Reto F3001C

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Waveguide selector:

```
Selected waveguide:
   Size: 930x235
   Mode: 9
```

Waveguide Summary:

```
Waveguide: 930x930, mode: 9
```

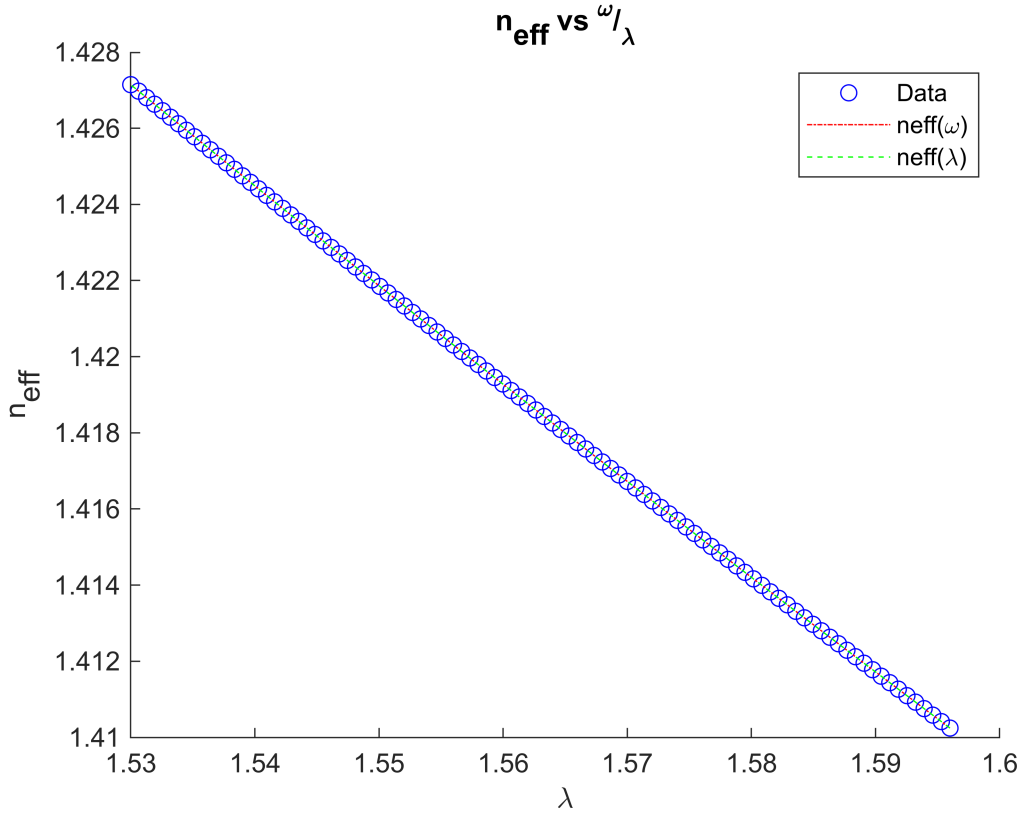
Fundamental Mode Data (1596nm):

Ranges:

```
Lambda Ranges: 1.53-1.596
Omega Ranges: 1181049869.7706-1231997119.0548
```

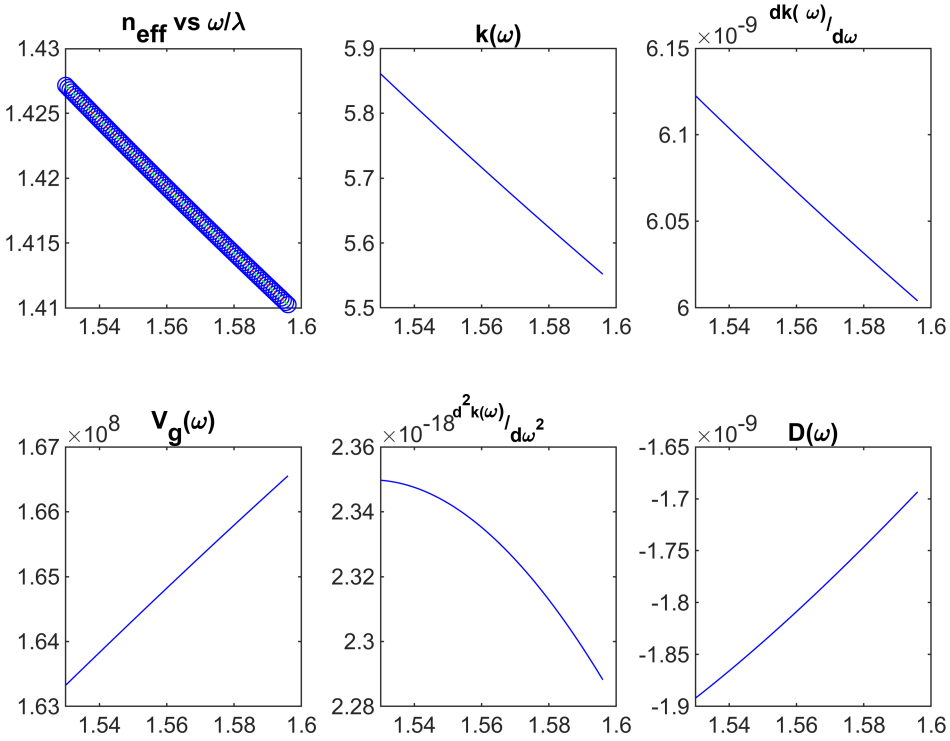
Neff vs ω/λ

```
Function neff(λ):
0.000030705937210545883396094896*l.^30-0.00023850177184504096428510622 2*l.^29+0.000498347405939057221113674956*l.^28
Function neff(ω)
8.5020267057246351809289327881 10e-273*w.^30-1.173671773238715913640420574474e-262*w.^29+4.615075111166472813834691 29
```



Subfunctions (k, dw, Vg, d2w, D)

```
Function k(ω):
w.*(8.5020267057246351809289327881l0e-273*w.^30-1.173671773238715913640420574474e-262*w.^29+4.615075111166472813834
Function dk(ω)/dω:
(8.5020267057246351809289327881l0e-273*w.^30*(31)-1.173671773238715913640420574474e-262*w.^29*(30)+4.61507511116647
Function Vg(ω):
(3*10^8)./(8.5020267057246351809289327881l0e-273*w.^30*(31)-1.173671773238715913640420574474e-262*w.^29*(30)+4.61507
Function d2k(ω)/dω:
(8.5020267057246351809289327881l0e-273*w.^29*(930)-1.173671773238715913640420574474e-262*w.^28*(870)+4.615075111166
Function D(ω):
-(w.^2/(2*pi*3*10^8)).*((8.5020267057246351809289327881l0e-273*w.^29*(930)-1.173671773238715913640420574474e-262*w.
```



Superior Mode Data (530nm):

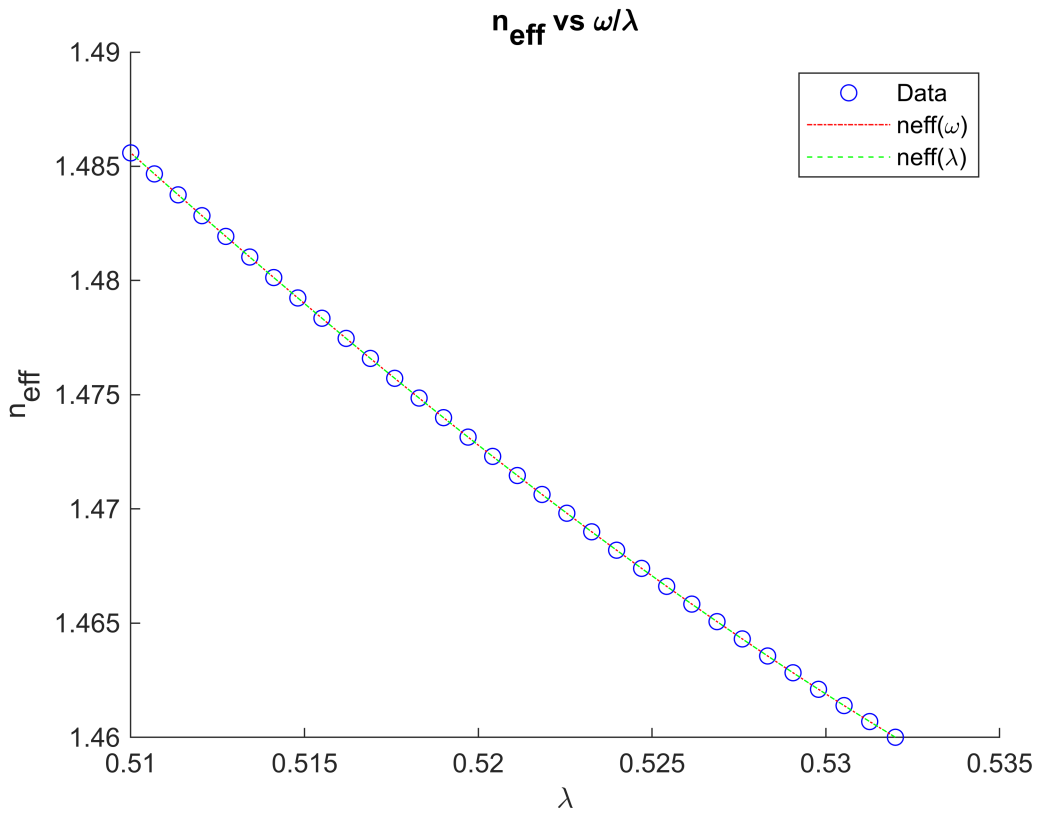
Ranges:

```
Lambda Ranges: 0.51-0.532
Omega Ranges: 3543149609.3118-3695991357.1645
```

Neff vs ω/λ

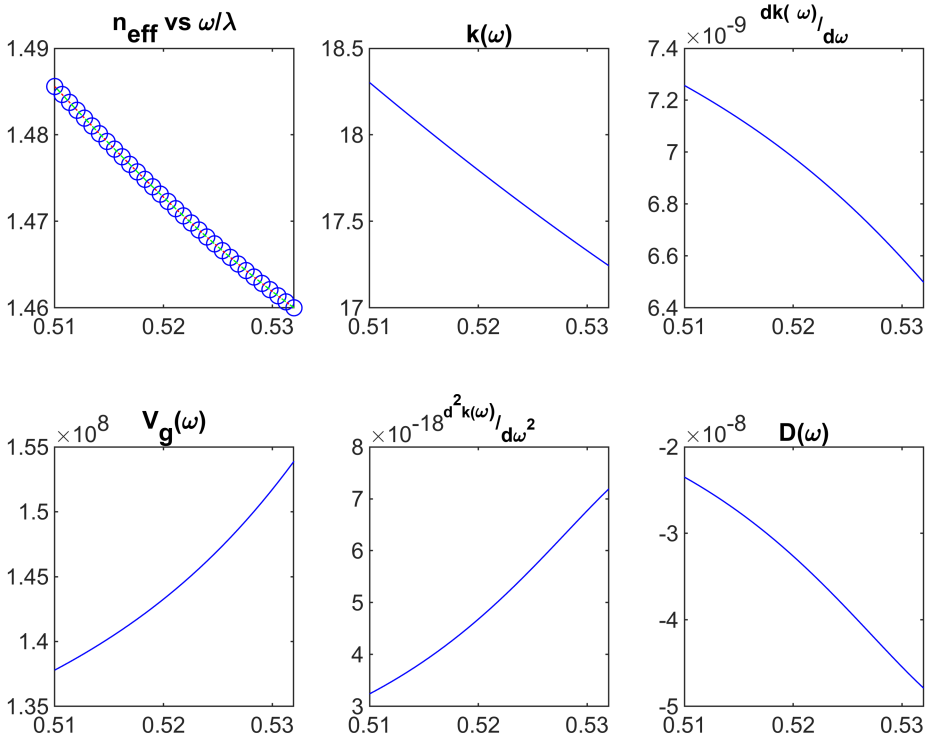
```
Function neff(λ):
-1306649727839.864013671875000000000000000000*l.^30+7069181280086.175781250000000000000000000000*l.^29-111678798793
Function neff(ω):
```

```
4.015345414268300587716790703345e-283*w.^30-3.3276957102416640411534337730 91e-273*w.^29+3.91157915046764427573847435
```



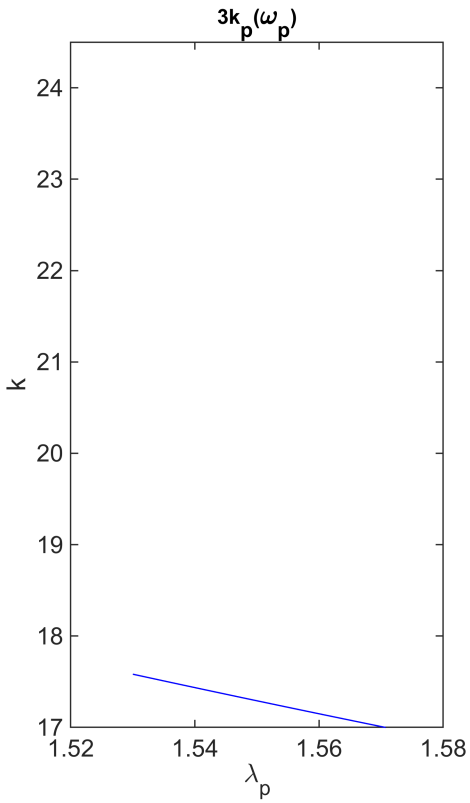
Subfunctions (k, dw, Vg, d2w, D)

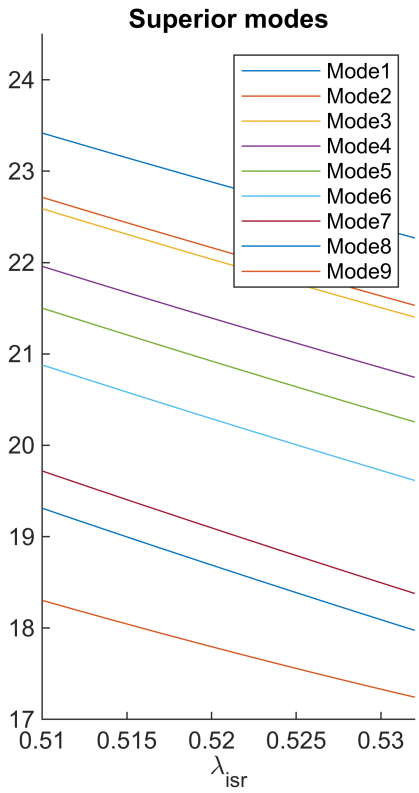
```
Function k(ω):
w.*(4.015345414268300587716790703345e-283*w.^30-3.3276957102416640411534337730 91e-273*w.^29+3.91157915046764427573847
Function dk(ω)/dω:
(4.015345414268300587716790703345e-283*w.^30*(31)-3.3276957102416640411534337730 91e-273*w.^29*(30)+3.91157915046764
Function Vg(ω):
(3*10^8)./(4.015345414268300587716790703345e-283*w.^30*(31)-3.3276957102416640411534337730 91e-273*w.^29*(30)+3.91157
Function d2k(ω)/dω2:
(4.015345414268300587716790703345e-283*w.^29*(930)-3.3276957102416640411534337730 91e-273*w.^28*(870)+3.91157915046760
Function D(ω):
-(w.^2/(2*pi*3*10^8)).*((4.015345414268300587716790703345e-283*w.^29*(930)-3.3276957102416640411534337730 91e-273*w.^
```



Load Waveguide Simple:

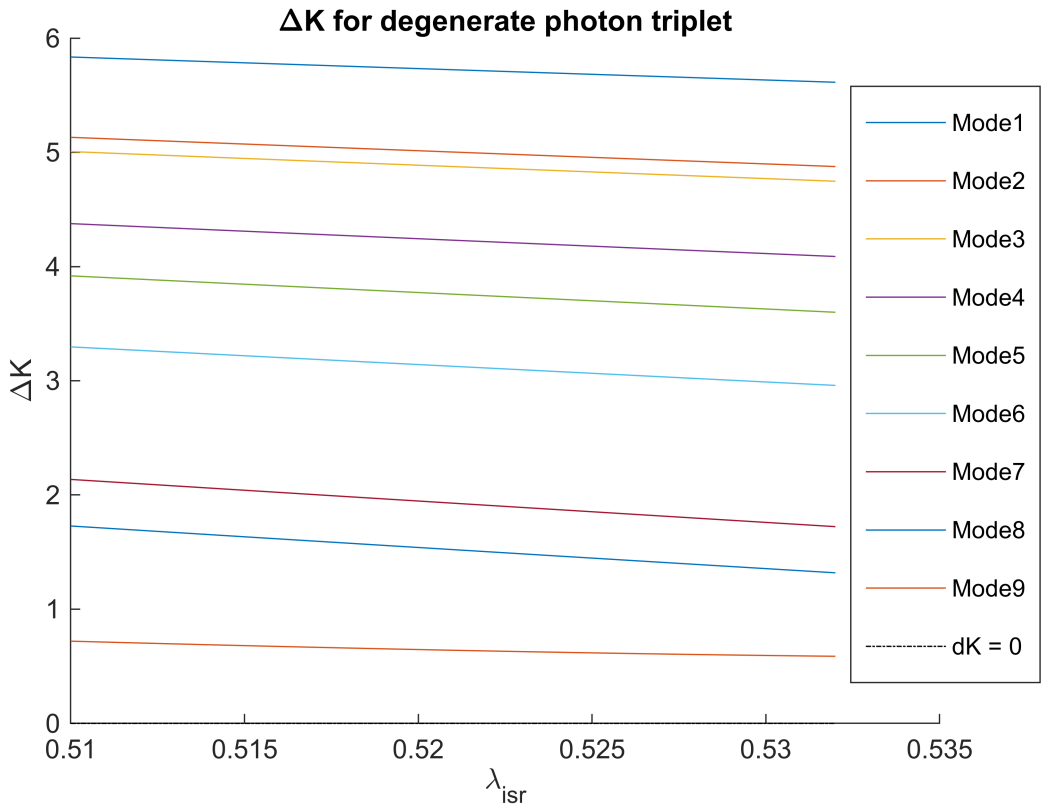
K's comparing





Find degenerate photon that allow momentum and energy conservation

```
Ningun modo con dK=0
```



Phase Matching

```
Pump wavelength: 0.51-0.532

Photon wavelength: 1.53-1.596
```

Waveguide 930x235 with λ_i = 1.53