01	7.125470904E+01	-8.602235308E+01
6.7500	1.144054261E+00	9.152840905E-01	6.927821840E+01	-8.222560600E+01
6.8000	1.227022149E+00	9.781110753E-01	6.742245435E+01	-7.825125317E+01
6.8500	1.3144196161E+00	1.036896203E+00	6.641502278E+01	-7.412344031E+01
6.9000	1.4066743620E+00	1.088780532E+00	6.574564762E+01	-7.007452513E+01
6.9500	1.505183773E+00	1.129603297E+00	6.522750524E+01	-6.592678106E+01
7.0000	1.609981647E+00	1.154740363E+00	6.506656521E+01	-6.177208717E+01
7.0500	1.726098061E+00	1.159058111E+00	6.526714866E+01	-5.764213833E+01
7.1000	2.102603142E+00	1.137528050E+00	6.583142063E+01	-5.356942901E+01
7.1500	2.282521441E+00	1.086042970E+00	6.675924727E+01	-4.958420532E+01
7.2000	2.458096492E+00	1.002383413E+00	6.804696486E+01	-4.572427407E+01
7.2500	2.622587247E+00	8.870761763E-01	6.968738226E+01	-4.202472158E+01
7.3000	2.761520347E+00	7.438100322E-01	7.166986040E+01	-3.852269933E+01
7.3500	2.874088750E+00	5.791548301E-01	7.327795676E+01	-3.525539604E+01
7.4000	2.954255136E+00	4.015817251E-01	7.459102995E+01	-3.229975121E+01
7.4500	3.001203478E+00	2.200765140E-01	7.548298000E+01	-2.957143227E+01
7.5000	3.017052852E+00	4.279205727E-02	8.242225332E+01	-2.722295771E+01
7.5500	3.006034997E+00	-1.238887721E-01	8.597243012E+01	-2.524767485E+01
7.6000	2.973478126E+00	-2.757329357E-01	8.949242461E+01	-2.366759334E+01
7.6500	2.924899379E+00	-4.105627608E-01	9.313253579E+01	-2.250685300E+01
7.7000	2.863368243E+00	-5.278561977E-01	9.684658938E+01	-2.177920857E+01
7.7500	2.799164418E+00	-6.292681649E-01	1.0059330521E+02	-2.149241594E+01
7.8000	2.729670824E+00	-7.131694051E-01	1.042870070E+02	-2.164705922E+01
7.8500	2.659417199E+00	-7.842366701E-01	1.079053158E+02	-2.223599943E+01
7.9000	2.590199738E+00	-8.434496662E-01	1.113945190E+02	-2.324405749E+01
7.9500	2.523225070E+00	-8.924339577E-01	1.146754222E+02	-2.464086000E+01
8.0000	2.459248664E+00	-9.328704361E-01	1.177322784E+02	-2.642111171E+01
8.0500	2.398693897E+00	-9.662092730E-01	1.205144199E+02	-2.852551051E+01
8.1000	2.341747742E+00	-9.937097067E-01	1.229871081E+02	-3.092177041E+01
8.1500	2.288434191E+00	-1.016448934E+00	1.251224000E+02	-3.356610001E+01
8.2000	2.238668783E+00	-1.035339373E+00	1.268991065E+02	-3.641157173E+01
8.2500	2.192297908E+00	-1.051149299E+00	1.283029232E+02	-3.941189935E+01
8.3000	2.149126583E+00	-1.064523665E+00	1.293273695E+02	-4.251708265E+01
8.3500	2.108937545E+00	-1.076003688E+00	1.299715290E+02	-4.568177456E+01
8.4000	2.071504046E+00	-1.086044162E+00	1.302407114E+02	-4.886104992E+01

$$\Omega = 2 \ln(2h/a) = 7$$

$k_0 h$	$\text{Re} \{ I_a(k_0 h) / hE \ln \epsilon \}$	$\text{Im} \{ I_a(k_0 h) / hE \ln \epsilon \}$	$\text{Re} \{ Z_a(k_0 h) \}$	$\text{Im} \{ Z_a(k_0 h) \}$
8.4500	2.036598124E+00	-1.095022500E+00	1.301455548E+02	-5.201321619E+01
8.5000	2.003995644E+00	-1.103222045E+00	1.297011689E+02	-5.509273482E+01
8.5500	1.973479087E+00	-1.111081878E+00	1.289262425E+02	-5.802529476E+01
8.6000	1.944838751E+00	-1.118666707E+00	1.278424735E+02	-6.094079266E+01
8.6500	1.917872850E+00	-1.126244261E+00	1.264736901E+02	-6.363754661E+01
8.7000	1.892386820E+00	-1.133996628E+00	1.248452147E+02	-6.615319272E+01
8.7500	1.868192093E+00	-1.142086139E+00	1.229832768E+02	-6.846852442E+01
8.8000	1.845104444E+00	-1.150659258E+00	1.209145146E+02	-7.056736244E+01
8.8500	1.822942017E+00	-1.15949473E+00	1.186655959E+02	-7.243872650E+01
8.9000	1.801523057E+00	-1.16780391E+00	1.162625243E+02	-7.407160452E+01
8.9500	1.780663442E+00	-1.180567442E+00	1.137315844E+02	-7.545992530E+01
9.0000	1.760173874E+00	-1.192319299E+00	1.110976738E+02	-7.659900120E+01
9.0500	1.739856961E+00	-1.205139622E+00	1.083849631E+02	-7.748646713E+01
9.1000	1.719503373E+00	-1.219122188E+00	1.056168068E+02	-7.812174254E+01
9.1500	1.699389184E+00	-1.234360277E+00	1.028156834E+02	-7.850575775E+01
9.2000	1.677770886E+00	-1.250235233E+00	1.000031615E+02	-7.864110037E+01
9.2500	1.655881591E+00	-1.266019011E+00	9.720000979E+01	-7.853138290E+01
9.3000	1.632926318E+00	-1.283369458E+00	9.442620222E+01	-7.818144806E+01
9.3500	1.608577252E+00	-1.302325048E+00	9.170096442E+01	-7.759710573E+01
9.4000	1.582469003E+00	-1.331797697E+00	8.904290920E+01	-7.678549952E+01
9.4500	1.554194242E+00	-1.355763189E+00	8.646995258E+01	-7.575445435E+01
9.5000	1.523300263E+00	-1.381148769E+00	8.399943780E+01	-7.451290725E+01
9.5500	1.489287286E+00	-1.407817347E+00	8.164803751E+01	-7.307063080E+01
9.6000	1.451609728E+00	-1.435547934E+00	7.942211447E+01	-7.143906061E+01
9.6500	1.409682120E+00	-1.464012078E+00	7.736677853E+01	-6.963003197E+01
9.7000	1.362891900E+00	-1.492746575E+00	7.546806318E+01	-6.765690230E+01
9.7500	1.310621915E+00	-1.521123554E+00	7.374878748E+01	-6.553461655E+01
9.8000	1.252285763E+00	-1.549320259E+00	7.222267190E+01	-6.327877918E+01
9.8500	1.187379187E+00	-1.577292904E+00	7.090191148E+01	-6.090663955E+01
9.9000	1.115549730E+00	-1.594761179E+00	6.979751397E+01	-5.843672741E+01
9.9500	1.036684492E+00	-1.611212779E+00	6.891908178E+01	-5.588892575E+01
10.0000	9.510115116E-01	-1.620939345E+00	6.827459736E+01	-5.328440073E+01
10.0500	8.592037270E-01	-1.622115356E+00	6.787019135E+01	-5.064551048E+01
10.1000	7.624665727E-01	-1.612927933E+00	6.770990488E+01	-4.799566693E+01
10.1500	6.625830427E-01	-1.593175646E+00	6.779547121E+01	-4.535913180E+01
10.2000	5.618878916E-01	-1.557386462E+00	6.812604170E+01	-4.276082522E+01
10.2500	4.631491775E-01	-1.500224483E+00	6.869808505E+01	-4.022594798E+01
10.3000	3.693537200E-01	-1.447467558E+00	6.950518276E+01	-3.777969004E+01
10.3500	2.834201560E-01	-1.373178602E+00	7.053795063E+01	-3.544682711E+01
10.4000	2.078898331E-01	-1.288235045E+00	7.178401169E+01	-3.325129857E+01
10.4500	1.446597391E-01	-1.195153941E+00	7.322804316E+01	-3.121576594E+01
10.5000	9.481421212E-02	-1.096812054E+00	7.485191850E+01	-2.936117179E+01
10.5500	5.858501985E-02	-9.961482104E-01	7.663486182E+01	-2.770628909E+01
10.6000	3.543374029E-02	-8.958809618E-01	7.855382205E+01	-2.626734639E+01
10.6500	2.422147341E-02	-7.983062986E-01	8.058378623E+01	-2.505766030E+01
10.7000	2.341802430E-02	-7.051985176E-01	8.269908138E+01	-2.408643493E+01
10.7500	3.130647913E-02	-6.177391489E-01	8.487044715E+01	-2.336216228E+01
10.8000	4.615320515E-02	-5.366617948E-01	8.707064190E+01	-2.288717137E+01
10.8500	6.633004315E-02	-4.622355700E-01	8.927156780E+01	-2.266114347E+01
10.9000	9.038866513E-02	-3.944129317E-01	9.144566467E+01	-2.268023710E+01
10.9500	1.170949356E-01	-3.329146217E-01	9.356634775E+01	-2.29373605E+01
11.0000	1.454342778E-01	-2.773119373E-01	9.560852053E+01	-2.342232144E+01
11.0500	1.745984785E-01	-2.270917009E-01	9.754880097E+01	-2.412213846E+01
11.1000	2.039623821E-01	-1.817059029E-01	9.936631964E+01	-2.502131203E+01
11.1500	2.330567905E-01	-1.406046792E-01	1.010422771E+02	-2.610245478E+01
11.2000	2.615412611E-01	-1.032582861E-01	1.025605614E+02	-2.734650639E+01

$$\Omega = 2 \ln(2h/a) = 7$$

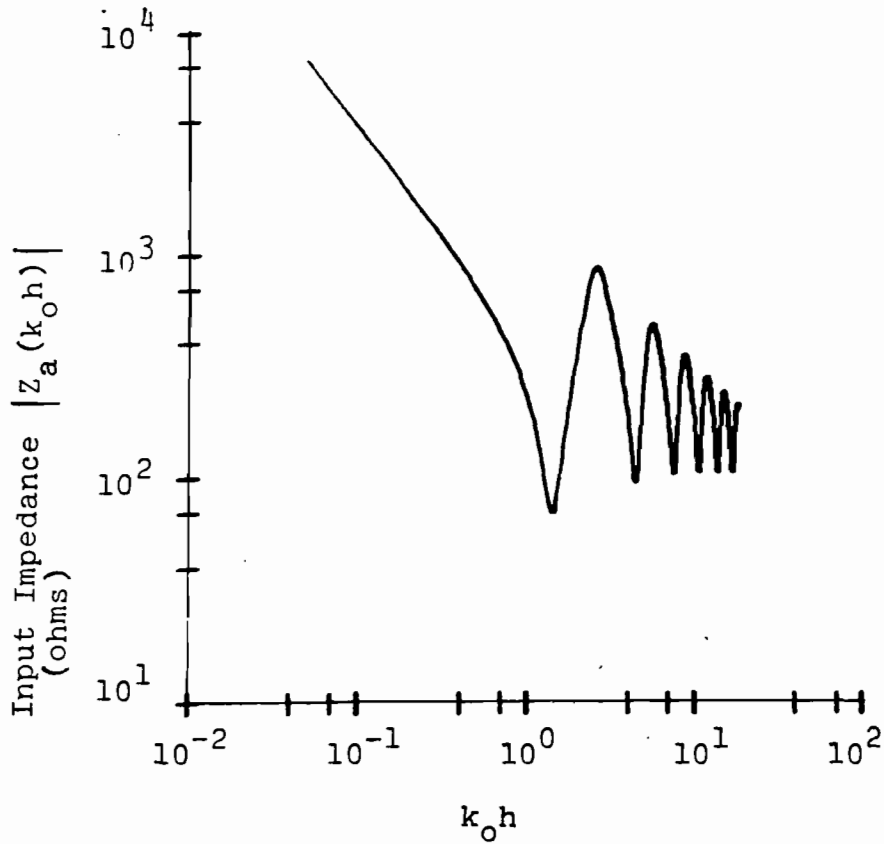
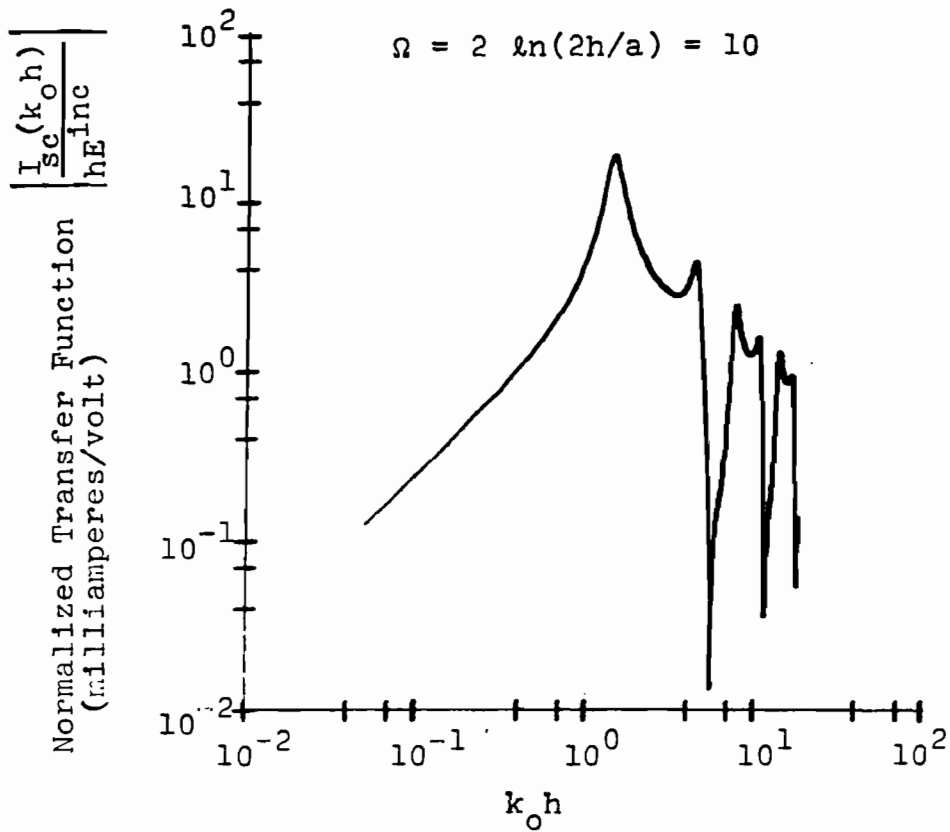
$k_0 h$	$\text{Re} \{ I_a(k_0 h)/hE^{inc} \}$	$\text{Im} \{ I_a(k_0 h)/hE^{inc} \}$	$\text{Re} \{ Z_a(k_0 h) \}$	$\text{Im} \{ Z_a(k_0 h) \}$
11.2500	2.891791136E-01	-6.917308015E-02	1.039077321E+02	-2.873319398E+01
11.3000	3.158157041E-01	-3.789219548E-02	1.050722276E+02	-3.024152793E+01
11.3500	3.413601907E-01	-9.003791419E-03	1.060482799E+02	-3.184979659E+01
11.4000	3.657707015E-01	1.786255141E-02	1.068291554E+02	-3.353648135E+01
11.4500	3.890425840E-01	4.303754479E-02	1.074092025E+02	-3.528098184E+01
11.5000	4.111988065E-01	6.681542902E-02	1.077910421E+02	-3.706080926E+01
11.5500	4.322836697E-01	8.945768615E-02	1.079747307E+02	-3.885644682E+01
11.6000	4.523567209E-01	1.111967447E-01	1.079634079E+02	-4.064348800E+01
11.6500	4.714802567E-01	1.322325544E-01	1.077618972E+02	-4.241851307E+01
11.7000	4.897615039E-01	1.527710014E-01	1.073765126E+02	-4.414018129E+01
11.7500	5.072607629E-01	1.729567677E-01	1.068149609E+02	-4.592420196E+01
11.8000	5.240802271E-01	1.929460725E-01	1.060856724E+02	-4.742983239E+01
11.8500	5.402186941E-01	2.129733819E-01	1.051095678E+02	-4.894882252E+01
11.9000	5.560799527E-01	2.328627991E-01	1.041642785E+02	-5.037170022E+01
11.9500	5.714726636E-01	2.530246739E-01	1.032984118E+02	-5.168361667E+01
12.0000	5.866156765E-01	2.734612234E-01	1.025998553E+02	-5.298175345E+01
12.0500	6.016290207E-01	2.942657840E-01	1.020203897E+02	-5.426402567E+01
12.1000	6.164450593E-01	3.155226406E-01	1.015806304E+02	-5.553805762E+01
12.1500	6.310904863E-01	3.372074041E-01	1.012086121E+02	-5.680480475E+01
12.2000	6.456250707E-01	3.592866226E-01	1.008526102E+02	-5.806376921E+01
12.2500	6.601177755E-01	3.827151173E-01	1.005084444E+02	-5.931544444E+01
12.3000	6.737357705E-01	4.064271471E-01	1.002050770E+02	-6.055770275E+01
12.3500	6.871130765E-01	4.302208951E-01	1.000256404E+02	-6.178206655E+01
12.4000	7.002576584E-01	4.540505359E-01	9.984680217E+01	-6.299048444E+01
12.4500	7.133060749E-01	4.779515418E-01	9.963692452E+01	-6.418202392E+01
12.5000	7.265571710E-01	5.018525192E-01	9.940412382E+01	-6.535811471E+01
12.5500	7.396452282E-01	5.257018536E-01	9.915746140E+01	-6.652306855E+01
12.6000	7.524916217E-01	5.493263035E-01	9.890151767E+01	-6.767807065E+01
12.6500	7.650983225E-01	5.727339270E-01	9.863724529E+01	-6.881621622E+01
12.7000	7.773572728E-01	5.959304932E-01	9.836541112E+01	-6.993844595E+01
12.7500	7.892702272E-01	6.189227790E-01	9.808590156E+01	-7.104888369E+01
12.8000	8.008402114E-01	6.414486276E-01	9.779849535E+01	-7.214772079E+01
12.8500	8.120801102E-01	6.635776711E-01	9.750325341E+01	-7.323468842E+01
12.9000	8.230677761E+00	6.852038497E-01	9.720028198E+01	-7.430955651E+01
12.9500	8.338464511E+00	7.064158680E-01	9.689027386E+01	-7.537366310E+01
13.0000	8.44395472E+00	7.266179106E-01	9.657298256E+01	-7.64279420E+01
13.0500	8.547186351E+00	7.459274838E-01	9.624922933E+01	-7.747292933E+01
13.1000	8.648069381E+00	7.643589822E-01	9.592003925E+01	-7.850839253E+01
13.1500	8.746931520E+00	7.819629625E-01	9.558534903E+01	-7.95340337E+01
13.2000	8.843920885E+00	7.986907181E-01	9.524525011E+01	-8.055086671E+01
13.2500	8.939223657E+00	8.145947504E-01	9.489979337E+01	-8.155815126E+01
13.3000	9.032902125E+00	8.297240451E-01	9.454906607E+01	-8.25460077E+01
13.3500	9.125775366E+00	8.441401118E-01	9.419308696E+01	-8.351580869E+01
13.4000	9.217734969E+00	8.577139859E-01	9.383185072E+01	-8.446751950E+01
13.4500	9.30869065E+00	8.705937141E-01	9.346539780E+01	-8.540043649E+01
13.5000	9.398641898E+00	8.827277657E-01	9.309356021E+01	-8.631497046E+01
13.5500	9.487592797E+00	8.941781543E-01	9.271628250E+01	-8.721004093E+01
13.6000	9.575316841E+00	9.04946800E-01	9.233332817E+01	-8.808561950E+01
13.6500	9.661983206E+00	9.151193686E-01	9.19454132E+01	-8.89420179E+01
13.7000	9.747620109E+00	9.246208100E-01	9.155258590E+01	-8.977917910E+01
13.7500	9.832123216E+00	9.334194565E-01	9.115482668E+01	-9.0597222E+01
13.8000	9.915187386E+00	9.415061617E-01	9.075218789E+01	-9.139702164E+01
13.8500	9.996847423E+00	9.489131198E-01	9.034521878E+01	-9.217816560E+01
13.9000	1.007540148E+00	9.55654018E-01	8.993397244E+01	-9.294181514E+01
13.9500	1.018215898E+00	9.617840982E-01	8.951893984E+01	-9.368806541E+01
14.0000	1.028544937E+00	9.673096301E-01	8.90999399E+01	-9.441718936E+01

$$\Omega = 2 \ln(2h/a) = 7$$

$k_0 h$	$\text{Re} \left\{ I_a(k_0 h) / hE_1^{inc} \right\}$	$\text{Im} \left\{ I_a(k_0 h) / hE_1^{inc} \right\}$	$\text{Re} \left\{ Z_a(k_0 h) \right\}$	$\text{Im} \left\{ Z_a(k_0 h) \right\}$
14.0500	1.066019011F+00	8.543156505E-02	8.470299235E+01	-2.012432117E+01
14.1000	1.854458723E+00	4.794376540E-02	8.607665727E+01	-2.025714766E+01
14.1500	1.841285426E+00	1.222774129E-02	8.720404034E+01	-2.052022042E+01
14.2000	1.826940564E+00	-1.857429236E-02	8.865201937E+01	-2.093292894E+01
14.2500	1.811792231E+00	-4.775276113E-02	8.982615264E+01	-2.145054930E+01
14.3000	1.796144620E+00	-7.452514527E-02	9.093685221E+01	-2.209945501E+01
14.3500	1.780237679E+00	-2.911169670E-02	9.194487364E+01	-2.284228601E+01
14.4000	1.764262194E+00	-1.217272507E-01	9.285223627E+01	-2.367711135E+01
14.4500	1.748363426E+00	-1.426207682E-01	9.365223345E+01	-2.459255161E+01
14.5000	1.732648775E+00	-1.612714305E-01	9.433933086E+01	-2.557792941E+01
14.5500	1.717193852E+00	-1.790287307E-01	9.490924203E+01	-2.661271001E+01
14.6000	1.702047767E+00	-1.963536655E-01	9.535880288E+01	-2.770576052E+01
14.6500	1.687237606E+00	-2.127426574E-01	9.569526527E+01	-2.882687125E+01
14.7000	1.672772101E+00	-2.27813551E-01	9.588068854E+01	-2.996881542E+01
14.7500	1.658644597E+00	-2.412131363E-01	9.596903703E+01	-3.112140182E+01
14.8000	1.644835430E+00	-2.530764600E-01	9.592760534E+01	-3.227345206E+01
14.8500	1.631313716E+00	-2.635276908E-01	9.576446441E+01	-3.341227367E+01
14.9000	1.618038707E+00	-2.726307422E-01	9.549312406E+01	-3.453072346E+01
14.9500	1.604960718E+00	-2.804401226E-01	9.506608964E+01	-3.561618264E+01
15.0000	1.592021718E+00	-2.869215272E-01	9.449204087E+01	-3.665689232E+01
15.0500	1.579155671E+00	-2.921352208E-01	9.376793104E+01	-3.764617209E+01
15.1000	1.5662988524E+00	-2.962712732E-01	9.295529175E+01	-3.857329175E+01
15.1500	1.5533368153E+00	-3.003301832E-01	9.204881322E+01	-3.943264911E+01
15.2000	1.5402713029E+00	-3.043013000E-01	9.105521308E+01	-4.021305511E+01
15.2500	1.526916639E+00	-3.074109522E-01	9.008239803E+01	-4.090814179E+01
15.3000	1.513232737E+00	-3.106297500E-01	8.913324200E+01	-4.151105991E+01
15.3500	1.4992757662E+00	-3.140285547E-01	8.821160586E+01	-4.201561826E+01
15.4000	1.485048658E+00	-3.175892848E-01	8.731780514E+01	-4.241652762E+01
15.4500	1.469172984E+00	-3.214788861E-01	8.645866842E+01	-4.270951003E+01
15.5000	1.451574492E+00	-3.257156370E-01	8.562257060E+01	-4.289326201E+01
15.5500	1.433389263E+00	-3.302314203E-01	8.481742200E+01	-4.295229903E+01
15.6000	1.414074647E+00	-3.35027474E-01	8.403204756E+01	-4.289262605E+01
15.6500	1.394624120E+00	-3.401167466E-01	8.326552627E+01	-4.272926200E+01
15.7000	1.372664021E+00	-3.455020720E-01	8.252723150E+01	-4.24867591E+01
15.7500	1.348313777E+00	-3.512276052E-01	8.18144641E+01	-4.203214377E+01
15.8000	1.322310158E+00	-3.573210283E-01	8.113462307E+01	-4.151113587E+01
15.8500	1.295221301E+00	-3.637872126E-01	8.048450175E+01	-4.087034207E+01
15.9000	1.265197373E+00	-3.70626737E-01	7.985007461E+01	-4.014176262E+01
15.9500	1.232646246E+00	-3.778571822E-01	7.923759101E+01	-3.930440094E+01
16.0000	1.197641074E+00	-3.855802180E-01	7.863206815E+01	-3.837482615E+01
16.0500	1.159164769E+00	-3.938018932E-01	7.803701014E+01	-3.736174895E+01
16.1000	1.120286268E+00	-4.025018742E-01	7.745310473E+01	-3.627389475E+01
16.1500	1.079143082E+00	-4.116237424E-01	7.687954314E+01	-3.512233639E+01
16.2000	1.034057346E+00	-4.211226345E-01	7.631607483E+01	-3.391828681E+01
16.2500	9.88332082E-01	-4.310471372E-01	7.576275650E+01	-3.267385231E+01
16.3000	9.41444650E-01	-4.41350927E-01	7.521907461E+01	-3.140157654E+01
16.3500	8.940227780E-01	-4.520486583E-01	7.469370068E+01	-3.011445033E+01
16.4000	8.465652228E-01	-4.631000512E-01	7.418904430E+01	-2.882522214E+01
16.4500	8.000634954E-01	-4.745221878E-01	7.370468440E+01	-2.754693276E+01
16.5000	7.540571820E-01	-4.863040258E-01	7.323721014E+01	-2.629222996E+01
16.5500	7.120243982E-01	-4.983989556E-01	7.278214749E+01	-2.507329412E+01
16.6000	6.718877181E-01	-5.107090126E-01	7.233726716E+01	-2.390167106E+01
16.6500	6.350712018E-01	-5.232382210E-01	7.19003749E+01	-2.278807199E+01
16.7000	6.019750527E-01	-5.35985004E-01	7.147524191E+01	-2.174236721E+01
16.7500	5.728616305E-01	-5.489364532E-01	7.105713407E+01	-2.077331513E+01
16.8000	5.478534975E-01	-5.620251131E-01	7.06448362E+01	-1.988833365E+01

$$\Omega = 2 \ln(2h/a) = 7$$

$k_0 h$	$\text{Re} \{ I_a(k_0 h)/hE^{\text{inc}} \}$	$\text{Im} \{ I_a(k_0 h)/hE^{\text{inc}} \}$	$\text{Re} \{ Z_a(k_0 h) \}$	$\text{Im} \{ Z_a(k_0 h) \}$
16.8500	5.269414115E-01	-2.862501854E-01	7.247784949E+01	-1.602390264E+01
16.9000	5.100018924E-01	-2.420444425E-01	7.434502621E+01	-1.820514707E+01
16.9500	4.968100076E-01	-1.998475050E-01	7.525721520E+01	-1.779602408E+01
17.0000	4.871089090E-01	-1.573917044E-01	7.620381869E+01	-1.729914140E+01
17.0500	4.805438348E-01	-1.159235758E-01	7.717386773E+01	-1.690598432E+01
17.1000	4.767737476E-01	-7.570542561E-02	7.815676261E+01	-1.661694256E+01
17.1500	4.754443103E-01	-3.692151518E-02	7.914214296E+01	-1.643099922E+01
17.2000	4.762111463E-01	3.121348033E-04	8.011989561E+01	-1.634666922E+01
17.2500	4.787499073E-01	3.594236183E-02	8.108049712E+01	-1.636132589E+01
17.3000	4.827629947E-01	6.995829647E-02	8.201479815E+01	-1.647126752E+01
17.3500	4.870832709E-01	1.022912327E-01	8.291454352E+01	-1.667262814E+01
17.4000	4.921756024E-01	1.333005111E-01	8.377177542E+01	-1.696020855E+01
17.4500	5.011365015E-01	1.627666461E-01	8.457922787E+01	-1.732966944E+01
17.5000	5.086930293E-01	1.908847131E-01	8.533053560E+01	-1.777198997E+01
17.5500	5.167004590E-01	2.177589709E-01	8.601950500E+01	-1.828408852E+01
17.6000	5.250400183E-01	2.434987411E-01	8.664132103E+01	-1.885786085E+01
17.6500	5.336163594E-01	2.602150410E-01	8.719100626E+01	-1.948677144E+01
17.7000	5.423549877E-01	2.690182699E-01	8.766482630E+01	-2.016236131E+01
17.7500	5.511994386E-01	2.715016430E-01	8.805945681E+01	-2.089040439E+01



$$\Omega = 2 \ln(2h/a) = 10$$

$k_0 h$	$\text{Re} \left\{ I_a(k_0 h) / hE^{\text{inc}} \right\}$	$\text{Im} \left\{ I_a(k_0 h) / hE^{\text{inc}} \right\}$	$\text{Re} \left\{ Z_a(k_0 h) \right\}$	$\text{Im} \left\{ Z_a(k_0 h) \right\}$
0.2500	1.241620773E-06	1.214270754E-01	4.250939722E-02	-7.597242020E+02
0.5000	1.678819186E-05	2.437966462E-01	1.760208141E-01	-3.783061791E+02
0.7500	8.503674897E-05	3.690738803E-01	3.246933606E-01	-2.513069356E+02
1.0000	2.766508768E-04	4.952703935E-01	6.865403024E-01	-1.871732234E+02
1.2500	6.907116754E-04	6.264703188E-01	1.078834261E+00	-1.484531045E+02
1.5000	1.472478480E-03	7.628600473E-01	1.565216262E+00	-1.224272581E+02
1.7500	2.829043373E-03	9.057673294E-01	2.149837067E+00	-1.036390422E+02
2.0000	5.102039860E-03	1.056683884E+00	2.837267471E+00	-8.936273611E+01
2.2500	8.381474224E-03	1.217358349E+00	3.635476396E+00	-7.810230309E+01
2.5000	1.344983316E-02	1.389823393E+00	4.549926715E+00	-6.893690864E+01
2.7500	2.087632444E-02	1.576302222E+00	5.586633995E+00	-6.129249994E+01
3.0000	3.157984109E-02	1.780317757E+00	6.764529115E+00	-5.473432766E+01
3.2500	4.683572264E-02	2.004842502E+00	8.085939342E+00	-4.914576445E+01
3.5000	6.843691429E-02	2.254500885E+00	9.566005001E+00	-4.418512753E+01
3.7500	9.894205041E-02	2.534840463E+00	1.122226190E+01	-3.976122248E+01
4.0000	1.420657256E-01	2.852907172E+00	1.306958204E+01	-3.576871663E+01
4.2500	2.023080627E-01	3.217756604E+00	1.512857673E+01	-3.212536523E+01
4.5000	2.809956578E-01	3.641154263E+00	1.742106914E+01	-2.876708413E+01
4.7500	4.100573326E-01	4.138508483E+00	1.997041914E+01	-2.564489030E+01
5.0000	6.051433294E-01	4.730026947E+00	2.282396509E+01	-2.271228027E+01
5.2500	8.862924116E-01	5.441044821E+00	2.609411392E+01	-1.993786755E+01
5.5000	1.319435602E+00	6.306627639E+00	2.983015217E+01	-1.729335424E+01
5.7500	2.006508233E+00	7.358332224E+00	3.478802966E+01	-1.475420390E+01
6.0000	3.130484900E+00	8.612291833E+00	4.089437975E+01	-1.229972694E+01
6.2500	5.014566333E+00	1.009930460E+01	4.828017754E+01	-9.911879720E+00
6.5000	8.152190831E+00	1.198406890E+01	5.689017722E+01	-7.574850201E+00
6.7500	1.285353305E+01	1.057361140E+01	6.683100500E+01	-5.274684916E+00
7.0000	1.774974519E+01	6.826662832E+00	7.816647652E+01	-2.992028805E+00
7.2500	1.917012623E+01	1.593495284E-01	9.061143834E+01	-7.370346961E+00
7.5000	1.649592693E+01	-5.126065148E+00	1.041282516E+01	1.520747607E+01
7.7500	1.277984982E+01	-7.440690761E+00	1.198370862E+01	3.792162444E+01
8.0000	9.761402087E+00	-7.945149006E+00	1.304821378E+01	6.052224781E+01
8.2500	7.619021564E+00	-7.712715764E+00	1.378730635E+01	8.237628790E+01
8.5000	6.127898792E+00	-7.246694371E+00	1.400297531E+01	1.063598853E+01
8.7500	5.072508546E+00	-6.741976514E+00	1.465419563E+01	1.294460971E+01
9.0000	4.305370086E+00	-6.266714867E+00	1.516714205E+01	1.525428280E+01
9.2500	3.732228687E+00	-5.840601541E+00	1.550022055E+01	1.754702227E+01
9.5000	3.293013484E+00	-5.465467762E+00	1.569205547E+01	1.979366494E+01
9.7500	2.949741611E+00	-5.137054027E+00	1.574805282E+01	2.194890678E+01
10.0000	2.673489551E+00	-4.849519657E+00	1.567044671E+01	2.394542074E+01
10.2500	2.440574179E+00	-4.597006562E+00	1.546262130E+01	2.568632175E+01
10.5000	2.264625567E+00	-4.374657701E+00	1.512002055E+01	2.703652489E+01
10.7500	2.102837521E+00	-4.177827159E+00	1.467184407E+01	2.781424269E+01
11.0000	1.978730425E+00	-4.002740047E+00	1.4147189416E+01	2.778616390E+01
11.2500	1.866518247E+00	-3.846940114E+00	1.3529817157E+01	2.667267464E+01
11.5000	1.769573063E+00	-3.707325232E+00	1.282665977E+01	2.417262617E+01
11.7500	1.685107845E+00	-3.581967275E+00	1.209388272E+01	2.001932450E+01
12.0000	1.610951120E+00	-3.469124899E+00	1.129973785E+01	1.406932886E+01
12.2500	1.545388983E+00	-3.367335764E+00	1.045211122E+01	6.400732040E+00
12.5000	1.487052394E+00	-3.275374410E+00	9.540997717E+00	-2.572728322E+01
12.7500	1.434835515E+00	-3.192210865E+00	8.528262216E+00	-1.220264810E+01
13.0000	1.387835628E+00	-3.116977301E+00	7.477974054E+00	-2.165424619E+01
13.2500	1.345308326E+00	-3.048844200E+00	6.317825448E+00	-3.017305579E+01
13.5000	1.306633604E+00	-2.987423607E+00	5.017735237E+00	-3.723414500E+01
13.7500	1.271289871E+00	-2.932108405E+00	3.702901405E+00	-4.260973406E+01
14.0000	1.238833738E+00	-2.882355124E+00	2.484337875E+00	-4.633433051E+01

$$\Omega = 2 \ln(2h/a) = 10$$

$k_0 h$	$\text{Re} \left\{ I_a(k_0 h)/hE^{inc} \right\}$	$\text{Im} \left\{ I_a(k_0 h)/hE^{inc} \right\}$	$\text{Re} \left\{ Z_a(k_0 h) \right\}$	$\text{Im} \left\{ Z_a(k_0 h) \right\}$
2.8500	1.208884064E+00	-2.837874320E+00	5.511678701E+02	-4.560547214E+02
2.9000	1.191109141E+00	-2.799372044E+00	4.910584931E+02	-4.060042521E+02
2.9500	1.155216180E+00	-2.763613348E+00	4.360167706E+02	-4.086025487E+02
3.0000	1.130942523E+00	-2.733417441E+00	3.866192526E+02	-4.035397417E+02
3.0500	1.108047894E+00	-2.707654287E+00	3.428582564E+02	-4.006641321E+02
3.1000	1.086307520E+00	-2.686242525E+00	3.043000140E+02	-4.704812679E+02
3.1500	1.065505632E+00	-2.668148604E+00	2.707568876E+02	-4.551133900E+02
3.2000	1.045428839E+00	-2.656387135E+00	2.413240013E+02	-4.388777310E+02
3.2500	1.025859260E+00	-2.648402445E+00	2.157869993E+02	-4.208025000E+02
3.3000	1.006566870E+00	-2.644171424E+00	1.924549732E+02	-4.000434917E+02
3.3500	9.873004137E-01	-2.645007742E+00	1.708664501E+02	-3.840262730E+02
3.4000	9.677704038E-01	-2.650737508E+00	1.508409057E+02	-3.660855470E+02
3.4500	9.476657165E-01	-2.661757110E+00	1.320849120E+02	-3.492374573E+02
3.5000	9.265747242E-01	-2.677361702E+00	1.140996012E+02	-3.317516560E+02
3.5500	9.040225011E-01	-2.701057321E+00	1.077654403E+02	-3.145652230E+02
3.6000	8.794093891E-01	-2.730432810E+00	1.026004000E+02	-2.976010550E+02
3.6500	8.519682392E-01	-2.767160000E+00	9.831579760E+01	-2.811201100E+02
3.7000	8.207130657E-01	-2.812009810E+00	9.480388520E+01	-2.646241680E+02
3.7500	7.843425138E-01	-2.866225171E+00	9.255101010E+01	-2.482741856E+02
3.8000	7.411457208E-01	-2.930676958E+00	9.019731111E+01	-2.361361200E+02
3.8500	6.897790952E-01	-3.006742551E+00	7.571610465E+01	-2.176212415E+02
3.9000	6.240769374E-01	-3.095317367E+00	7.200501472E+01	-2.023002010E+02
3.9500	5.426734603E-01	-3.193273851E+00	6.022583200E+01	-1.871424650E+02
4.0000	4.385106400E-01	-3.318190127E+00	6.706133674E+01	-1.721221407E+02
4.0500	3.022160736E-01	-3.461021376E+00	6.401011981E+01	-1.573017485E+02
4.1000	1.252068556E-01	-3.621072024E+00	6.382087212E+01	-1.423710290E+02
4.1500	-1.110060174E-01	-3.757062480E+00	6.582087875E+01	-1.276077081E+02
4.2000	-4.249120774E-01	-3.866549326E+00	6.602405875E+01	-1.129791893E+02
4.2500	-9.874319752E-01	-4.025007706E+00	6.007010306E+01	-9.817003007E+01
4.3000	-1.362000460E+00	-4.157970063E+00	7.160010843E+01	-8.250010421E+01
4.3500	-1.084220045E+00	-4.232485603E+00	7.044142660E+01	-6.084330405E+01
4.4000	-2.631548012E+00	-4.250007027E+00	8.010700262E+01	-5.421080164E+01
4.4500	-3.164498816E+00	-4.243189470E+00	8.483604600E+01	-3.423675366E+01
4.5000	-3.434904507E+00	-4.217442810E+00	8.308416006E+01	-2.510574002E+01
4.5500	-3.388546044E+00	-4.125098458E+00	1.013538463E+02	-1.027705406E+01
4.6000	-3.102620004E+00	-4.000072857E-01	1.110517245E+02	3.185212475E+00
4.6500	-2.600031730E+00	-3.827742366E-01	1.002709313E+02	1.688585448E+01
4.7000	-2.270447320E+00	-3.544502448E-02	1.051401262E+02	2.005042413E+01
4.7500	-1.895600597E+00	-2.532026728E-01	1.407845912E+02	4.250408637E+01
4.8000	-1.565902320E+00	-1.076482231E-01	1.663163025E+02	5.808635682E+01
4.8500	-1.200804704E+00	3.501111518E-01	1.248201850E+02	6.410347300E+01
4.9000	-1.063868220E+00	3.422110307E-01	2.063322571E+02	7.254566540E+01
4.9500	-8.770241525E-01	2.195504220E-01	2.079108470E+02	7.892885565E+01
5.0000	-7.227560010E-01	0.881205426E-01	2.531400410E+02	8.243644280E+01
5.0500	-5.946556238E-01	0.526478866E-01	2.790153186E+02	9.281315245E+01
5.1000	-4.875771302E-01	2.138040074E-01	2.740054044E+02	7.040207712E+01
5.1500	-3.974320454E-01	1.252003000E-01	2.324241737E+02	7.170031651E+01
5.2000	-3.210052881E-01	1.537223113E-01	2.594853260E+02	5.933636101E+01
5.2500	-2.557409455E-01	1.248020475E-01	2.851203474E+02	4.214447012E+01
5.3000	-1.996984547E-01	0.861008166E-02	4.052402871E+02	2.325893902E+01
5.3500	-1.512216555E-01	7.516842850E-02	4.276920452E+02	-5.845389055E+00
5.4000	-1.090870744E-01	5.441450001E-02	4.424007753E+02	-3.534270775E+01
5.4500	-7.224212222E-02	3.624170222E-02	4.510070273E+02	-6.711337265E+01
5.5000	-3.886502300E-02	2.052442107E-02	4.553752748E+02	-0.883706943E+01
5.5500	-1.127872547E-02	7.121042723E-03	4.535345550E+02	-1.322403094E+02
5.6000	1.438014016E-02	-4.061007706E-03	4.462010202E+02	-1.530446420E+02

$$\Omega = 2 \ln(2h/a) = 10$$

$k_0 h$	$\text{Re} \{ I_a(k_0 h) / hE^{inc} \}$	$\text{Im} \{ I_a(k_0 h) / hE^{inc} \}$	$\text{Re} \{ Z_a(k_0 h) \}$	$\text{Im} \{ Z_a(k_0 h) \}$
5.6500	3.657681994E-02	-1.317412392E-02	4.242927076E+02	-1.912811061E+02
5.7000	5.690218382E-02	-2.030052319E-02	4.186601644E+02	-2.162547622E+02
5.7500	7.509687437E-02	-2.555028405E-02	4.003042532E+02	-2.375726010E+02
5.8000	9.151326541E-02	-2.900023586E-02	3.800991064E+02	-2.551112116E+02
5.8500	1.064250088E-01	-3.069458020E-02	3.586613275E+02	-2.689503064E+02
5.9000	1.200348278E-01	-3.068986795E-02	3.372619147E+02	-2.793526726E+02
5.9500	1.325309442E-01	-2.901880341E-02	3.158266874E+02	-2.866151544E+02
6.0000	1.443825056E-01	-2.569072317E-02	2.949452503E+02	-2.911103784E+02
6.0500	1.548442908E-01	-2.073547714E-02	2.748902439E+02	-2.932068235E+02
6.1000	1.640609236E-01	-1.411400176E-02	2.558341830E+02	-2.932552000E+02
6.1500	1.745709002E-01	-5.807336672E-03	2.378300774E+02	-2.915752259E+02
6.2000	1.833092171E-01	4.220045832E-03	2.210750745E+02	-2.884402019E+02
6.2500	1.929157890E-01	1.605725635E-02	2.054224012E+02	-2.841212533E+02
6.3000	2.017316546E-01	2.975827732E-02	1.909020637E+02	-2.787985488E+02
6.3500	2.107112028E-01	4.543354735E-02	1.774759320E+02	-2.726547377E+02
6.4000	2.199240877E-01	6.320483172E-02	1.650953584E+02	-2.659325510E+02
6.4500	2.295625826E-01	8.322638634E-02	1.527022982E+02	-2.584523022E+02
6.5000	2.398492126E-01	1.056673301E-01	1.422624242E+02	-2.506067969E+02
6.5500	2.512501449E-01	1.307241220E-01	1.327020977E+02	-2.423740712E+02
6.6000	2.627482512E-01	1.586631442E-01	1.240823670E+02	-2.339156555E+02
6.6500	2.775377009E-01	1.897230950E-01	1.170559027E+02	-2.249802669E+02
6.7000	2.927000704E-01	2.242005467E-01	1.008642550E+02	-2.150060824E+02
6.7500	3.125818403E-01	2.624885052E-01	1.004333654E+02	-2.066227267E+02
6.8000	3.349534700E-01	3.048884102E-01	9.767579487E+01	-1.971520067E+02
6.8500	3.618044536E-01	3.517809850E-01	9.258028944E+01	-1.875162138E+02
6.9000	3.944068743E-01	4.035405800E-01	8.815825784E+01	-1.777195981E+02
6.9500	4.344038551E-01	4.604093600E-01	8.427262571E+01	-1.677792518E+02
7.0000	4.839188701E-01	5.224859279E-01	8.122894993E+01	-1.577017720E+02
7.0500	5.456236288E-01	5.895066609E-01	7.872997676E+01	-1.474964125E+02
7.1000	6.231678196E-01	6.606776736E-01	7.682844217E+01	-1.371639346E+02
7.1500	7.206630440E-01	7.326916916E-01	7.570805168E+01	-1.267196134E+02
7.2000	8.432097192E-01	8.050370818E-01	7.522267475E+01	-1.161719996E+02
7.2500	9.961405484E-01	8.679867739E-01	7.545678870E+01	-1.053352003E+02
7.3000	1.183347221E+00	9.110134872E-01	7.644540060E+01	-9.482672042E+01
7.3500	1.407250478E+00	9.313274630E-01	7.822993085E+01	-8.407030030E+01
7.4000	1.659224024E+00	9.766101520E-01	8.085782854E+01	-7.321725290E+01
7.4500	1.922544096E+00	7.583494016E-01	8.428194035E+01	-6.259097622E+01
7.5000	2.163540959E+00	5.562971091E-01	8.898954572E+01	-5.195668170E+01
7.5500	2.344074705E+00	2.802697807E-01	9.425062416E+01	-4.148736872E+01
7.6000	2.424515888E+00	-2.807127271E-02	1.000915488E+02	-3.127440214E+01
7.6500	2.428215499E+00	-3.552419165E-01	1.096116570E+02	-2.143029308E+01
7.7000	2.342229744E+00	-6.743889922E-01	1.174888798E+02	-1.209144462E+01
7.7500	2.205610231E+00	-9.563354025E-01	1.275824074E+02	-3.42029250E+00
7.8000	2.046339400E+00	-1.018924605E+00	1.389103237E+02	4.304079075E+00
7.8500	1.894583250E+00	-1.130072654E+00	1.514545022E+02	1.113608113E+01
7.9000	1.732048715E+00	-1.201092791E+00	1.651601609E+02	1.656770235E+01
7.9500	1.594116555E+00	-1.242796046E+00	1.799199204E+02	2.042523550E+01
8.0000	1.472285657E+00	-1.263985109E+00	1.955442783E+02	2.249075189E+01
8.0500	1.366008963E+00	-1.271264127E+00	2.118535564E+02	2.245841718E+01
8.1000	1.273818790E+00	-1.269367331E+00	2.284742528E+02	2.015543866E+01
8.1500	1.193962273E+00	-1.261502213E+00	2.450423619E+02	1.541637474E+01
8.2000	1.124707662E+00	-1.250244677E+00	2.611157135E+02	8.168213718E+00
8.2500	1.064481070E+00	-1.236946310E+00	2.767162625E+02	-1.557583388E+00
8.3000	1.011911050E+00	-1.222457942E+00	2.898614603E+02	-1.361056621E+01
8.3500	9.658292226E-01	-1.207786954E+00	3.016014963E+02	-2.771831625E+01
8.4000	9.252519824E-01	-1.193306137E+00	3.110573832E+02	-4.849771209E+01

$$\Omega = 2 \ln(2h/a) = 10$$

$k_0 h$	$\text{Re} \left\{ I_a(k_0 h) / hE^{\text{inc}} \right\}$	$\text{Im} \left\{ I_a(k_0 h) / hE^{\text{inc}} \right\}$	$\text{Re} \left\{ Z_a(k_0 h) \right\}$	$\text{Im} \left\{ Z_a(k_0 h) \right\}$
8.4500	3.993558998E-01	-1.179328417E+00	3.179534059E+02	-6.047291609E+01
8.5000	8.574527787E-01	-1.166058059E+00	3.221391049E+02	-7.814605324E+01
8.5500	8.280660175E-01	-1.152625750E+00	3.235053727E+02	-9.506788721E+01
8.6000	8.034154247E-01	-1.142112777E+00	3.224274159E+02	-1.124469073E+02
8.6500	7.803917059E-01	-1.131567576E+00	3.188440302E+02	-1.301467665E+02
8.7000	7.595516245E-01	-1.122017375E+00	3.121296260E+02	-1.457136024E+02
8.7500	7.406022897E-01	-1.112476196E+00	3.056139254E+02	-1.593864092E+02
8.8000	7.232927125E-01	-1.105950517E+00	2.966430927E+02	-1.724055736E+02
8.8500	7.074061602E-01	-1.099244277E+00	2.865561593E+02	-1.834541241E+02
8.9000	6.927539271E-01	-1.092395675E+00	2.766682210E+02	-1.927452221E+02
8.9500	6.791695511E-01	-1.085494653E+00	2.642504447E+02	-2.004016704E+02
9.0000	6.665253404E-01	-1.078606371E+00	2.525639260E+02	-2.065010301E+02
9.0500	6.546275935E-01	-1.071636748E+00	2.407299055E+02	-2.111419195E+02
9.1000	6.424136221E-01	-1.064622444E+00	2.301072535E+02	-2.144221190E+02
9.1500	6.327437592E-01	-1.057609465E+00	2.176203792E+02	-2.165089175E+02
9.2000	6.225234408E-01	-1.050625483E+00	2.064332500E+02	-2.174728470E+02
9.2500	6.126305208E-01	-1.043661109E+00	1.965182219E+02	-2.174339545E+02
9.3000	6.029624159E-01	-1.036731613E+00	1.852233422E+02	-2.165263120E+02
9.3500	5.934092720E-01	-1.029826274E+00	1.752826233E+02	-2.149181102E+02
9.4000	5.839510259E-01	-1.022936623E+00	1.658128060E+02	-2.124046261E+02
9.4500	5.741632156E-01	-1.105512289E+00	1.569346805E+02	-2.003641424E+02
9.5000	5.642030133E-01	-1.114123575E+00	1.482421453E+02	-2.057640700E+02
9.5500	5.539892240E-01	-1.124236145E+00	1.403553524E+02	-2.016618500E+02
9.6000	5.427253240E-01	-1.136215243E+00	1.328513471E+02	-1.971285590E+02
9.6500	5.309406053E-01	-1.149944681E+00	1.259330324E+02	-1.921475347E+02
9.7000	5.179821528E-01	-1.165566444E+00	1.192259080E+02	-1.868157789E+02
9.7500	5.036010721E-01	-1.182320674E+00	1.122250667E+02	-1.811447670E+02
9.8000	4.874092293E-01	-1.200333155E+00	1.076503102E+02	-1.751612658E+02
9.8500	4.699244592E-01	-1.225752016E+00	1.025379252E+02	-1.688891092E+02
9.9000	4.475565624E-01	-1.250724223E+00	9.789992274E+01	-1.622451577E+02
9.9500	4.225677185E-01	-1.278349625E+00	9.374019139E+01	-1.555491785E+02
10.0000	3.930422290E-01	-1.308657759E+00	8.906545644E+01	-1.485159520E+02
10.0500	3.578462200E-01	-1.341557925E+00	8.688578936E+01	-1.412599346E+02
10.1000	3.155872424E-01	-1.376736112E+00	8.421472697E+01	-1.327949389E+02
10.1500	2.645852489E-01	-1.413864574E+00	8.206050610E+01	-1.261364407E+02
10.2000	2.028735237E-01	-1.450822490E+00	8.047113919E+01	-1.192005058E+02
10.2500	1.282739770E-01	-1.486568491E+00	7.944472337E+01	-1.103058666E+02
10.3000	3.860909497E-02	-1.517492747E+00	7.901890171E+01	-1.021747405E+02
10.3500	-6.784416296E-02	-1.533617276E+00	7.922618123E+01	-9.392401312E+01
10.4000	-1.915340205E-01	-1.546953465E+00	8.010226461E+01	-8.561659129E+01
10.4500	-3.304409048E-01	-1.558225629E+00	8.168572992E+01	-7.726262553E+01
10.5000	-4.786744049E-01	-1.568089255E+00	8.401673221E+01	-6.892134927E+01
10.5500	-6.256151762E-01	-1.574655501E+00	8.713591002E+01	-6.065246092E+01
10.6000	-7.566981396E-01	-1.579142213E+00	9.108248095E+01	-5.252775118E+01
10.6500	-8.566643040E-01	-1.110515263E+00	9.599179990E+01	-4.463254555E+01
10.7000	-9.144257776E-01	-9.322095121E-01	1.015922379E+02	-3.706654214E+01
10.7500	-9.268653423E-01	-7.516911446E-01	1.082013379E+02	-2.994591307E+01
10.8000	-8.991410723E-01	-5.842256156E-01	1.157212607E+02	-2.349007516E+01
10.8500	-9.416641753E-01	-4.409208834E-01	1.241336459E+02	-1.757329404E+01
10.9000	-7.663920091E-01	-3.223655697E-01	1.323041277E+02	-1.262001014E+01
10.9500	-6.323932440E-01	-2.328709754E-01	1.434270525E+02	-8.701207057E+00
11.0000	-5.977961746E-01	-1.655732117E-01	1.541208610E+02	-5.976074919E+00
11.0500	-5.167732162E-01	-1.170102608E-01	1.653050341E+02	-4.593994899E+00
11.1000	-4.417146291E-01	-8.287472312E-02	1.768496405E+02	-4.483328617E+00
11.1500	-3.735921085E-01	-5.985037282E-02	1.884681610E+02	-6.340350732E+00
11.2000	-3.125501212E-01	-4.472239743E-02	1.999243120E+02	-8.616790462E+00

$$\Omega = 2 \ln(2h/a) = 10$$

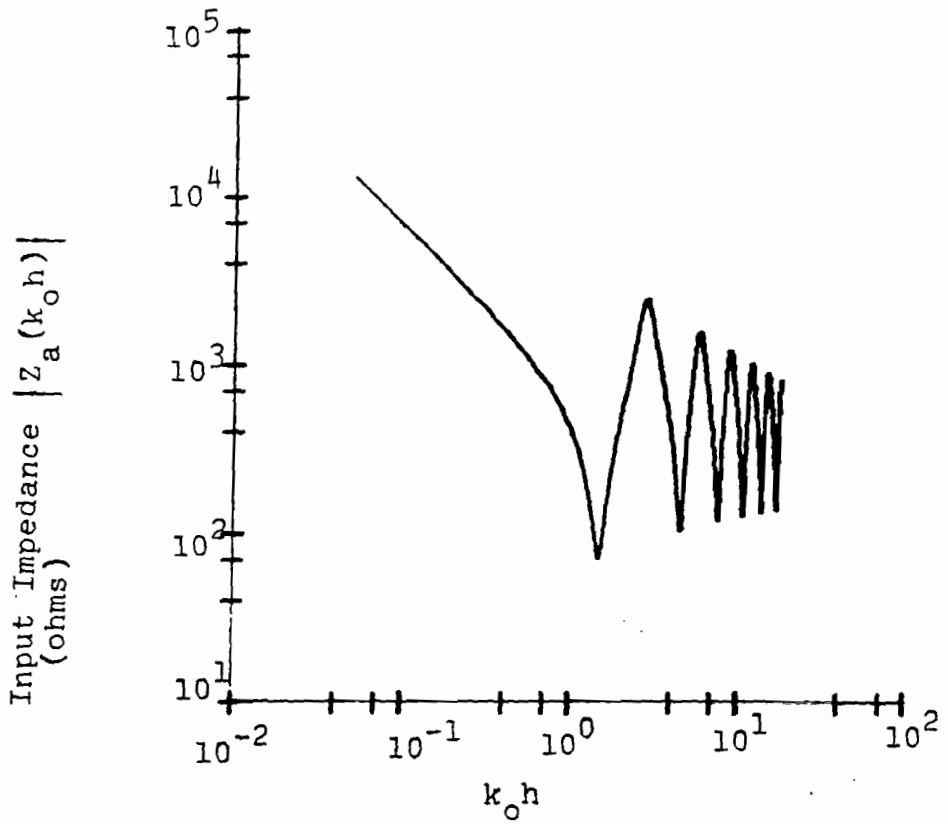
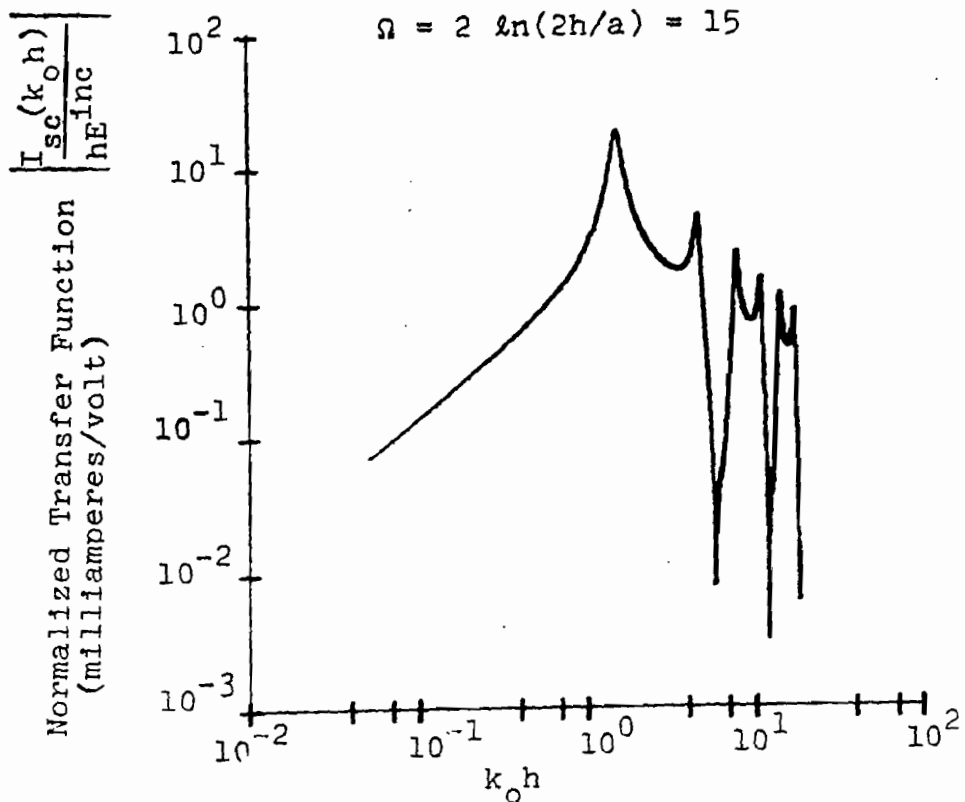
$k_0 h$	$\text{Re} \left\{ I_a(k_0 h) / h E^{inc} \right\}$	$\text{Im} \left\{ I_a(k_0 h) / h E^{inc} \right\}$	$\text{Re} \left\{ Z_a(k_0 h) \right\}$	$\text{Im} \left\{ Z_a(k_0 h) \right\}$
11.2500	-2.582280101E-01	-3.537875578E-02	2.109422617E+02	-1.451050561E+01
11.3000	-2.100661403E-01	-3.010128075E-02	2.212446038E+02	-2.095890892E+01
11.3500	-1.674198982E-01	-2.764678053E-02	2.305621182E+02	-2.882732852E+01
11.4000	-1.296454086E-01	-2.709327253E-02	2.386578801E+02	-3.796293306E+01
11.4500	-9.613970122E-02	-2.775572183E-02	2.453221243E+02	-4.810425132E+01
11.5000	-6.635795908E-02	-2.917102327E-02	2.504694041E+02	-5.829523276E+01
11.5500	-3.981805668E-02	-3.094927544E-02	2.539747193E+02	-7.035212056E+01
11.6000	-1.609851711E-02	-3.283764268E-02	2.558440066E+02	-8.189103221E+01
11.6500	5.166666217E-03	-3.464384006E-02	2.561343710E+02	-9.34654089E+01
11.7000	2.429426121E-02	-3.622671482E-02	2.549118001E+02	-1.044762014E+02
11.7500	4.155881635E-02	-3.748203810E-02	2.523396040E+02	-1.150680185E+02
11.8000	5.719772457E-02	-3.832209310E-02	2.485659550E+02	-1.249759421E+02
11.8500	7.141783424E-02	-3.871795095E-02	2.427620229E+02	-1.340748257E+02
11.9000	8.430272983E-02	-3.852289150E-02	2.331017236E+02	-1.422350180E+02
11.9500	9.630220611E-02	-3.792306935E-02	2.317536206E+02	-1.496418354E+02
12.0000	1.072659426E-01	-3.687438045E-02	2.268751200E+02	-1.558398446E+02
12.0500	1.174167540E-01	-3.468201950E-02	2.176038102E+02	-1.612771437E+02
12.1000	1.268684496E-01	-3.232368646E-02	2.100066310E+02	-1.657401161E+02
12.1500	1.357253714E-01	-2.918971600E-02	2.023993605E+02	-1.693437791E+02
12.2000	1.440847125E-01	-2.535766530E-02	1.946572536E+02	-1.721071579E+02
12.2500	1.520386660E-01	-2.081053673E-02	1.8622312840E+02	-1.740298793E+02
12.3000	1.596764969E-01	-1.551433620E-02	1.762845428E+02	-1.753440155E+02
12.3500	1.670865929E-01	-9.432256364E-03	1.717683351E+02	-1.759216034E+02
12.4000	1.743585542E-01	-2.522019178E-03	1.644237724E+02	-1.768727869E+02
12.4500	1.815855261E-01	5.250695652E-03	1.572235046E+02	-1.752443306E+02
12.5000	1.888667478E-01	1.396774675E-02	1.503733257E+02	-1.740820164E+02
12.5500	1.963099720E-01	2.365802527E-02	1.437135967E+02	-1.724241528E+02
12.6000	2.040335351E-01	3.432718149E-02	1.3732065014E+02	-1.702081515E+02
12.6500	2.121789414E-01	4.625261522E-02	1.312070930E+02	-1.677666706E+02
12.7000	2.209975428E-01	5.930107699E-02	1.253843921E+02	-1.649280539E+02
12.7500	2.303743481E-01	7.262316734E-02	1.198615101E+02	-1.615213100E+02
12.8000	2.408258761E-01	8.930234734E-02	1.146470543E+02	-1.578460811E+02
12.8500	2.525104093E-01	1.064236220E-01	1.097524061E+02	-1.528839912E+02
12.9000	2.657382122E-01	1.250581564E-01	1.051842248E+02	-1.469332027E+02
12.9500	2.808837716E-01	1.452747253E-01	1.009527002E+02	-1.450101479E+02
13.0000	2.984001198E-01	1.671065949E-01	9.707273245E+01	-1.401498792E+02
13.0500	3.186349910E-01	1.905414759E-01	9.355266964E+01	-1.35266009E+02
13.1000	3.422847721E-01	2.154899445E-01	9.041258050E+01	-1.286542117E+02
13.1500	3.712247768E-01	2.417420310E-01	8.765454047E+01	-1.240467409E+02
13.2000	4.049885414E-01	2.689053623E-01	8.523522407E+01	-1.192191623E+02
13.2500	4.448911220E-01	2.963196754E-01	8.344091585E+01	-1.121879808E+02
13.3000	4.923773072E-01	3.229441813E-01	8.200702078E+01	-1.059719687E+02
13.3500	5.484930233E-01	3.472203258E-01	8.106258787E+01	-9.950304084E+01
13.4000	6.142059280E-01	3.669268607E-01	8.063703798E+01	-9.307715722E+01
13.4500	6.900012234E-01	3.790720425E-01	8.075928061E+01	-8.645531640E+01
13.5000	7.754318437E-01	3.799108077E-01	8.146250034E+01	-7.976459156E+01
13.5500	8.685417004E-01	3.652208212E-01	8.277917420E+01	-7.304920661E+01
13.6000	9.654600529E-01	3.309777777E-01	8.474086412E+01	-6.636157998E+01
13.6500	1.060059216E+00	2.744608962E-01	8.737563910E+01	-5.975326902E+01
13.7000	1.144748082E+00	1.955419151E-01	9.071109236E+01	-5.322571117E+01
13.7500	1.211849754E+00	9.756987862E-02	9.476198006E+01	-4.712064392E+01
13.8000	1.255586374E+00	-1.281062146E-02	9.953684592E+01	-4.126996811E+01
13.8500	1.273636293E+00	-1.270952230E-01	1.050313155E+02	-3.586502075E+01
13.9000	1.267484809E+00	-2.370120417E-01	1.112237504E+02	-3.096484241E+01
13.9500	1.241425065E+00	-3.362727440E-01	1.180734482E+02	-2.674248605E+01
14.0000	1.201350274E+00	-4.21333221E-01	1.255171286E+02	-2.329609967E+01

$$\Omega = 2 \ln(2h/a) = 10$$

$k_0 h$	$\text{Re} \left\{ I_a(k_0 h) / hE^{\text{inc}} \right\}$	$\text{Im} \left\{ I_a(k_0 h) / hE^{\text{inc}} \right\}$	$\text{Re} \left\{ Z_a(k_0 h) \right\}$	$\text{Im} \left\{ Z_a(k_0 h) \right\}$
14.0500	1.152627405E+00	-4.911686946E-01	1.324660215E+02	-2.073286230E+01
14.1000	1.299952728E+00	-5.465452356E-01	1.418098250E+02	-1.915739201E+01
14.1500	1.046710195E+00	-5.892100603E-01	1.504071098E+02	-1.865240702E+01
14.2000	9.951234556E-01	-6.212665311E-01	1.591001628E+02	-1.927202293E+01
14.2500	9.464952512E-01	-6.447852745E-01	1.677127755E+02	-2.106524345E+01
14.3000	9.014736231E-01	-6.616090336E-01	1.760597751E+02	-2.400062576E+01
14.3500	8.602629909E-01	-6.732841340E-01	1.839555526E+02	-2.804012963E+01
14.4000	8.228327035E-01	-6.810617612E-01	1.912236756E+02	-3.316395660E+01
14.4500	7.889527038E-01	-6.859212038E-01	1.977063116E+02	-3.917069466E+01
14.5000	7.582744434E-01	-6.885634252E-01	2.032724318E+02	-4.592290611E+01
14.5500	7.307725595E-01	-6.893539711E-01	2.078228988E+02	-5.337259733E+01
14.6000	7.059493322E-01	-6.892606507E-01	2.112988560E+02	-6.122021406E+01
14.6500	6.833147631E-01	-6.883347003E-01	2.136722387E+02	-6.921856768E+01
14.7000	6.629002723E-01	-6.868245651E-01	2.149536170E+02	-7.750001103E+01
14.7500	6.443649859E-01	-6.869007946E-01	2.151820113E+02	-8.560459038E+01
14.8000	6.274997760E-01	-6.854822047E-01	2.144346954E+02	-9.324084544E+01
14.8500	6.120770387E-01	-6.840482835E-01	2.127618510E+02	-1.010291719E+02
14.9000	5.970595996E-01	-6.827625758E-01	2.102292426E+02	-1.081621185E+02
14.9500	5.849900181E-01	-6.816905258E-01	2.071070496E+02	-1.147590624E+02
15.0000	5.730021810E-01	-6.808646447E-01	2.039302486E+02	-1.200046490E+02
15.0500	5.619034732E-01	-6.802664924E-01	1.999262487E+02	-1.242564213E+02
15.1000	5.515734730E-01	-6.802227517E-01	1.962201547E+02	-1.270970206E+02
15.1500	5.419110241E-01	-6.804026304E-01	1.929992120E+02	-1.285222641E+02
15.2000	5.338269120E-01	-6.811997447E-01	1.894122681E+02	-1.289392210E+02
15.2500	5.242230083E-01	-6.823367180E-01	1.855588720E+02	-1.419591405E+02
15.3000	5.160497217E-01	-6.840153888E-01	1.829936985E+02	-1.444040401E+02
15.3500	5.081990147E-01	-6.862002902E-01	1.673668111E+02	-1.462065029E+02
15.4000	5.006081459E-01	-6.889634535E-01	1.617255361E+02	-1.474615605E+02
15.4500	4.931991030E-01	-6.893155909E-01	1.561094779E+02	-1.485253956E+02
15.5000	4.859062400E-01	-6.883010004E-01	1.505519507E+02	-1.492140134E+02
15.5500	4.786126507E-01	-7.009585556E-01	1.450316555E+02	-1.498520295E+02
15.6000	4.713239103E-01	-7.063298006E-01	1.397290260E+02	-1.493662464E+02
15.6500	4.642065402E-01	-7.124597220E-01	1.344070405E+02	-1.477682915E+02
15.7000	4.560540002E-01	-7.100055376E-01	1.294201050E+02	-1.462053533E+02
15.7500	4.479434318E-01	-7.071974412E-01	1.245147009E+02	-1.448727201E+02
15.8000	4.398200328E-01	-7.052572916E-01	1.197994920E+02	-1.429505102E+02
15.8500	4.306619871E-01	-7.055472844E-01	1.152604911E+02	-1.402294616E+02
15.9000	4.196600267E-01	-7.068178252E-01	1.108412061E+02	-1.376702950E+02
15.9500	4.088171341E-01	-7.079439204E-01	1.068461125E+02	-1.347511852E+02
16.0000	3.963226762E-01	-7.074391860E-01	1.029960230E+02	-1.310446049E+02
16.0500	3.823638275E-01	-7.043918607E-01	9.937947005E+01	-1.280626372E+02
16.1000	3.664126707E-01	-7.006062807E-01	9.602733414E+01	-1.243164551E+02
16.1500	3.491126282E-01	-6.957425222E-01	9.292111960E+01	-1.202175791E+02
16.2000	3.270010665E-01	-6.926925200E-01	9.022613445E+01	-1.160778474E+02
16.2500	3.025051060E-01	-6.902149658E-01	8.770202410E+01	-1.116099770E+02
16.3000	2.740051687E-01	-6.782435767E-01	8.570276486E+01	-1.069220014E+02
16.3500	2.408205061E-01	-6.650035260E-01	8.397882426E+01	-1.020493092E+02
16.4000	2.022559764E-01	-6.512446000E-01	8.264613625E+01	-9.699398482E+01
16.4500	1.576760137E-01	-6.367601420E-01	8.173077151E+01	-9.173244435E+01
16.5000	1.066318458E-01	-6.272263267E-01	8.106900359E+01	-8.642662527E+01
16.5500	4.905024744E-02	-6.418776514E-01	8.125244815E+01	-8.098006091E+01
16.6000	-1.451671496E-02	-6.362673331E-01	8.176541070E+01	-7.547046051E+01
16.6500	-8.251751874E-02	-6.241016583E-01	8.273582777E+01	-6.994092439E+01
16.7000	-1.526911757E-01	-6.070550251E-01	8.437850720E+01	-6.444165814E+01
16.7500	-2.210624013E-01	-6.556907934E-01	8.653283663E+01	-5.903024911E+01
16.8000	-2.822845290E-01	-7.096776922E-01	8.927694975E+01	-5.377199208E+01

$$\Omega = 2 \ln(2h/a) = 10$$

$k_0 h$	$\text{Re} \left\{ I_a(k_0 h)/hE^{1nc} \right\}$	$\text{Im} \left\{ I_a(k_0 h)/hE^{1nc} \right\}$	$\text{Re} \left\{ Z_a(k_0 h) \right\}$	$\text{Im} \left\{ Z_a(k_0 h) \right\}$
16.8500	-3.349675155E-01	-7.311471341E-01	0.261516092E+01	-4.872961092E+01
16.9000	-3.722187105E-01	-6.535806769E-01	9.654561825E+01	-4.401253212E+01
16.9500	-3.924426305E-01	-5.717198064E-01	1.010539230E+02	-3.967556246E+01
17.0000	-3.986623750E-01	-4.905006564E-01	1.061102188E+02	-3.581675355E+01
17.0500	-3.897410368E-01	-4.141204147E-01	1.116697210E+02	-3.252462933E+01
17.1000	-3.696270056E-01	-3.454680523E-01	1.175660664E+02	-2.988432624E+01
17.1500	-3.416072545E-01	-2.860126811E-01	1.240207277E+02	-2.797446740E+01
17.2000	-3.087365614E-01	-2.360311922E-01	1.306339699E+02	-2.686111016E+01
17.2500	-2.735239493E-01	-1.949910981E-01	1.373917492E+02	-2.652422254E+01
17.3000	-2.378418951E-01	-1.619646465E-01	1.441682477E+02	-2.720342763E+01
17.3500	-2.020746543E-01	-1.355079512E-01	1.508304682E+02	-2.860458572E+01
17.4000	-1.687235593E-01	-1.147405009E-01	1.572425900E+02	-3.104224533E+01
17.4500	-1.385536403E-01	-9.849402040E-02	1.632785578E+02	-3.421223207E+01
17.5000	-1.129650996E-01	-8.584294749E-02	1.689151167E+02	-3.813929210E+01
17.5500	-8.925744199E-02	-7.601235698E-02	1.737501950E+02	-4.271519249E+01
17.6000	-6.870749193E-02	-6.836748023E-02	1.779006174E+02	-4.784340234E+01
17.6500	-5.147653918E-02	-6.239577490E-02	1.815761090E+02	-5.340547224E+01
17.7000	-3.720067892E-02	-5.769705011E-02	1.847303292E+02	-5.927222714E+01
17.7500	2.259761128E-03	-5.301467317E-02	1.861403095E+02	-6.534122685E+01
17.8000	1.002890220E-02	-5.021211029E-02	1.857304510E+02	-7.147616198E+01
17.8500	3.446815604E-02	-4.810411034E-02	1.836899162E+02	-7.757577911E+01
17.9000	4.851873430E-02	-4.587522450E-02	1.803584207E+02	-8.354461947E+01
17.9500	6.130005278E-02	-4.373121803E-02	1.853621206E+02	-8.930081856E+01
18.0000	7.220297078E-02	-4.165584107E-02	1.847646644E+02	-9.477674582E+01
18.0500	8.009510521E-02	-3.956304927E-02	1.826273537E+02	-9.991866736E+01
18.1000	8.415163199E-02	-3.738196572E-02	1.800189130E+02	-1.046866404E+02
18.1500	1.034764252E-01	-3.505339710E-02	1.770021850E+02	-1.090514392E+02
18.2000	1.121581994E-01	-3.252698673E-02	1.736433940E+02	-1.129947276E+02
18.2500	1.202787006E-01	-2.975896226E-02	1.699996618E+02	-1.165068627E+02
18.3000	1.279139152E-01	-2.671032902E-02	1.661724759E+02	-1.196840406E+02
18.3500	1.351352714E-01	-2.345426102E-02	1.620675273E+02	-1.222316426E+02



$$\Omega = 2 \ln(2h/a) = 15$$

$k_0 h$	$\text{Re} \{ I_a(k_0 h)/hE_{inc} \}$	$\text{Im} \{ I_a(k_0 h)/hE_{inc} \}$	$\text{Re} \{ Z_a(k_0 h) \}$	$\text{Im} \{ Z_a(k_0 h) \}$
.0500	3.361839560E-07	6.998499266E-02	4.561668626E-02	-1.364942998E+04
.1000	5.414738351E-06	1.404649258E-01	1.819274676E-01	-6.789420518E+03
.1500	2.771885558E-05	2.119457521E-01	4.095111105E-01	-4.502733931E+03
.2000	8.898885505E-05	2.849560942E-01	7.201353103E-01	-3.354912021E+03
.2500	2.217195265E-04	3.600597846E-01	1.145777885E+00	-2.661894807E+03
.3000	4.714562323E-04	4.378702617E-01	1.659151955E+00	-2.196010250E+03
.3500	9.001251689E-04	5.190673674E-01	2.273632252E+00	-1.850812072E+03
.4000	1.599754050E-03	6.044176525E-01	2.993332252E+00	-1.604578161E+03
.4500	2.654118520E-03	6.947994738E-01	3.823086118E+00	-1.402245448E+03
.5000	4.238118600E-03	7.912346522E-01	4.768581512E+00	-1.239575412E+03
.5500	6.541104673E-03	8.949292342E-01	5.836399830E+00	-1.108232422E+03
.6000	9.531227675E-03	1.007326605E+00	7.034112556E+00	-9.973149890E+02
.6500	1.447234503E-02	1.130173200E+00	8.270385243E+00	-8.870414476E+02
.7000	2.097235843E-02	1.265439305E+00	9.655110639E+00	-7.989886105E+02
.7500	2.903251169E-02	1.416300701E+00	1.140053285E+01	-7.206389003E+02
.8000	4.266010906E-02	1.585866776E+00	1.341646551E+01	-6.500061618E+02
.8500	6.030430724E-02	1.778426432E+00	1.562043060E+01	-5.850030330E+02
.9000	8.511485521E-02	1.999203502E+00	1.752705724E+01	-5.350174520E+02
.9500	1.200497563E-01	2.257704712E+00	1.905782805E+01	-4.722025475E+02
1.0000	1.710021025E-01	2.562493330E+00	2.243147228E+01	-4.311012283E+02
1.0500	2.455498487E-01	2.928654862E+00	2.557226710E+01	-3.729260895E+02
1.1000	3.574964054E-01	3.376726642E+00	2.991111697E+01	-3.272001836E+02
1.1500	5.011741989E-01	3.936520113E+00	3.276976200E+01	-2.834916206E+02
1.2000	6.811677023E-01	4.651725102E+00	3.620754992E+01	-2.414219380E+02
1.2500	9.088532084E+00	5.585646858E+00	4.064512459E+01	-2.006982169E+02
1.3000	2.152820174E+00	6.819929379E+00	4.542957941E+01	-1.610035822E+02
1.3500	3.839182436E+00	8.397269967E+00	5.074461466E+01	-1.220889424E+02
1.4000	7.312048021E+00	9.233403215E+00	5.652225788E+01	-8.371564249E+01
1.4500	1.267685490E+01	9.922284069E+00	6.216971750E+01	-4.566088262E+01
1.5000	1.839506736E+01	1.079227730E+00	7.045609346E+01	-7.710491803E+00
1.5500	1.448210905E+01	-6.556074445E+00	7.959580632E+01	3.033021951E+01
1.6000	9.214488819E+00	-8.213010912E+00	8.771470977E+01	6.869264760E+01
1.6500	6.017071202E+00	-7.635970593E+00	9.706493467E+01	1.075543316E+02
1.7000	4.218812536E+00	-6.720377498E+00	1.025272053E+02	1.471324760E+02
1.7500	3.152544065E+00	-5.918754091E+00	1.226219902E+02	1.876415839E+02
1.8000	2.476670632E+00	-5.257187730E+00	1.375128642E+02	2.293046533E+02
1.8500	2.022334049E+00	-4.724699711E+00	1.545244817E+02	2.723547207E+02
1.9000	1.701782950E+00	-4.293238703E+00	1.740553122E+02	3.170353431E+02
1.9500	1.465524804E+00	-3.939302812E+00	1.965986706E+02	3.635992040E+02
2.0000	1.288187828E+00	-3.645112486E+00	2.227496107E+02	4.123043264E+02
2.0500	1.140324506E+00	-3.397481874E+00	2.503402684E+02	4.624037491E+02
2.1000	1.023873645E+00	-3.186656809E+00	2.802287136E+02	5.171287413E+02
2.1500	9.489676353E-01	-3.005340161E+00	3.218516392E+02	5.736530242E+02
2.2000	8.748943509E-01	-2.849002528E+00	3.626214450E+02	6.330536130E+02
2.2500	8.128978267E-01	-2.710393078E+00	4.036225825E+02	6.951922579E+02
2.3000	7.503602891E-01	-2.589227430E+00	4.436225825E+02	7.595265133E+02
2.3500	7.153477800E-01	-2.481887700E+00	4.85231291E+02	8.249716155E+02
2.4000	6.754046237E-01	-2.386302240E+00	5.179065585E+02	8.892545210E+02
2.4500	6.424167453E-01	-2.300824913E+00	5.536260590E+02	9.483391070E+02
2.5000	6.125186460E-01	-2.224002472E+00	5.920251064E+03	9.952520753E+02
2.5500	5.860287533E-01	-2.154973711E+00	1.222830541E+03	1.018544250E+03
2.6000	5.624026246E-01	-2.092585040E+00	1.463298979E+03	1.000605342E+03
2.6500	5.412050042E-01	-2.036158566E+00	1.705229549E+03	9.171270674E+02
2.7000	5.220755652E-01	-1.985062518E+00	2.016609005E+03	7.408739546E+02
2.7500	5.047210589E-01	-1.939768405E+00	2.262645685E+03	4.541578874E+02
2.8000	4.888967325E-01	-1.896932261E+00	2.413056405E+03	6.929524091E+01

$$\Omega = 2 \ln(2h/a) = 15$$

$k_0 h$	$\text{Re} \left\{ I_a(k_0 h) / hE^{inc} \right\}$	$\text{Im} \left\{ I_a(k_0 h) / hE^{inc} \right\}$	$\text{Re} \left\{ Z_a(k_0 h) \right\}$	$\text{Im} \left\{ Z_a(k_0 h) \right\}$
2.8500	4.743269965E-01	-1.858885754E+00	2.419168418E+03	-2.591417569E+02
2.9000	4.610474100E-01	-1.824615210E+00	2.277075904E+03	-7.529575044E+02
2.9500	4.486983746E-01	-1.792763577E+00	2.031072483E+03	-1.051706274E+03
3.0000	4.372200240E-01	-1.766117770E+00	1.743027160E+03	-1.237161183E+03
3.0500	4.264984610E-01	-1.741505595E+00	1.461484517E+03	-1.324766695E+03
3.1000	4.164316294E-01	-1.719791212E+00	1.211811562E+03	-1.342446450E+03
3.1500	4.069270597E-01	-1.700871077E+00	1.002130614E+03	-1.316157461E+03
3.2000	3.98923887E-01	-1.684691109E+00	8.305329211E+02	-1.264972008E+03
3.2500	3.892654674E-01	-1.671176920E+00	6.917275722E+02	-1.201311007E+03
3.3000	3.809469406E-01	-1.660353203E+00	5.798381543E+02	-1.132695850E+03
3.3500	3.728627219E-01	-1.652234871E+00	4.894366074E+02	-1.063440185E+03
3.4000	3.649297208E-01	-1.646980966E+00	4.160506421E+02	-9.958919105E+02
3.4500	3.570540234E-01	-1.644287843E+00	3.561234227E+02	-9.311850496E+02
3.5000	3.491371034E-01	-1.644893270E+00	3.068791700E+02	-8.693341190E+02
3.5500	3.410600228E-01	-1.648592736E+00	2.631676842E+02	-8.110306917E+02
3.6000	3.326050229E-01	-1.655607325E+00	2.232252202E+02	-7.573632450E+02
3.6500	3.238206011E-01	-1.666544350E+00	1.840614296E+02	-7.059241080E+02
3.7000	3.143106578E-01	-1.681511224E+00	1.493371307E+02	-6.572680248E+02
3.7500	3.039244120E-01	-1.701084052E+00	1.204692100E+02	-6.110665621E+02
3.8000	2.928220060E-01	-1.725271109E+00	1.037334171E+02	-5.677434247E+02
3.8500	2.794293535E-01	-1.756635122E+00	1.006770441E+02	-5.261597256E+02
3.9000	2.623051049E-01	-1.794324221E+00	1.170142040E+02	-4.862971747E+02
3.9500	2.430221415E-01	-1.840190039E+00	1.031328563E+02	-4.482340632E+02
4.0000	2.199306786E-01	-1.895703543E+00	1.000926189E+02	-4.114691702E+02
4.0500	1.886118122E-01	-1.962352549E+00	9.359682696E+01	-3.759086195E+02
4.1000	1.492232759E-01	-2.044099870E+00	8.549467402E+01	-3.413831821E+02
4.1500	9.615742146E-02	-2.142552920E+00	8.466893063E+01	-3.077321196E+02
4.2000	2.860641709E-02	-2.262025205E+00	8.203173211E+01	-2.748072026E+02
4.2500	-7.887513772E-02	-2.406961659E+00	8.052055858E+01	-2.424705078E+02
4.3000	-2.280757220E-01	-2.581041953E+00	8.009552551E+01	-2.105919362E+02
4.3500	-4.510284720E-01	-2.785092441E+00	8.037339890E+01	-1.790489800E+02
4.4000	-7.063235322E-01	-3.006946552E+00	8.044642302E+01	-1.477245563E+02
4.4500	-1.329726872E+00	-3.196377732E+00	8.034235302E+01	-1.165065581E+02
4.5000	-2.112411516E+00	-3.211389576E+00	8.016302054E+01	-8.528676450E+01
4.5500	-3.089750081E+00	-2.771435990E+00	8.427040228E+01	-5.306027874E+01
4.6000	-3.796461804E+00	-1.681348907E+00	1.006433058E+02	-2.242519407E+01
4.6500	-3.718241735E+00	-2.616350210E-01	1.002878573E+02	9.417397236E+00
4.7000	-3.045158285E+00	5.270087411E-01	1.176370407E+02	4.166286871E+01
4.7500	-2.294953779E+00	8.025584423E-01	1.395552192E+02	7.440204118E+01
4.8000	-1.698669077E+00	9.581004573E-01	1.413433715E+02	1.077190876E+02
4.8500	-1.269620040E+00	8.886295507E-01	1.562455068E+02	1.416883588E+02
4.9000	-9.661114304E-01	7.088469727E-01	1.725565052E+02	1.763694140E+02
4.9500	-7.486834228E-01	6.033673909E-01	1.926316039E+02	2.117995988E+02
5.0000	-5.995248386E-01	5.042251146E-01	2.168976376E+02	2.479831256E+02
5.0500	-4.702849481E-01	5.072316849E-01	2.438660237E+02	2.848751866E+02
5.1000	-3.780656631E-01	4.702332545E-01	2.751471527E+02	3.223590405E+02
5.1500	-3.076250917E-01	3.648327976E-01	3.114652164E+02	3.602132294E+02
5.2000	-2.509004913E-01	2.077922950E-01	3.526712122E+02	3.980651083E+02
5.2500	-2.050916234E-01	2.585576277E-01	4.027506265E+02	4.353258140E+02
5.3000	-1.675490150E-01	2.160213740E-01	4.598159076E+02	4.711009326E+02
5.3500	-1.365148930E-01	1.792187927E-01	5.260734503E+02	5.040713890E+02
5.4000	-1.104919776E-01	1.473390220E-01	6.027394708E+02	5.323421264E+02
5.4500	-8.849223968E-02	1.197041200E-01	6.908720733E+02	5.532656748E+02
5.5000	-6.973667529E-02	9.575003660E-02	7.910717973E+02	5.632695552E+02
5.5500	-5.362497557E-02	7.500698506E-02	9.029981465E+02	5.577535307E+02
5.6000	-3.968942611E-02	5.708346314E-02	1.024679967E+03	5.312202811E+02

$$\Omega = 2 \ln(2h/a) = 15$$

$k_0 h$	$\text{Re} \{ I_a(k_0 h)/hE^{inc} \}$	$\text{Im} \{ I_a(k_0 h)/hE^{inc} \}$	$\text{Re} \{ Z_a(k_0 h) \}$	$\text{Im} \{ Z_a(k_0 h) \}$
5.5500	-2.756049881E-02	4.155284917E-02	1.151671539E+03	4.778105610E+02
5.7000	-1.524291214E-02	2.844215235E-02	1.276342111E+03	3.924602487E+02
5.7500	-7.598105527E-03	1.722307775E-02	1.387914909E+03	2.728755359E+02
5.8000	6.687074490E-04	7.804697326E-03	1.473248915E+03	1.216748917E+02
5.8500	8.018208087E-03	2.769382246E-05	1.520745642E+03	-5.225646924E+01
5.9000	1.458431651E-02	-6.240245329E-03	1.523072234E+03	-2.346466461E+02
5.9500	2.047983077E-02	-1.110864427E-02	1.480310413E+03	-4.090622086E+02
6.0000	2.580082353E-02	-1.466618975E-02	1.399751539E+03	-5.613968441E+02
6.0500	3.063012273E-02	-1.698404145E-02	1.293150285E+03	-6.829900997E+02
6.1000	3.504011700E-02	-1.811710400E-02	1.173054669E+03	-7.713036235E+02
6.1500	3.902506616E-02	-1.810543725E-02	1.050040921E+03	-8.285354538E+02
6.2000	4.285325559E-02	-1.697515955E-02	9.215406032E+02	-8.594950853E+02
6.2500	4.636770592E-02	-1.473897939E-02	9.219293682E+02	-8.697837092E+02
6.3000	4.968972959E-02	-1.139637596E-02	7.232194678E+02	-8.646649520E+02
6.3500	5.286642115E-02	-6.932431423E-03	6.358537069E+02	-8.485553402E+02
6.4000	5.595315022E-02	-1.322304035E-03	5.893601823E+02	-8.249125709E+02
6.4500	5.900500820E-02	5.472688926E-03	4.928098453E+02	-7.963225463E+02
6.5000	6.204851788E-02	1.253141641E-02	4.381025482E+02	-7.646576269E+02
6.5500	6.517384212E-02	2.290979698E-02	3.851289961E+02	-7.312399890E+02
6.6000	6.843232429E-02	3.271224284E-02	3.418590439E+02	-6.962828844E+02
6.6500	7.182483080E-02	4.405084302E-02	3.043674963E+02	-6.625027201E+02
6.7000	7.572521724E-02	6.010143461E-02	2.718533568E+02	-6.282038056E+02
6.7500	7.995259431E-02	7.601878628E-02	2.436303970E+02	-5.943406017E+02
6.8000	8.477124788E-02	9.403316294E-02	2.191174694E+02	-5.610626263E+02
6.8500	9.034871276E-02	1.144136585E-01	1.978257329E+02	-5.284464785E+02
6.9000	9.693006229E-02	1.374876391E-01	1.793460035E+02	-4.965185002E+02
6.9500	1.048316480E-01	1.636538035E-01	1.633368693E+02	-4.652707264E+02
7.0000	1.144750169E-01	1.923984169E-01	1.495146537E+02	-4.346720615E+02
7.0500	1.254322285E-01	2.273147515E-01	1.376446022E+02	-4.046760753E+02
7.1000	1.414921583E-01	2.661254162E-01	1.275236226E+02	-3.752264156E+02
7.1500	1.607660740E-01	3.107951734E-01	1.190243625E+02	-3.462605420E+02
7.2000	1.858355237E-01	3.620072487E-01	1.11922708E+02	-3.177122835E+02
7.2500	2.190075057E-01	4.215061310E-01	1.063318410E+02	-2.895135776E+02
7.3000	2.636983625E-01	4.902217347E-01	1.019735528E+02	-2.615953446E+02
7.3500	3.250479178E-01	5.692762716E-01	9.866140104E+01	-2.339079635E+02
7.4000	4.108619397E-01	6.592912858E-01	9.686236105E+01	-2.062270451E+02
7.4500	5.320333252E-01	7.572712846E-01	9.626083547E+01	-1.789431329E+02
7.5000	7.082778981E-01	8.568796403E-01	9.676112636E+01	-1.513698200E+02
7.5500	9.592270883E-01	9.340971750E-01	9.848540055E+01	-1.238443603E+02
7.6000	1.301127669E+00	9.402456853E-01	1.014748501E+02	-9.620552253E+01
7.6500	1.712987122E+00	7.012081107E-01	1.057005972E+02	-6.820528860E+01
7.7000	2.081122097E+00	4.151162742E-01	1.115148229E+02	-4.035085692E+01
7.7500	2.227217830E+00	-1.345016662E-01	1.187533808E+02	-1.205115452E+01
7.8000	2.089455933E+00	-6.538143005E-01	1.276276044E+02	1.657100384E+01
7.8500	1.790014936E+00	-9.931739520E-01	1.383277781E+02	4.563600770E+01
7.9000	1.472614137E+00	-1.154459826E+00	1.510166672E+02	7.485826054E+01
7.9500	1.203874558E+00	-1.202559982E+00	1.659336997E+02	1.045321371E+02
8.0000	9.946475491E-01	-1.192676000E+00	1.833405604E+02	1.345232821E+02
8.0500	8.358266335E-01	-1.157171566E+00	2.035909642E+02	1.647593971E+02
8.1000	7.152565340E-01	-1.112493924E+00	2.269951520E+02	1.951158536E+02
8.1500	6.227340750E-01	-1.066424526E+00	2.540132826E+02	2.253972737E+02
8.2000	5.506801762E-01	-1.022409660E+00	2.851113524E+02	2.563137845E+02
8.2500	4.936797589E-01	-9.818048478E-01	3.208163738E+02	2.844486409E+02
8.3000	4.478939652E-01	-9.442809901E-01	3.616943418E+02	3.122195838E+02
8.3500	4.105864322E-01	-9.118623267E-01	4.083246939E+02	3.378302238E+02
8.4000	3.797845082E-01	-8.821856355E-01	4.612537027E+02	3.602135313E+02

$$\Omega = 2 \ln(2h/a) = 15$$

$k_0 h$	$\text{Re} \{I_a(k_0 h) h E^{inc}\}$	$\text{Im} \{I_a(k_0 h) / h E^{inc}\}$	$\text{Re} \{Z_a(k_0 h)\}$	$\text{Im} \{Z_a(k_0 h)\}$
8.4500	3.540455108E-01	-8.556299095E-01	5.209175415E+02	3.779799558E+02
8.5000	3.323035748E-01	-8.318646121E-01	5.875216010E+02	3.80345528E+02
8.5500	3.137519447E-01	-8.105852802E-01	6.608690146E+02	3.921604059E+02
8.6000	2.977784163E-01	-7.915181541E-01	7.401330006E+02	3.839050361E+02
8.6500	2.839098340E-01	-7.744231512E-01	8.235029147E+02	3.618830098E+02
8.7000	2.717758137E-01	-7.590023490E-01	9.083891699E+02	3.235294701E+02
8.7500	2.610833996E-01	-7.453470517E-01	9.903949000E+02	2.669763358E+02
8.8000	2.515981389E-01	-7.330344853E-01	1.064371052E+03	1.916282257E+02
8.8500	2.431305211E-01	-7.220245704E-01	1.124500126E+03	9.890186549E+01
8.9000	2.355257283E-01	-7.122070136E-01	1.165343324E+03	-7.461899003E+00
8.9500	2.226550849E-01	-7.034887763E-01	1.182990509E+03	-1.216027570E+02
9.0000	2.224146949E-01	-6.957019127E-01	1.176003536E+03	-2.364134959E+02
9.0500	2.167121764E-01	-6.890518275E-01	1.145746647E+03	-2.44837498E+02
9.1000	2.114719275E-01	-6.832157336E-01	1.095860170E+03	-4.411209101E+02
9.1500	2.066281550E-01	-6.782415930E-01	1.021791991E+03	-5.215818212E+02
9.2000	2.021230855E-01	-6.740070768E-01	9.587024204E+02	-5.847411175E+02
9.2500	1.979056068E-01	-6.707590541E-01	8.916101964E+02	-6.309461116E+02
9.3000	1.939294319E-01	-6.682130126E-01	8.044128417E+02	-6.617632059E+02
9.3500	1.901520539E-01	-6.664528670E-01	7.298805307E+02	-6.702907964E+02
9.4000	1.865330300E-01	-6.654909981E-01	6.597628560E+02	-6.861487063E+02
9.4500	1.830333286E-01	-6.653079029E-01	5.950027758E+02	-6.842910142E+02
9.5000	1.796130264E-01	-6.659535525E-01	5.252674806E+02	-6.757567585E+02
9.5500	1.762346901E-01	-6.674469771E-01	4.826246637E+02	-6.621712090E+02
9.6000	1.729529501E-01	-6.699275996E-01	4.347321792E+02	-6.448427254E+02
9.6500	1.698220442E-01	-6.731462606E-01	3.610103102E+02	-6.247981269E+02
9.7000	1.658999079E-01	-6.774666706E-01	3.527221590E+02	-6.029275245E+02
9.7500	1.621942023E-01	-6.828673149E-01	3.197294977E+02	-5.795296710E+02
9.8000	1.582644289E-01	-6.894437059E-01	2.895044090E+02	-5.553509011E+02
9.8500	1.540129263E-01	-6.973112946E-01	2.626545466E+02	-5.306197707E+02
9.9000	1.493322181E-01	-7.066095397E-01	2.388245932E+02	-5.055737450E+02
9.9500	1.442874587E-01	-7.175052601E-01	2.176955817E+02	-4.803806974E+02
10.0000	1.381967494E-01	-7.301995376E-01	1.990020054E+02	-4.551557019E+02
10.0500	1.311676340E-01	-7.440226752E-01	1.824955000E+02	-4.299738298E+02
10.1000	1.229780241E-01	-7.619922017E-01	1.679712946E+02	-4.049900277E+02
10.1500	1.131497234E-01	-7.817236304E-01	1.552557116E+02	-3.799264952E+02
10.2000	1.011532625E-01	-8.045326325E-01	1.442911960E+02	-3.550284046E+02
10.2500	8.627212221E-02	-8.308266350E-01	1.346856210E+02	-3.302682513E+02
10.3000	6.750017197E-02	-8.612596321E-01	1.266024442E+02	-3.055990351E+02
10.3500	4.342157003E-02	-9.065112971E-01	1.198938452E+02	-2.8099269194E+02
10.4000	1.201205639E-02	-9.369212975E-01	1.144791469E+02	-2.564326579E+02
10.4500	-2.964994033E-02	-9.829769153E-01	1.103226132E+02	-2.318741466E+02
10.5000	-8.570215801E-02	-1.034512662E+00	1.074026126E+02	-2.072866879E+02
10.5500	-1.624529890E-01	-1.090010902E+00	1.057081323E+02	-1.826346041E+02
10.6000	-2.679258378E-01	-1.149450965E+00	1.052486378E+02	-1.578821796E+02
10.6500	-4.121948486E-01	-1.188670724E+00	1.060492664E+02	-1.329947310E+02
10.7000	-6.233276622E-01	-1.190620712E+00	1.081522549E+02	-1.079397894E+02
10.7500	-8.362571570E-01	-1.141072264E+00	1.116182990E+02	-8.269340996E+01
10.8000	-1.073123166E+00	-9.757404731E-01	1.165267324E+02	-5.721735151E+01
10.8500	-1.227054149E+00	-6.954272742E-01	1.229780392E+02	-3.151037207E+01
10.9000	-1.260236132E+00	-3.564075294E-01	1.310951352E+02	-5.561060171E+00
10.9500	-1.150490962E+00	-9.512062612E-02	1.410255192E+02	2.061042911E+01
11.0000	-9.746708073E-01	9.324652455E-02	1.529402453E+02	4.700655374E+01
11.0500	-7.937124775E-01	1.052455347E-01	1.670521406E+02	7.354707692E+01
11.1000	-6.264432232E-01	2.226357260E-01	1.835856621E+02	1.001556470E+02
11.1500	-5.091909630E-01	2.366923732E-01	2.028100700E+02	1.267035566E+02
11.2000	-4.089324059E-01	2.239341471E-01	2.250222594E+02	1.530056986E+02

$$\Omega = 2 \ln(2h/a) = 15$$

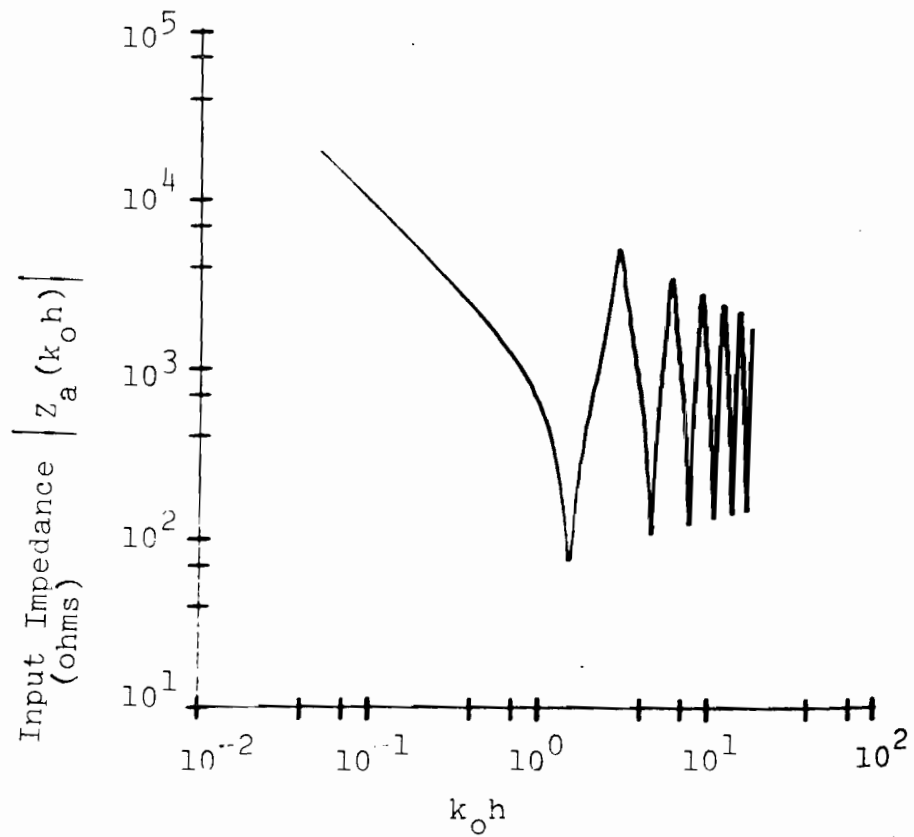
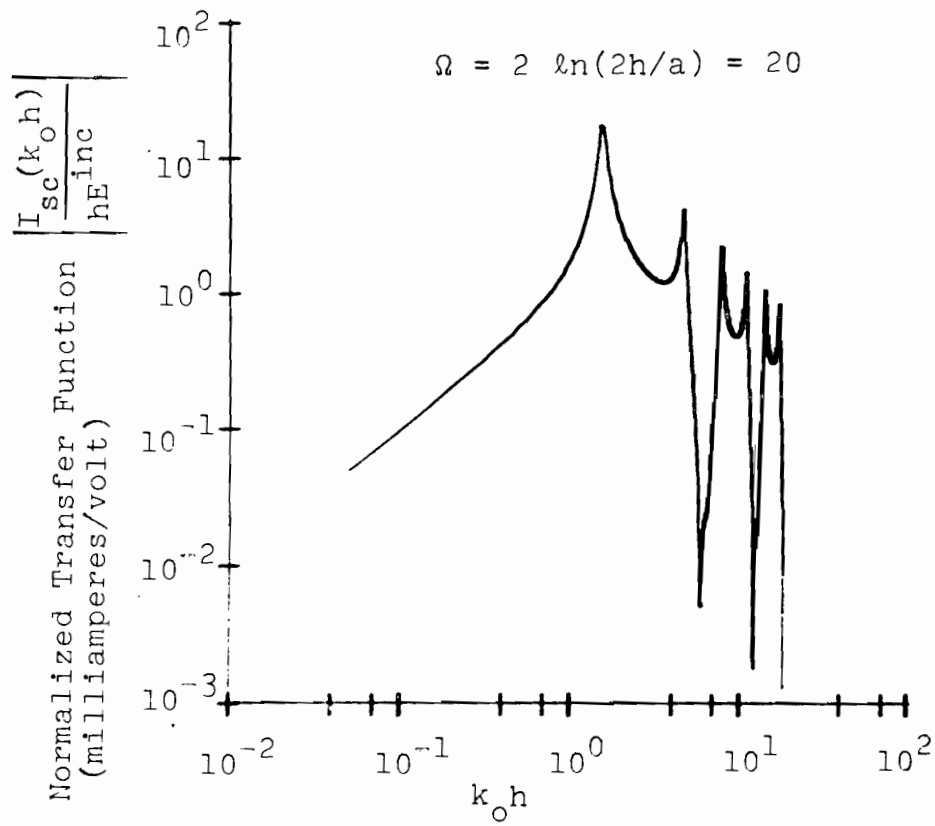
$k_0 h$	Re $\{I_a(k_0 h) h E^{inc}\}$	Im $\{I_a(k_0 h) h E^{inc}\}$	Re $\{Z_a(k_0 h)\}$	Im $\{Z_a(k_0 h)\}$
11.2500	-3.303519486E-01	2.036553066E-01	2.505522700E+02	1.788041842E+02
11.3000	-2.634545383E-01	1.807975126E-01	2.797457177E+02	2.037484446E+02
11.3500	-2.192318453E-01	1.578749193E-01	3.129661068E+02	2.273713922E+02
11.4000	-1.796453580E-01	1.360989598E-01	3.505581521E+02	2.490625888E+02
11.4500	-1.474273620E-01	1.159954537E-01	3.928243698E+02	2.680400229E+02
11.5000	-1.209260167E-01	9.773557409E-02	4.399289911E+02	2.823422266E+02
11.5500	-9.889763004E-02	8.121211720E-02	4.919788752E+02	2.927476674E+02
11.6000	-8.038912560E-02	6.663313478E-02	5.487980107E+02	2.978695026E+02
11.6500	-6.470321481E-02	5.257142030E-02	6.095007562E+02	2.941266242E+02
11.7000	-5.120781563E-02	4.109030890E-02	6.732317090E+02	2.800128822E+02
11.7500	-3.975280837E-02	3.175672652E-02	7.391557244E+02	2.566628858E+02
11.8000	-2.973000375E-02	2.274735357E-02	8.018570304E+02	2.291921922E+02
11.8500	-2.082568293E-02	1.485113802E-02	8.616116492E+02	1.709954705E+02
11.9000	-1.331426448E-02	7.969870037E-03	9.181118328E+02	1.095072755E+02
11.9500	-6.526104702E-03	2.017790922E-03	9.585401225E+02	2.735673828E+01
12.0000	-4.935919693E-04	-3.079183368E-03	9.827046074E+02	-4.261301709E+01
12.0500	4.895698927E-03	-7.284525919E-03	9.918058567E+02	-1.264372661E+02
12.1000	9.732175934E-03	-1.095199270E-02	9.967192857E+02	-2.105084528E+02
12.1500	1.411321218E-02	-1.282451840E-02	9.963002260E+02	-2.921895022E+02
12.2000	1.808626682E-02	-1.604506816E-02	9.929465235E+02	-3.623521306E+02
12.2500	2.171634208E-02	-1.762732879E-02	9.803724030E+02	-4.247070669E+02
12.3000	2.505306285E-02	-1.862602591E-02	9.586766615E+02	-4.760972377E+02
12.3500	2.814372375E-02	-1.902757739E-02	9.285460777E+02	-5.163406827E+02
12.4000	3.102599345E-02	-1.985224442E-02	8.924000020E+02	-5.458002976E+02
12.4500	3.273738227E-02	-1.910420810E-02	8.512195012E+02	-5.650912420E+02
12.5000	3.331248202E-02	-1.670205222E-02	8.170080012E+02	-5.778866622E+02
12.5500	3.278448857E-02	-1.487773272E-02	7.854269788E+02	-5.826619241E+02
12.6000	4.119620348E-02	-1.237377105E-02	7.5171260240E+02	-5.816542088E+02
12.6500	4.255102554E-02	-9.260181404E-03	7.233707322E+02	-5.750659346E+02
12.7000	4.591402593E-02	-5.408220220E-03	6.912223919E+02	-5.665455777E+02
12.7500	4.831305750E-02	-1.055634056E-03	6.636063075E+02	-5.542865825E+02
12.8000	5.079026568E-02	4.112375105E-03	6.403646726E+02	-5.395334021E+02
12.8500	5.330376790E-02	1.004062323E-02	6.202028948E+02	-5.231244083E+02
12.9000	5.617983986E-02	1.685545706E-02	6.001463972E+02	-5.053506637E+02
12.9500	5.921571734E-02	2.457654120E-02	5.747873006E+02	-4.865700038E+02
13.0000	6.258326943E-02	3.319039922E-02	5.518453727E+02	-4.670089909E+02
13.0500	6.638388592E-02	4.319623629E-02	5.312245069E+02	-4.468605793E+02
13.1000	7.074514942E-02	5.434262559E-02	5.127062420E+02	-4.262987622E+02
13.1500	7.582980769E-02	6.691744455E-02	4.961212658E+02	-4.054052691E+02
13.2000	8.184846008E-02	8.110847500E-02	4.812202860E+02	-3.842680147E+02
13.2500	8.907717857E-02	9.713676224E-02	4.681727036E+02	-3.629422630E+02
13.3000	9.789259338E-02	1.152579647E-01	4.565688035E+02	-3.414466243E+02
13.3500	1.087578373E-01	1.357649578E-01	4.464098255E+02	-3.198571038E+02
13.4000	1.222744537E-01	1.589816363E-01	4.376212684E+02	-2.981302021E+02
13.4500	1.396576104E-01	1.852449425E-01	4.301420715E+02	-2.762956009E+02
13.5000	1.618946530E-01	2.148596854E-01	4.239279780E+02	-2.543182627E+02
13.5500	1.908888489E-01	2.479984900E-01	4.189451118E+02	-2.322191286E+02
13.6000	2.291664932E-01	2.844924950E-01	4.151776604E+02	-2.099717507E+02
13.6500	2.802221431E-01	3.234102326E-01	4.126232492E+02	-1.875636247E+02
13.7000	3.487043386E-01	3.622451985E-01	4.112939454E+02	-1.649775449E+02
13.7500	4.402103355E-01	3.954620253E-01	4.112165792E+02	-1.421970726E+02
13.8000	5.599105402E-01	4.123132175E-01	4.124322648E+02	-1.192115223E+02
13.8500	7.076968998E-01	3.947171266E-01	4.150021468E+02	-9.600266241E+01
13.9000	8.704402878E-01	3.193464427E-01	4.189923288E+02	-7.258572893E+01
13.9500	1.012302254E+00	1.708639868E-01	4.245149679E+02	-4.894745051E+01
14.0000	1.280855026E+00	-3.555594721E-02	4.316644786E+02	-2.510970489E+01

$$\Omega = 2 \ln(2h/a) = 15$$

$k_0 h$	Re $\{I_a(k_0 h)/hE^{inc}\}$	Im $\{I_a(k_0 h)/hE^{inc}\}$	Re $\{Z_a(k_0 h)\}$	Im $\{Z_a(k_0 h)\}$
14.0500	1.075795705E+00	-2.506739271E-01	1.405797539E+02	-1.104466411E+00
14.1000	9.894025376E-01	-4.248161463E-01	1.514152675E+02	7.301742564E+01
14.1500	8.703744827E-01	-5.389466035E-01	1.643478458E+02	4.717827215E+01
14.2000	7.503553725E-01	-6.008495389E-01	1.795767657E+02	7.126604239E+01
14.2500	6.445197773E-01	-6.269877871E-01	1.973277176E+02	9.512951322E+01
14.3000	5.567228826E-01	-6.317011816E-01	2.178249350E+02	1.185580252E+02
14.3500	4.857110384E-01	-6.246895466E-01	2.413355258E+02	1.412772641E+02
14.4000	4.296769110E-01	-6.118200187E-01	2.681097238E+02	1.629295110E+02
14.4500	3.827596463E-01	-5.964440682E-01	2.983003891E+02	1.830679270E+02
14.5000	3.455352421E-01	-5.804114410E-01	3.323947516E+02	2.010899008E+02
14.5500	3.150940588E-01	-5.647013268E-01	3.702312784E+02	2.163221184E+02
14.6000	2.899286549E-01	-5.498067904E-01	4.119543847E+02	2.270132497E+02
14.6500	2.699426478E-01	-5.359573075E-01	4.574072101E+02	2.345870292E+02
14.7000	2.512673976E-01	-5.232207598E-01	5.062023727E+02	2.391570554E+02
14.7500	2.352452284E-01	-5.115942032E-01	5.576301999E+02	2.395906422E+02
14.8000	2.223684778E-01	-5.010322251E-01	6.106310767E+02	2.370514722E+02
14.8500	2.123427052E-01	-4.914710739E-01	6.650673975E+02	1.946344001E+02
14.9000	2.025573554E-01	-4.829400230E-01	7.198700527E+02	1.627374146E+02
14.9500	1.940663764E-01	-4.750724000E-01	7.810722735E+02	1.312234320E+02
15.0000	1.866729766E-01	-4.681006217E-01	8.492621481E+02	7.991935527E+01
15.0500	1.799181001E-01	-4.619652525E-01	9.245890897E+02	1.299939614E+01
15.1000	1.739720540E-01	-4.566151664E-01	9.960402263E+02	-5.041141322E+01
15.1500	1.686281073E-01	-4.514023470E-01	1.065923706E+02	-1.166770359E+02
15.2000	1.637976014E-01	-4.470863126E-01	1.133890299E+02	-1.390790905E+02
15.2500	1.594061725E-01	-4.433338931E-01	1.200612209E+02	-2.466132210E+02
15.3000	1.553928038E-01	-4.401160201E-01	1.274255125E+02	-3.050049142E+02
15.3500	1.516975266E-01	-4.374097994E-01	1.356141396E+02	-3.573171620E+02
15.4000	1.482795071E-01	-4.351970078E-01	1.445792157E+02	-4.017001400E+02
15.4500	1.450955336E-01	-4.334440079E-01	1.543850896E+02	-4.380831102E+02
15.5000	1.421089239E-01	-4.322029206E-01	1.650722802E+02	-4.635776003E+02
15.5500	1.392962533E-01	-4.314089238E-01	1.766931100E+02	-4.876792704E+02
15.6000	1.366963401E-01	-4.310823122E-01	1.893279869E+02	-5.020986355E+02
15.6500	1.343006869E-01	-4.312239242E-01	1.426338125E+02	-5.106458559E+02
15.7000	1.321497461E-01	-4.318362377E-01	5.018224941E+02	-5.141446300E+02
15.7500	1.299307091E-01	-4.329911363E-01	4.652633395E+02	-5.132776443E+02
15.8000	1.265794961E-01	-4.346329768E-01	4.271566304E+02	-5.090545644E+02
15.8500	1.241118482E-01	-4.368073764E-01	3.885777370E+02	-5.017091347E+02
15.9000	1.215931467E-01	-4.395673222E-01	3.499140925E+02	-4.921415490E+02
15.9500	1.189839012E-01	-4.429421075E-01	3.128090453E+02	-4.805329794E+02
16.0000	1.162336158E-01	-4.469736460E-01	2.76248907E+02	-4.673434257E+02
16.0500	1.133042106E-01	-4.517372459E-01	2.415684027E+02	-4.528764731E+02
16.1000	1.101164516E-01	-4.572922652E-01	2.0915976278E+02	-4.373777582E+02
16.1500	1.065969353E-01	-4.636932929E-01	1.7941590229E+02	-4.210441554E+02
16.2000	1.026483175E-01	-4.710772804E-01	1.529283102E+02	-4.040319431E+02
16.2500	9.914799260E-02	-4.795315824E-01	1.2969064747E+02	-3.864432764E+02
16.3000	9.593950656E-02	-4.891015471E-01	1.092023852E+02	-3.584326097E+02
16.3500	9.292067547E-02	-5.002080504E-01	8.786452839E+02	-3.500151865E+02
16.4000	7.952707915E-02	-5.127540774E-01	6.66863255E+02	-3.312419709E+02
16.4500	7.708888951E-02	-5.270296932E-01	4.560769770E+02	-3.122129700E+02
16.5000	5.980817499E-02	-5.432296228E-01	2.467566613E+02	-2.928957331E+02
16.5500	4.446272509E-02	-5.615836593E-01	1.396791306E+02	-2.733279170E+02
16.6000	2.954120685E-02	-5.822770417E-01	6.213028653E+02	-2.535199161E+02
16.6500	7.953928054E-03	-6.054106122E-01	1.261265158E+02	-2.334764649E+02
16.7000	-1.991412589E-02	-6.308769260E-01	1.216169279E+02	-2.131982929E+02
16.7500	-5.624952190E-02	-6.581260023E-01	1.18292713E+02	-1.926836039E+02
16.8000	-1.030202842E-01	-6.867361452E-01	1.161522001E+02	-1.719295340E+02

$$\Omega = 2 \ln(2h/a) = 15$$

$k_0 h$	$\text{Re} \{I_a(k_0 h)/hE^{inc}\}$	$\text{Im} \{I_a(k_0 h)/hE^{inc}\}$	$\text{Re} \{Z_a(k_0 h)\}$	$\text{Im} \{Z_a(k_0 h)\}$
16.8500	-1.664122506E-01	-7.106624742E-01	1.152357330E+02	-1.509336292E+02
16.9000	-2.472241515E-01	-7.270891059E-01	1.155807702E+02	-1.296954751E+02
16.9500	-3.479822205E-01	-7.251309664E-01	1.172427291E+02	-1.082184989E+02
17.0000	-4.644109592E-01	-6.907640712E-01	1.202917680E+02	-8.651209023E+01
17.0500	-5.809661811E-01	-6.102067238E-01	1.248136733E+02	-6.459411742E+01
17.1000	-6.791591450E-01	-4.811161481E-01	1.309106271E+02	-4.249398497E+01
17.1500	-7.052076198E-01	-2.230258763E-01	1.387018511E+02	-2.025635527E+01
17.2000	-6.796767395E-01	-1.704051558E-01	1.483239908E+02	2.054293429E+00
17.2500	-6.1095556168E-01	-5.054343002E-02	1.609309796E+02	2.434813859E+01
17.3000	-5.242570466E-01	2.876975835E-02	1.736930769E+02	4.650332313E+01
17.3500	-4.281450021E-01	7.378702611E-02	1.897946318E+02	6.835799771E+01
17.4000	-3.615896972E-01	9.488678121E-02	2.084299400E+02	8.970104179E+01
17.4500	-2.970764701E-01	1.010749011E-01	2.297963940E+02	1.102615794E+02
17.5000	-2.439967583E-01	9.865408337E-02	2.540839272E+02	1.296976249E+02
17.5500	-2.006771364E-01	9.161417481E-02	2.814595403E+02	1.475846749E+02
17.6000	-1.653103460E-01	8.235200750E-02	3.120456387E+02	1.634056599E+02
17.6500	-1.362976102E-01	7.226174646E-02	3.458910420E+02	1.765444997E+02
17.7000	-1.123303230E-01	6.213224198E-02	3.829340737E+02	1.862866573E+02
17.7500	-9.237308248E-02	5.239425789E-02	4.229583877E+02	1.918311883E+02
17.8000	-7.561793118E-02	4.326915802E-02	4.655442879E+02	1.923196121E+02
17.8500	-6.143663922E-02	3.485713453E-02	5.100215203E+02	1.868870166E+02
17.9000	-4.933974431E-02	2.718931839E-02	5.554334342E+02	1.747389101E+02
17.9500	-3.894396947E-02	2.025852701E-02	6.005260573E+02	1.552528899E+02
18.0000	-2.994714626E-02	1.403740118E-02	6.437773651E+02	1.280966954E+02
18.0500	-2.210920407E-02	8.489064920E-03	6.824790395E+02	9.334456774E+01
18.1000	-1.523785572E-02	3.573341315E-03	7.178735297E+02	5.156532863E+01
18.1500	-9.177785967E-03	-7.496825488E-04	7.453339216E+02	3.852809859E+00
18.2000	-3.802464978E-03	-4.517672557E-03	7.645567302E+02	-4.822321869E+01
18.2500	9.920730849E-04	-7.765001052E-03	7.747264017E+02	-1.027489302E+02
18.3000	5.292011591E-03	-1.052225345E-02	7.756120885E+02	-1.576605881E+02
18.3500	9.169450425E-03	-1.281605361E-02	7.675736463E+02	-2.109608228E+02



$$\Omega = 2 \ln(2h/a) = 20$$

$k_0 h$	Re $\{I_a(k_0 h)/hE^{inc}\}$	Im $\{I_a(k_0 h)/hE^{inc}\}$	Re $\{Z_a(k_0 h)\}$	Im $\{Z_a(k_0 h)\}$
0.0500	1.645475896E-07	4.921222502E-02	4.740855882E-02	-1.978760024E+04
0.1000	2.649646358E-06	9.875982106E-02	1.891155182E-01	-9.847903438E+03
0.1500	1.255814969E-05	1.489856341E-01	4.252037633E-01	-5.532388225E+03
0.2000	4.350153354E-05	2.002470910E-01	7.590841742E-01	-4.867759164E+03
0.2500	1.093027248E-04	2.520250543E-01	1.190512445E+00	-3.862612009E+03
0.3000	2.300714463E-04	3.074329358E-01	1.722609670E+00	-3.186917086E+03
0.3500	4.087592263E-04	3.642277631E-01	2.358382524E+00	-2.599331056E+03
0.4000	7.743487715E-04	4.238234282E-01	3.101492573E+00	-2.329206906E+03
0.4500	1.289937069E-03	4.869070101E-01	3.956228440E+00	-2.037299788E+03
0.5000	2.056040040E-03	5.538593770E-01	4.927626708E+00	-1.800058956E+03
0.5500	3.155601756E-03	6.257814540E-01	6.021497662E+00	-1.602490851E+03
0.6000	4.749146258E-03	7.035287003E-01	7.244504204E+00	-1.434459178E+03
0.6500	6.971472422E-03	7.882466629E-01	8.604246507E+00	-1.292437494E+03
0.7000	1.007107415E-02	8.813825113E-01	1.010936200E+01	-1.162035918E+03
0.7500	1.427242700E-02	9.845694429E-01	1.176964125E+01	-1.049768958E+03
0.8000	2.033449220E-02	1.100344812E+00	1.359616571E+01	-9.469804911E+02
0.8500	2.81612664E-02	1.221268239E+00	1.560146703E+01	-8.542610297E+02
0.9000	4.018298502E-02	1.331177032E+00	1.779272022E+01	-7.69290639E+02
0.9500	5.648415453E-02	1.555052439E+00	2.020695664E+01	-6.905593818E+02
1.0000	7.075740667E-02	1.750480220E+00	2.294123404E+01	-6.171001567E+02
1.0500	1.135726112E-01	2.004526702E+00	2.572344579E+01	-5.480068511E+02
1.1000	1.632519223E-01	2.302231841E+00	2.837668053E+01	-4.825526064E+02
1.1500	2.400023183E-01	2.675041230E+00	3.222766834E+01	-4.201225705E+02
1.2000	3.537340372E-01	3.153458587E+00	3.610679300E+01	-3.601822911E+02
1.2500	5.092057953E-01	3.785777550E+00	4.024884960E+01	-3.022933703E+02
1.3000	7.400970431E-01	4.653450736E+00	4.479374160E+01	-2.460283421E+02
1.3500	1.0674121919E+00	5.880307365E+00	4.978745539E+01	-1.910284504E+02
1.4000	1.512309516E+00	7.650624764E+00	5.528314523E+01	-1.369589224E+02
1.4500	2.047532629E+00	9.562000021E+00	6.142850294E+01	-8.250711264E+01
1.5000	2.752026258E+00	1.163190909E+00	6.803743631E+01	-2.037634258E+01
1.5500	3.637110279E+00	-5.350715510E+00	7.545214621E+01	2.272144956E+01
1.6000	4.656665462E+00	-8.324253204E+00	8.369571051E+01	7.607114866E+01
1.6500	5.900902089E+00	-7.222932015E+00	9.285537007E+01	1.290601520E+02
1.7000	7.360735642E+00	-5.982188635E+00	1.031005496E+02	1.846240019E+02
1.7500	9.067156652E+00	-5.032154664E+00	1.145881691E+02	2.405521769E+02
1.8000	1.1050483163E+00	-4.342829188E+00	1.275193046E+02	2.978942607E+02
1.8500	1.3246564845E+00	-3.819610501E+00	1.421378761E+02	3.570666933E+02
1.9000	1.5685177958E+00	-3.413439799E+00	1.587416845E+02	4.184603030E+02
1.9500	1.9406173144E+01	-2.092439420E+00	1.776088500E+02	4.825089210E+02
2.0000	2.449382265E+01	-2.832587893E+00	1.994647711E+02	5.406085502E+02
2.0500	3.147362298E+01	-2.619243971E+00	2.246118452E+02	6.205792889E+02
2.1000	4.079992115E+01	-2.429027141E+00	2.520645448E+02	6.957764362E+02
2.1500	5.241151130E+01	-2.286668674E+00	2.801500641E+02	7.760038325E+02
2.2000	6.704471441E+01	-2.185992710E+00	3.086692623E+02	8.620761144E+02
2.2500	8.424371753E+01	-2.042714383E+00	3.3769908721E+02	9.549178179E+02
2.3000	1.0411343132E+02	-1.943714804E+00	3.652028689E+02	1.055562359E+03
2.3500	1.2848989469E+02	-1.856587552E+00	3.961069569E+02	1.165135855E+03
2.4000	1.621664727E+02	-1.779245190E+00	4.283521772E+02	1.284780351E+03
2.4500	2.0424369505E+02	-1.710574461E+00	4.627189724E+02	1.415502024E+03
2.5000	2.551661541E+02	-1.649040585E+00	4.910614148E+02	1.557809026E+03
2.5500	3.090299761E+02	-1.5923768143E+00	5.1018214483E+03	1.710955993E+03
2.6000	3.763034637E+02	-1.540960273E+00	5.250865804E+03	1.871373079E+03
2.6500	4.542886209E+02	-1.498961469E+00	5.357073565E+03	2.029423647E+03
2.7000	5.431925086E+02	-1.468228178E+00	5.433777128E+03	2.163457846E+03
2.7500	6.435485684E+02	-1.421208193E+00	5.492636835E+03	2.227850306E+03
2.8000	7.545829206E+02	-1.378782349E+00	5.517622959E+03	2.137622178E+03

$$\Omega = 2 \ln(2h/a) = 20$$

$k_0 h$	$\text{Re} \{I_a(k_0 h) h E^{inc}\}$	$\text{Im} \{I_a(k_0 h) / h E^{inc}\}$	$\text{Re} \{Z_a(k_0 h)\}$	$\text{Im} \{Z_a(k_0 h)\}$
2.3500	2.464017854E-01	-1.357457508E+00	3.955812927E+03	1.762021158E+03
2.4000	2.388316406E-01	-1.329945121E+00	4.652026031E+03	9.784441558E+02
2.4500	2.319423018E-01	-1.305064746E+00	4.962405601E+03	-1.625293730E+02
2.5000	2.255088294E-01	-1.282632266E+00	4.692339471E+03	-1.331451981E+03
2.5500	2.195160459E-01	-1.262426259E+00	3.989923669E+03	-2.165017989E+03
2.6000	2.139065036E-01	-1.244534359E+00	3.172831367E+03	-2.567812229E+03
2.6500	2.086237903E-01	-1.228650539E+00	2.450420808E+03	-2.655624655E+03
2.7000	2.036366028E-01	-1.214773194E+00	1.882355309E+03	-2.572190124E+03
2.7500	1.989345206E-01	-1.202852952E+00	1.458492009E+03	-2.413943844E+03
2.8000	1.943226543E-01	-1.192867155E+00	1.143917141E+03	-2.232218700E+03
2.8500	1.898294504E-01	-1.184810007E+00	9.099793293E+02	-2.051095668E+03
2.9000	1.855663368E-01	-1.178702428E+00	7.340200365E+02	-1.880615697E+03
2.9500	1.814608121E-01	-1.174502725E+00	5.998259361E+02	-1.724113033E+03
3.0000	1.772944044E-01	-1.172555076E+00	4.969283090E+02	-1.581892171E+03
3.0500	1.730808544E-01	-1.172693137E+00	4.146622172E+02	-1.452992428E+03
3.1000	1.687883232E-01	-1.175130076E+00	3.501928137E+02	-1.336011969E+03
3.1500	1.643223699E-01	-1.180111227E+00	2.983304413E+02	-1.229479884E+03
3.2000	1.596210722E-01	-1.187814005E+00	2.564240642E+02	-1.132013536E+03
3.2500	1.545418446E-01	-1.198560231E+00	2.222768836E+02	-1.042375194E+03
3.3000	1.489432829E-01	-1.212731606E+00	1.942699255E+02	-9.594826774E+02
3.3500	1.426301643E-01	-1.230012525E+00	1.712172981E+02	-8.824002131E+02
3.4000	1.355383022E-01	-1.250410145E+00	1.522000162E+02	-8.103219444E+02
3.4500	1.267047499E-01	-1.281340973E+00	1.365461144E+02	-7.425538455E+02
3.5000	1.162138211E-01	-1.323599972E+00	1.236874286E+02	-6.784965168E+02
3.5500	1.021463230E-01	-1.357527321E+00	1.132115304E+02	-6.176223786E+02
3.6000	8.640355589E-02	-1.403931109E+00	1.047899972E+02	-5.594900141E+02
3.6500	6.434506928E-02	-1.472056599E+00	9.816230379E+01	-5.037074012E+02
3.7000	3.439060545E-02	-1.550237054E+00	9.213088951E+01	-4.498983382E+02
3.7500	-7.657296574E-02	-1.647943266E+00	8.954016267E+01	-3.977561547E+02
3.8000	-6.891947791E-02	-1.770943464E+00	8.727336445E+01	-3.469944064E+02
3.8500	-1.620629985E-01	-1.927719767E+00	8.624559724E+01	-2.973514772E+02
3.9000	-3.108109452E-01	-2.128228286E+00	8.639952210E+01	-2.485853456E+02
3.9500	-5.617980679E-01	-2.380294042E+00	8.770228921E+01	-2.004693001E+02
4.0000	-1.008413094E+00	-2.662132264E+00	9.014414702E+01	-1.527891147E+02
4.0500	-1.816076582E+00	-2.960402609E+00	9.373651559E+01	-1.053346208E+02
4.1000	-2.069027589E+00	-3.250047864E+00	9.851290684E+01	-5.790657215E+01
4.1500	-3.060228241E+00	-3.526636671E-01	1.045291973E+02	-1.030376641E+01
4.2000	-3.373184538E+00	6.457070762E-01	1.118653040E+02	3.767476453E+01
4.2500	-2.275727242E+00	1.226779329E+00	1.206278581E+02	8.623333225E+01
4.3000	-1.487052413E+00	1.213220959E+00	1.209537670E+02	1.355821812E+02
4.3500	-1.072522325E+00	1.055848879E+00	1.430152301E+02	1.859399461E+02
4.4000	-7.182023049E-01	8.826212369E-01	1.570263007E+02	2.375360207E+02
4.4500	-5.246514224E-01	7.220425273E-01	1.732514804E+02	2.906127116E+02
4.5000	-3.978017752E-01	6.076456662E-01	1.920169051E+02	3.454270256E+02
4.5500	-3.087511291E-01	5.059661590E-01	2.137248984E+02	4.022517785E+02
4.6000	-2.439436533E-01	4.226203931E-01	2.388728585E+02	4.613755062E+02
4.6500	-1.952363159E-01	3.538773090E-01	2.680780747E+02	5.231003042E+02
4.7000	-1.570462318E-01	2.966761227E-01	3.021099796E+02	5.877361560E+02
4.7500	-1.285674336E-01	2.487187501E-01	3.419226260E+02	6.555893729E+02
4.8000	-1.050603219E-01	2.092264164E-01	3.887603610E+02	7.269412330E+02
4.8500	-8.595005151E-02	1.738279636E-01	4.441306579E+02	8.020103674E+02
4.9000	-7.022614809E-02	1.444580169E-01	5.029986165E+02	8.808882523E+02
4.9500	-5.711826437E-02	1.192810935E-01	5.686572938E+02	9.634302647E+02
5.0000	-4.608471791E-02	9.763575620E-02	6.438851731E+02	1.049073558E+03
5.0500	-3.671315807E-02	7.899356775E-02	7.291123684E+02	1.136535346E+03
5.1000	-2.862910684E-02	6.392977834E-02	8.295813526E+02	1.223319043E+03

$$\Omega = 2 \ln(2h/a) = 20$$

$k_0 h$	$\text{Re} \{I_a(k_0 h) h E^{inc}\}$	$\text{Im} \{I_a(k_0 h) / h E^{inc}\}$	$\text{Re} \{Z_a(k_0 h)\}$	$\text{Im} \{Z_a(k_0 h)\}$
5.6300	-2.176911451E-02	4.202577474E-02	1.111396546E+03	1.304222485E+03
5.7100	-1.576212209E-02	3.721216018E-02	1.321496306E+03	1.273417445E+03
5.7500	-1.051636111E-02	2.704594838E-02	1.576685704E+03	1.416710261E+03
5.8000	-5.909711505E-03	1.840579116E-02	1.881160123E+03	1.414442222E+03
5.8500	-1.842244015E-02	1.113346429E-02	2.221370158E+03	1.338737219E+03
5.9000	1.765503298E-03	5.098053895E-03	2.607537132E+03	1.155112914E+03
5.9500	4.992375338E-03	1.914174341E-04	2.964333886E+03	8.326647342E+02
6.0000	7.367552583E-03	-3.675236783E-03	3.230578145E+03	3.710737985E+02
6.0500	1.046633975E-02	-6.574289107E-03	3.332000936E+03	-1.865475834E+02
6.1000	1.282126177E-02	-8.563627554E-03	3.223562168E+03	-7.476685738E+02
6.1500	1.405351778E-02	-2.688262153E-02	2.964802992E+03	-1.217842255E+02
6.2000	1.604015423E-02	-9.222002900E-02	2.599263653E+03	-1.545405690E+02
6.2500	1.876065573E-02	-2.467298267E-02	2.211272062E+03	-1.730364511E+02
6.3000	2.046096102E-02	-2.156756400E-02	1.849666565E+03	-1.902592639E+02
6.3500	2.207964351E-02	-6.052871883E-02	1.536168555E+03	-1.798125327E+02
6.4000	2.361879094E-02	-3.148064028E-02	1.274842883E+03	-1.746825491E+02
6.4500	2.511165003E-02	5.756776037E-04	1.061215106E+03	-1.669671631E+02
6.5000	2.658340074E-02	5.147446328E-03	8.879364507E+02	-1.580069691E+02
6.5500	2.804093119E-02	1.060854929E-02	7.475259676E+02	-1.486084516E+02
6.6000	2.957391265E-02	1.701375914E-02	6.224281224E+02	-1.392329432E+02
6.6500	3.115611562E-02	2.443247605E-02	5.402656016E+02	-1.301292843E+02
6.7000	3.284708554E-02	3.295622500E-02	4.637643904E+02	-1.214192845E+02
6.7500	3.462433748E-02	4.269208234E-02	4.005788933E+02	-1.131511678E+02
6.8000	3.65429834E-02	5.377712972E-02	3.421001755E+02	-1.053305441E+02
6.8500	3.910633369E-02	6.637928628E-02	2.942979439E+02	-9.794048156E+01
6.9000	4.183936629E-02	8.070597875E-02	2.675262043E+02	-9.095221549E+01
6.9500	4.507496227E-02	9.701428725E-02	2.667215047E+02	-8.433179534E+01
7.0000	4.897892935E-02	1.156324760E-01	2.107235789E+02	-7.804379243E+01
7.0500	5.375876243E-02	1.369281205E-01	1.898165179E+02	-7.205334858E+01
7.1000	5.974873224E-02	1.614627952E-01	1.702832228E+02	-6.632722677E+01
7.1500	6.734391161E-02	1.892454015E-01	1.549312853E+02	-6.083428661E+01
7.2000	7.7156575128E-02	2.229179710E-01	1.4006670274E+02	-5.554561766E+01
7.2500	8.911406019E-02	2.617596219E-01	1.214757445E+02	-5.042448504E+01
7.3000	1.075497476E-01	3.077789457E-01	1.229066402E+02	-4.547617244E+01
7.3500	1.315968928E-01	3.62815948E-01	1.161613323E+02	-4.064777473E+01
7.4000	1.656340296E-01	4.292467932E-01	1.110951040E+02	-3.592797035E+01
7.4500	2.153653857E-01	5.100286340E-01	1.075602928E+02	-3.129679047E+01
7.5000	2.905823288E-01	6.082519384E-01	1.055013714E+02	-2.673539409E+01
7.5500	4.087302452E-01	7.256201501E-01	1.048513997E+02	-2.222585358E+01
7.6000	6.009364451E-01	8.559624266E-01	1.055796162E+02	-1.775095257E+01
7.6500	9.179476299E-01	9.645999392E-01	1.076800295E+02	-1.329399650E+01
7.7000	1.407911094E+00	9.359667530E-01	1.111708739E+02	-8.838636046E+00
7.7500	1.966242044E+00	5.416738434E-01	1.160949545E+02	-4.358703301E+00
7.8000	2.61966317E+00	-2.362318953E-01	1.225208210E+02	1.319383709E+00
7.8500	1.822236796E+00	-8.805455120E-01	1.305448595E+02	4.679528757E+01
7.9000	1.344063530E+00	-1.131325443E+00	1.402943915E+02	9.290525367E+01
7.9500	9.743799628E-01	-1.151293042E+00	1.519319380E+02	1.398149091E+02
8.0000	7.26692771E-01	-1.090910434E+00	1.656608677E+02	1.877014175E+02
8.0500	5.633632540E-01	-1.013284922E+00	1.817327273E+02	2.367338455E+02
8.1000	4.526099131E-01	-9.291119679E-01	2.004566470E+02	2.870899032E+02
8.1500	3.750112171E-01	-8.723065000E-01	2.222113250E+02	3.389482517E+02
8.2000	3.182103817E-01	-8.177981492E-01	2.474602351E+02	3.924816235E+02
8.2500	2.768748407E-01	-7.700709405E-01	2.767708507E+02	4.478517766E+02
8.3000	2.447568770E-01	-7.293294254E-01	3.106388385E+02	5.051970488E+02
8.3500	2.195952904E-01	-6.944146120E-01	3.505182926E+02	5.646132978E+02
8.4000	1.994926929E-01	-6.642939792E-01	3.968590752E+02	6.261240777E+02

$$\Omega = 2 \ln(2h/a) = 20$$

$k_0 h$	Re $\{I_a(k_0 h)hE^{inc}\}$	Im $\{I_a(k_0 h)/hE^{inc}\}$	Re $\{Z_a(k_0 h)\}$	Im $\{Z_a(k_0 h)\}$
8.4500	1.821549136E-01	-6.221608955E-01	4.511520117E+02	6.802634450E+02
8.5000	1.626763811E-01	-6.153582801E-01	5.149816686E+02	7.548600033E+02
8.5500	1.584036011E-01	-5.953587012E-01	5.902822867E+02	8.212185472E+02
8.6000	1.488778737E-01	-5.777378331E-01	6.794907124E+02	8.876664005E+02
8.6500	1.407309521E-01	-5.621527816E-01	7.551117070E+02	9.524543352E+02
8.7000	1.337005202E-01	-5.483240843E-01	9.106063285E+02	1.012772217E+03
8.7500	1.275811899E-01	-5.360269162E-01	1.059315513E+03	1.064252304E+03
8.8000	1.222124010E-01	-5.250718014E-01	1.224470706E+03	1.100325418E+03
8.8500	1.174675219E-01	-5.153056498E-01	1.432167588E+03	1.111506880E+03
8.9000	1.132452660E-01	-5.066010700E-01	1.669647048E+03	1.084692115E+03
8.9500	1.094636451E-01	-4.988525088E-01	1.222596767E+03	1.004517425E+03
9.0000	1.060556329E-01	-4.913722952E-01	2.181776874E+03	8.527608337E+02
9.0500	1.029657296E-01	-4.858982928E-01	2.420635062E+03	6.209746617E+02
9.1000	1.001477009E-01	-4.805405632E-01	2.623238913E+03	3.080509239E+02
9.1500	9.756241770E-02	-4.752825313E-01	2.692707536E+03	-6.222622215E+01
9.2000	9.517611426E-02	-4.710691224E-01	2.671111342E+03	-4.491216222E+02
9.2500	9.295674720E-02	-4.684757695E-01	2.540251015E+03	-8.012932293E+02
9.3000	9.082763505E-02	-4.656776057E-01	2.322180015E+03	-1.085248430E+02
9.3500	8.882672492E-02	-4.634528018E-01	2.075620545E+03	-1.286583029E+02
9.4000	8.700594432E-02	-4.613106076E-01	1.813150640E+03	-1.407396098E+02
9.4500	8.531547850E-02	-4.607360250E-01	1.564355435E+03	-1.462747498E+02
9.5000	8.360628026E-02	-4.602223205E-01	1.340944205E+03	-1.471872130E+02
9.5500	8.192249295E-02	-4.602086001E-01	1.146794072E+03	-1.447306812E+02
9.6000	8.029577524E-02	-4.603752949E-01	9.912555571E+02	-1.401864747E+02
9.6500	7.865473774E-02	-4.602307744E-01	8.415263990E+02	-1.342980109E+02
9.7000	7.699414135E-02	-4.642478842E-01	7.241375921E+02	-1.279391250E+02
9.7500	7.528890989E-02	-4.662216646E-01	6.255853274E+02	-1.211809322E+02
9.8000	7.351041994E-02	-4.703578850E-01	5.427544244E+02	-1.142626895E+02
9.8500	7.162417382E-02	-4.746286320E-01	4.729702293E+02	-1.076260612E+02
9.9000	6.958872444E-02	-4.798093835E-01	4.140050820E+02	-1.010549206E+02
9.9500	6.725263863E-02	-4.860148421E-01	3.640309179E+02	-9.469249102E+01
10.0000	6.485100916E-02	-4.933682501E-01	3.215591010E+02	-8.855622423E+01
10.0500	6.200043585E-02	-5.020270666E-01	2.853915751E+02	-8.265094950E+01
10.1000	5.860126540E-02	-5.121847479E-01	2.545188801E+02	-7.696761966E+01
10.1500	5.479070486E-02	-5.240810340E-01	2.291765323E+02	-7.149431983E+01
10.2000	5.037074344E-02	-5.380147056E-01	2.057094226E+02	-6.621529840E+01
10.2500	4.422215857E-02	-5.542205289E-01	1.865932862E+02	-6.111321189E+01
10.3000	3.706582085E-02	-5.725015775E-01	1.704018680E+02	-5.617021341E+01
10.3500	2.784701046E-02	-5.963082480E-01	1.567800442E+02	-5.136845009E+01
10.4000	1.584012728E-02	-6.232746410E-01	1.454746106E+02	-4.669044083E+01
10.4500	-1.500043749E-04	-6.554601697E-01	1.362331703E+02	-4.211928527E+01
10.5000	-2.200766558E-02	-6.940751056E-01	1.298855055E+02	-3.763864028E+01
10.5500	-5.266337842E-02	-7.405613664E-01	1.232917715E+02	-3.323280903E+01
10.6000	-9.696022764E-02	-7.964194922E-01	1.163464638E+02	-2.888665319E+01
10.6500	-1.630440076E-01	-8.625188208E-01	1.169745616E+02	-2.458553481E+01
10.7000	-2.645625560E-01	-9.360659420E-01	1.161288339E+02	-2.031523544E+01
10.7500	-4.234732174E-01	-1.009058840E+00	1.167820984E+02	-1.606187002E+01
10.8000	-6.671901564E-01	-1.038663570E+00	1.189563450E+02	-1.181180127E+01
10.8500	-9.953402246E-01	-9.399850681E-01	1.226626702E+02	-7.551559228E+00
10.9000	-1.285656719E+00	-6.080254670E-01	1.279620572E+02	-3.267771142E+00
10.9500	-1.314511290E+00	-1.226002263E-01	1.348368614E+02	1.052892780E+01
11.0000	-1.096455408E+00	2.157955732E-01	1.436993612E+02	5.423750321E+01
11.0500	-8.071703957E-01	2.578586362E-01	1.543951763E+02	9.858104437E+01
11.1000	-5.352550895E-01	2.770075727E-01	1.672078820E+02	1.436919206E+02
11.1500	-4.294261747E-01	2.496182107E-01	1.823649688E+02	1.897006300E+02
11.2000	-3.219348284E-01	2.075797702E-01	2.001454026E+02	2.367335776E+02

$$\Omega = 2 \ln(2h/a) = 20$$

$k_0 h$	$\text{Re} \{I_a(k_0 h) h E^{inc}\}$	$\text{Im} \{I_a(k_0 h) / h E^{inc}\}$	$\text{Re} \{Z_a(k_0 h)\}$	$\text{Im} \{Z_a(k_0 h)\}$
11.2500	-2.467019879E-01	2.649997003E-01	2.208890975E+02	2.849093964E+02
11.3000	-1.926947601E-01	2.262385577E-01	2.450086793E+02	3.343331477E+02
11.3500	-1.520766797E-01	1.923119069E-01	2.730039486E+02	3.850874464E+02
11.4000	-1.227782551E-01	1.630509384E-01	3.054794587E+02	4.372191294E+02
11.4500	-9.951250454E-02	1.379246721E-01	3.431655470E+02	4.907194405E+02
11.5000	-8.117032486E-02	1.163446941E-01	3.860428791E+02	5.454948281E+02
11.5500	-6.645754562E-02	9.777036589E-02	4.378699407E+02	6.013242095E+02
11.6000	-5.447554098E-02	8.173755528E-02	4.972116532E+02	6.577968329E+02
11.6500	-4.458620142E-02	6.785926252E-02	5.646467531E+02	7.142227363E+02
11.7000	-3.632699789E-02	5.581570337E-02	6.473710726E+02	7.695538275E+02
11.7500	-2.925625689E-02	4.534539633E-02	7.419017862E+02	8.219640825E+02
11.8000	-2.341732124E-02	3.623293259E-02	8.521822468E+02	8.690044716E+02
11.8500	-1.871426254E-02	2.830123576E-02	9.803062595E+02	9.072631585E+02
11.9000	-1.509528864E-02	2.140419682E-02	1.127960667E+03	9.312571153E+02
11.9500	-1.204167863E-02	1.542291413E-02	1.295750673E+03	9.344656895E+02
12.0000	-6.659591034E-03	1.025110468E-02	1.482124080E+03	9.077825791E+02
12.0500	-3.67099789E-03	5.811464388E-03	1.681967421E+03	8.410813924E+02
12.1000	-1.914433702E-03	2.932784200E-03	1.894456352E+03	7.242727760E+02
12.1500	1.350000344E-03	-1.142333276E-03	2.073077030E+03	5.504645595E+02
12.2000	2.400740683E-03	-3.761284648E-03	2.225721743E+03	3.202228651E+02
12.2500	5.421020495E-03	-5.862884478E-03	2.319676290E+03	4.535165275E+01
12.3000	7.175803340E-03	-7.478490324E-03	2.368597746E+03	-2.509842469E+02
12.3500	8.78323252E-03	-8.622865542E-03	2.279079117E+03	-5.393382743E+02
12.4000	1.024423081E-02	-9.344852855E-03	2.152062901E+03	-7.027004983E+02
12.4500	1.163969744E-02	-9.627827221E-03	1.978224567E+03	-9.937976455E+02
12.5000	1.292800257E-02	-9.497050960E-03	1.780665844E+03	-1.127135471E+02
12.5500	1.414613048E-02	-9.924845004E-03	1.572785996E+03	-1.226833777E+02
12.6000	1.531017758E-02	-7.860643325E-03	1.285965558E+03	-1.271782328E+02
12.6500	1.643587713E-02	-6.560912200E-03	1.029673990E+03	-1.282392017E+02
12.7000	1.753906755E-02	-4.723923614E-03	1.052966620E+03	-1.268187229E+02
12.7500	1.862620138E-02	-2.344852855E-03	9.161045782E+02	-1.236928376E+02
12.8000	1.974491631E-02	3.369263422E-04	7.078288224E+02	-1.194506616E+02
12.8500	2.089470604E-02	3.614331506E-03	6.862041415E+02	-1.145183820E+02
12.9000	2.207774012E-02	7.427729394E-03	6.001152921E+02	-1.091944039E+02
12.9500	2.324989897E-02	1.185411333E-02	5.345221033E+02	-1.026819059E+02
13.0000	2.473211445E-02	1.602113397E-02	4.706086267E+02	-9.811570061E+02
13.0500	2.626214667E-02	2.270920735E-02	4.157612365E+02	-9.259258200E+02
13.1000	2.708698415E-02	2.920414554E-02	3.696282026E+02	-8.713612298E+02
13.1500	2.826614325E-02	3.581064710E-02	3.280676977E+02	-8.180723465E+02
13.2000	2.927629267E-02	4.535672594E-02	2.921076227E+02	-7.661140029E+02
13.2500	3.001777511E-02	5.509947353E-02	2.620172717E+02	-7.155389910E+02
13.3000	3.052420257E-02	6.623252523E-02	2.370817267E+02	-6.663315510E+02
13.3500	4.227638469E-02	7.802573266E-02	2.147705294E+02	-6.184321800E+02
13.4000	4.742345121E-02	9.369761007E-02	1.956637920E+02	-5.717533360E+02
13.4500	5.381519173E-02	1.106810665E-01	1.793663912E+02	-5.261904172E+02
13.5000	6.205280538E-02	1.304425000E-01	1.655852845E+02	-4.816290010E+02
13.5500	7.287034089E-02	1.535527867E-01	1.540740895E+02	-4.379495980E+02
13.6000	8.736827941E-02	1.807242451E-01	1.446337150E+02	-3.950306392E+02
13.6500	1.072381034E-01	2.127954542E-01	1.371057984E+02	-3.527504317E+02
13.7000	1.351423361E-01	2.506502920E-01	1.313475336E+02	-3.109891170E+02
13.7500	1.753627461E-01	2.949402915E-01	1.273277218E+02	-2.694242516E+02
13.8000	2.348483463E-01	3.451810108E-01	1.249223867E+02	-2.285409715E+02
13.8500	3.246210469E-01	3.973505085E-01	1.24101861E+02	-1.876219532E+02
13.9000	4.501916629E-01	4.477556374E-01	1.249064280E+02	-1.467522685E+02
13.9500	6.542676123E-01	4.902898503E-01	1.272974714E+02	-1.058182066E+02
14.0000	8.242669464E-01	5.123565396E-01	1.313226500E+02	-6.470714567E+01

$$\Omega = 2 \ln(2h/a) = 20$$

$k_0 h$	Re $\{I_a(k_0 h)/hE^{inc}\}$	Im $\{I_a(k_0 h)/hE^{inc}\}$	Re $\{Z_a(k_0 h)\}$	Im $\{Z_a(k_0 h)\}$
14.0500	1.044008344E+00	-4.379532777E-02	1.270818746E+02	-2.330753498E+01
14.1000	1.017775536E+00	-2.740965509E-01	1.446374120E+02	1.849078773E+01
14.1500	8.502530054E-01	-4.892507347E-01	1.541266971E+02	6.079624349E+01
14.2000	5.522949059E-01	-5.791153892E-01	1.657109521E+02	1.037142742E+02
14.2500	5.113537648E-01	-5.921779466E-01	1.705909469E+02	1.473457115E+02
14.3000	4.013315243E-01	-5.743769452E-01	1.960129919E+02	1.917840378E+02
14.3500	3.240102965E-01	-5.461409940E-01	2.152763519E+02	2.371112830E+02
14.4000	2.681347504E-01	-5.164309831E-01	2.277422974E+02	2.833919571E+02
14.4500	2.271768482E-01	-4.885888428E-01	2.628449838E+02	3.306642159E+02
14.5000	1.964560985E-01	-4.636313472E-01	2.941042829E+02	3.789271461E+02
14.5500	1.722962900E-01	-4.416595640E-01	3.291405657E+02	4.281225783E+02
14.6000	1.544562704E-01	-4.224424250E-01	3.696910833E+02	4.781092495E+02
14.6500	1.397568798E-01	-4.056541608E-01	4.166269810E+02	5.286263534E+02
14.7000	1.278463470E-01	-3.909676891E-01	4.709628414E+02	5.792424748E+02
14.7200	1.180541715E-01	-3.780880137E-01	5.238966432E+02	6.292848243E+02
14.8000	1.098984226E-01	-3.667608959E-01	6.067466549E+02	6.777427930E+02
14.8500	1.030250776E-01	-3.567717834E-01	6.909822925E+02	7.231393766E+02
14.9000	9.717418912E-02	-3.479413429E-01	7.881175056E+02	7.633667778E+02
14.9500	9.214360174E-02	-3.401202456E-01	8.995602707E+02	7.954891863E+02
15.0000	8.778131547E-02	-3.331942483E-01	1.026327377E+03	8.155339869E+02
15.0500	8.396815767E-02	-3.270299123E-01	1.169576736E+03	8.183278891E+02
15.1000	8.061012013E-02	-3.215710629E-01	1.234906677E+03	7.974946445E+02
15.1500	7.763215390E-02	-3.167357926E-01	1.491436937E+03	7.458118832E+02
15.2000	7.497365934E-02	-3.124641588E-01	1.660937679E+03	6.561876532E+02
15.2500	7.258516039E-02	-3.097062369E-01	1.821739883E+03	5.234594433E+02
15.3000	7.042581317E-02	-3.054205965E-01	1.959227060E+03	3.462883734E+02
15.3500	6.846154775E-02	-3.025730793E-01	2.057103950E+03	1.3258180589E+02
15.4000	6.666356870E-02	-3.001359275E-01	2.101847882E+03	-1.059484083E+02
15.4500	6.500727553E-02	-2.980965222E-01	2.086885217E+03	-3.491746234E+02
15.5000	6.347134199E-02	-2.964077944E-01	2.014019508E+03	-5.767296175E+02
15.5500	6.203699462E-02	-2.950867810E-01	1.896987280E+03	-7.721724747E+02
15.6000	6.068741281E-02	-2.941148103E-01	1.748217911E+03	-9.261915744E+02
15.6500	5.940721606E-02	-2.934872006E-01	1.584547554E+03	-1.036810377E+03
15.7000	5.818200905E-02	-2.932031639E-01	1.418736703E+03	-1.107472656E+03
15.7500	5.699796481E-02	-2.932659119E-01	1.259971754E+03	-1.144504561E+03
15.8000	5.584141756E-02	-2.936322673E-01	1.112739389E+03	-1.155027737E+03
15.8500	5.469843243E-02	-2.944633919E-01	9.802936764E+02	-1.145680892E+03
15.9000	5.355436679E-02	-2.956265759E-01	8.626182472E+02	-1.122044074E+03
15.9500	5.239334343E-02	-2.971913140E-01	7.593724175E+02	-1.088513842E+03
16.0000	5.119763693E-02	-2.991847577E-01	6.692852289E+02	-1.048407069E+03
16.0500	4.994691332E-02	-3.016400731E-01	5.909537395E+02	-1.004149425E+03
16.1000	4.861726520E-02	-3.045980361E-01	5.229554396E+02	-9.574722243E+02
16.1500	4.717995398E-02	-3.081083954E-01	4.629547856E+02	-9.095848346E+02
16.2000	4.559973891E-02	-3.122316343E-01	4.127511587E+02	-8.613136224E+02
16.2500	4.383261404E-02	-3.170412154E-01	3.682933125E+02	-8.132076991E+02
16.3000	4.182269396E-02	-3.226264469E-01	3.296759899E+02	-7.656184440E+02
16.3500	3.949785294E-02	-3.290961484E-01	2.961279996E+02	-7.187569575E+02
16.4000	3.676351944E-02	-3.365873420E-01	2.689970543E+02	-6.727357063E+02
16.4500	3.349369701E-02	-3.452512329E-01	2.417342219E+02	-6.275983012E+02
16.5000	2.951773359E-02	-3.553007821E-01	2.198793864E+02	-5.833406624E+02
16.5500	2.460046250E-02	-3.669801101E-01	2.010483290E+02	-5.392959880E+02
16.6000	1.841181563E-02	-3.805957706E-01	1.849216294E+02	-4.972953203E+02
16.6500	1.047936347E-02	-3.965249554E-01	1.712352915E+02	-4.553749027E+02
16.7000	1.127126047E-04	-4.152257354E-01	1.597730027E+02	-4.140813334E+02
16.7500	-1.371921655E-02	-4.372366675E-01	1.503598050E+02	-3.733250863E+02
16.8000	-3.259019158E-02	-4.631425761E-01	1.428570252E+02	-3.330129104E+02

$$\Omega = 2 \ln(2h/a) = 20$$

$k_0 h$	Re $\{I_a(k_0 h)/hE^{inc}\}$	Im $\{I_a(k_0 h)/hE^{inc}\}$	Re $\{Z_a(k_0 h)\}$	Im $\{Z_a(k_0 h)\}$
16.8500	-5.804994411F-02	-4.934471620F-01	1.371582358E+02	-2.930494439E+02
16.9000	-2.665974414F-02	-5.282011741F-01	1.331264744E+02	-2.533322603E+02
16.9500	-1.517453913E-01	-5.660111749F-01	1.308915633E+02	-2.137825536E+02
17.0000	-2.332019897E-01	-6.015716035F-01	1.302491812E+02	-1.742856272E+02
17.0500	-3.515795895E-01	-6.202613889E-01	1.312599110E+02	-1.347511832E+02
17.1000	-5.096232784E-01	-5.902239439E-01	1.339492651E+02	-9.508369222E+01
17.1500	-6.749716706E-01	-4.670810946E-01	1.383693228E+02	-5.518877690E+01
17.2000	-7.633452643E-01	-2.474183252E-01	1.445951074E+02	-1.497378365E+01
17.2500	-7.176675925E-01	-2.014246274E-02	1.527366099E+02	2.565134438E+01
17.3000	-5.880757150E-01	1.256971754E-01	1.629317083E+02	6.677276091E+01
17.3500	-4.514147509F-01	1.866552703E-01	1.753548985E+02	1.084707764E+02
17.4000	-3.409474448E-01	1.976879927E-01	1.902210267E+02	1.508170233E+02
17.4500	-2.592027044E-01	1.862779422E-01	2.077910904E+02	1.938703225E+02
17.5000	-1.998837234E-01	1.670796892E-01	2.283792501E+02	2.376712414E+02
17.5500	-1.565320912E-01	1.461756013E-01	2.522610900E+02	2.822332326E+02
17.6000	-1.242903555E-01	1.262409264E-01	2.801831357E+02	3.275319258E+02
17.6500	-9.983267288E-02	1.081730650E-01	3.123724816E+02	3.734888694E+02
17.7000	-8.091498006E-02	9.216072972E-02	3.495530348E+02	4.199496083E+02
17.7500	-6.601070451E-02	7.810980525E-02	3.924463935E+02	4.666534695E+02
17.8000	-5.407299549E-02	6.592785226E-02	4.418204463E+02	5.131923361E+02
17.8500	-4.436782253E-02	5.510243343E-02	4.988372603E+02	5.589551615E+02
17.9000	-3.637217463E-02	4.572264171E-02	5.642454471E+02	6.029545290E+02
17.9500	-2.970523953E-02	3.754009514E-02	6.395504532E+02	6.442319302E+02
18.0000	-2.408797793E-02	2.937107142E-02	7.255989637E+02	6.807406931E+02
18.0500	-1.930770461E-02	2.409505475E-02	8.233708817E+02	7.102325756E+02
18.1000	-1.520428269E-02	1.860294211E-02	9.338679304E+02	7.295563125E+02
18.1500	-1.165247045E-02	1.379263186E-02	1.057006294E+03	7.347321625E+02
18.2000	-8.559017846E-03	9.610316192E-03	1.191736599E+03	7.209242901E+02
18.2500	-5.840795611E-03	5.969133223E-03	1.335254144E+03	6.826860250E+02
18.3000	-3.439988497E-03	2.921631725E-03	1.482373051E+03	6.145767463E+02
18.3500	-1.305465926E-03	1.223177621E-04	1.625102373E+03	5.122614715E+02