How to create the necessary z matrix

z is just a simple 2D matrix with dim 1 (columns) becoming the horizontal spectra in the stacked plot. The 2nd dim. specifies the number of rows in the stacked plot.

In the example below, I create a two component spectrum whose amplitudes change along the 2nd dimension.
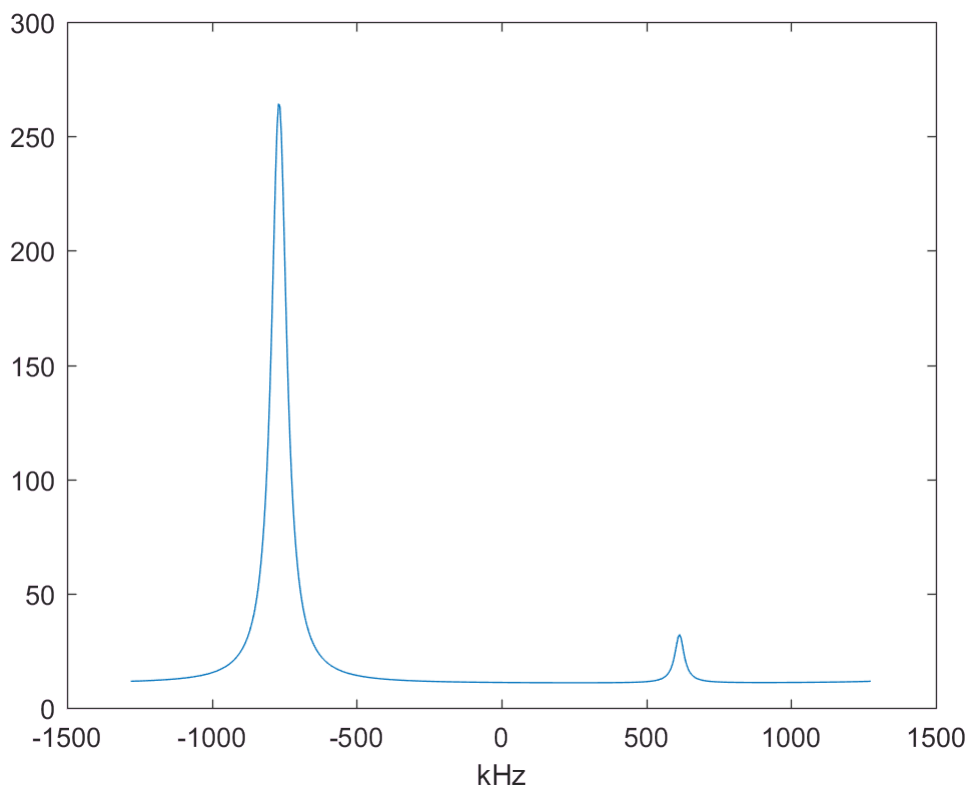
Note: em, fid, ft are functions I have created.

If you have individual spectra as variables, a 2D array could be created in a similar fashion using a loop structure. If you have a 2D array but the spectra are along the 2nd dimension, then simply transpose the data.

```
a=zeros(512,20);          % preallocate 2D array
for n=1:20                % now create 20 FIDs
a(:,n)=n*em(fid(2400,0,512),150)+(21-n)*em(fid(-3000,0,512),250);
end
```

Fourier transform data and plot first spectrum

```
b=ft(a);
freq=((1:512)-257)*5;
plot(freq,real(b(:,1)))
xlabel('kHz')
```



```
splot(freq,1:20,real(b))
xlabel('kHz')
```