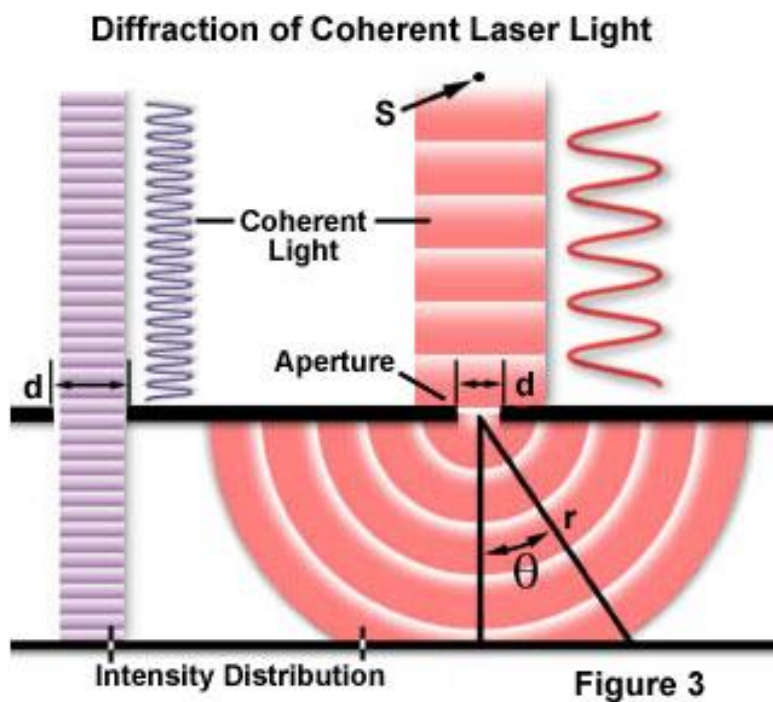
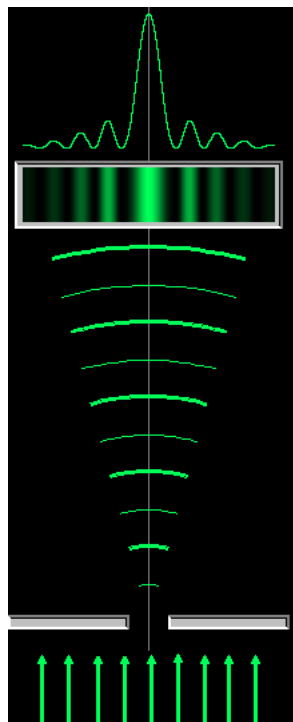


DIFRAÇÃO

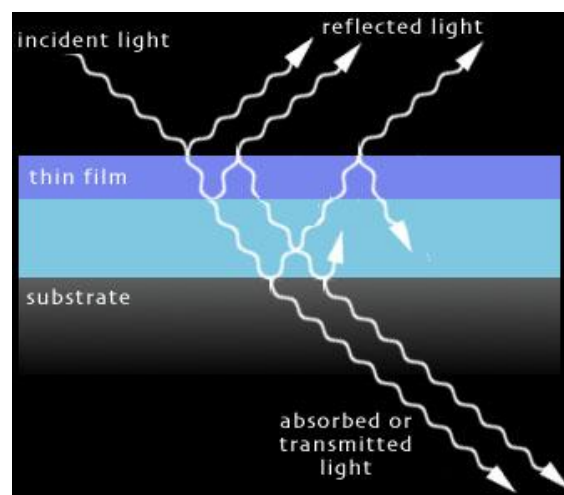
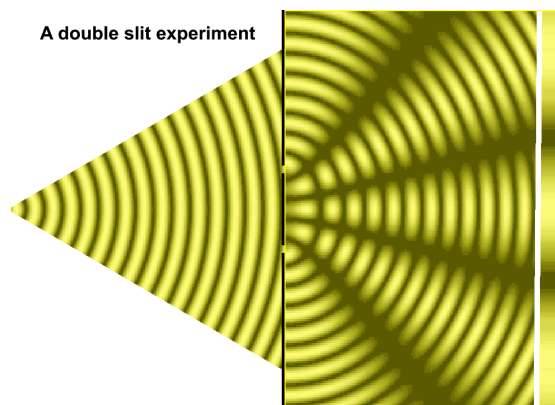
<https://en.wikipedia.org/wiki/Diffraction>

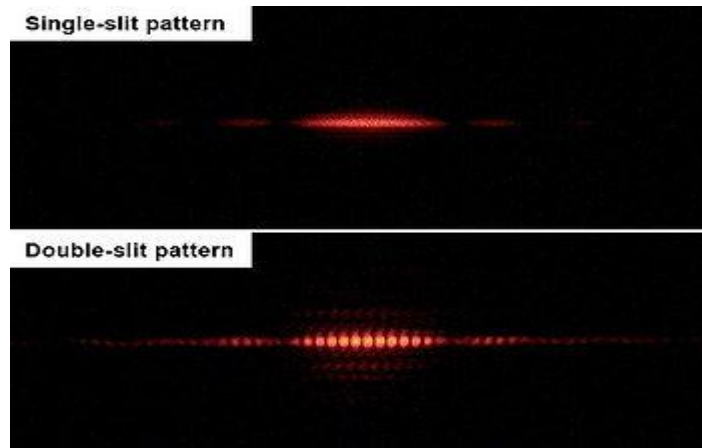


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INTERFERÊNCIA

https://en.wikipedia.org/wiki/Double-slit_experiment





DUALIDADE ONDA-PARTÍCULA

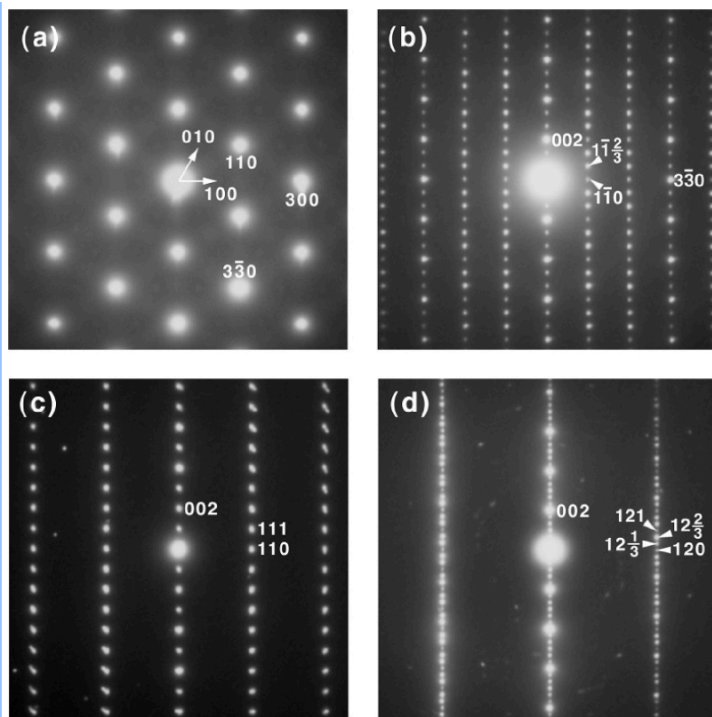
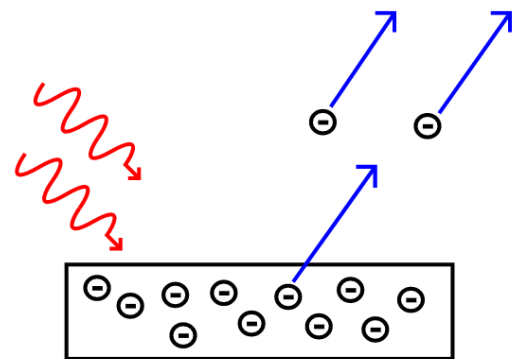
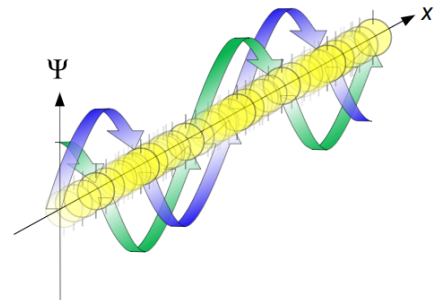


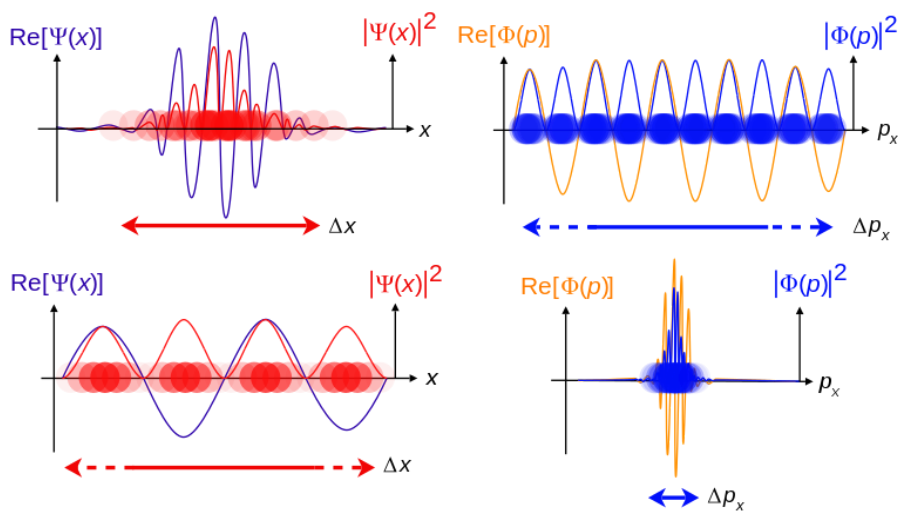
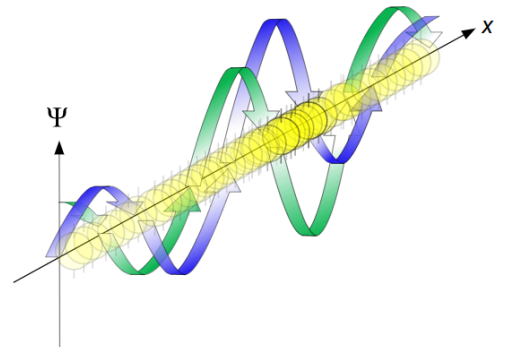
Figure 1: Sets of electron diffraction patterns of $\text{YMn}_{0.75}\text{Ti}_{0.25}\text{O}_3$ showing the (a) [001], (b) [110], (c) [110], and (d) [540] zone-axis.

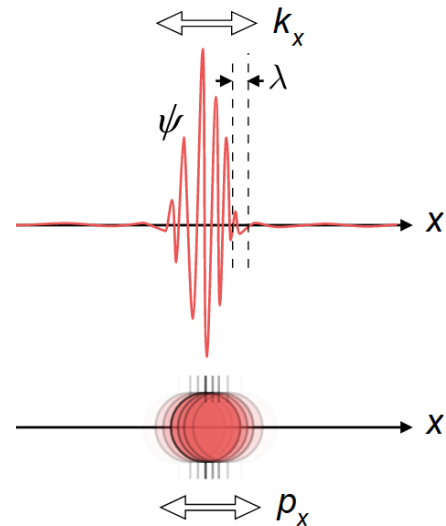
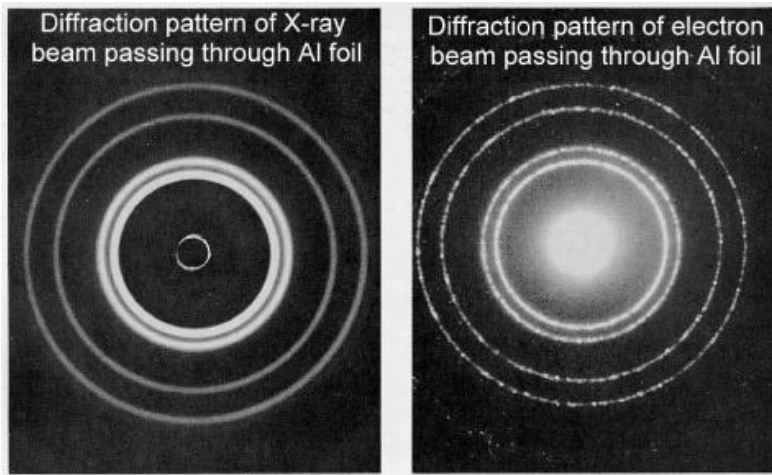


$$\Psi = Ae^{i(px - \omega t)}$$



$$\Psi = \sum_n A_n e^{i(p_n x - \omega_n t)}$$





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LEI DE BRAGG

https://en.wikipedia.org/wiki/Bragg%27s_law

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SÉRIE DE FOURIER

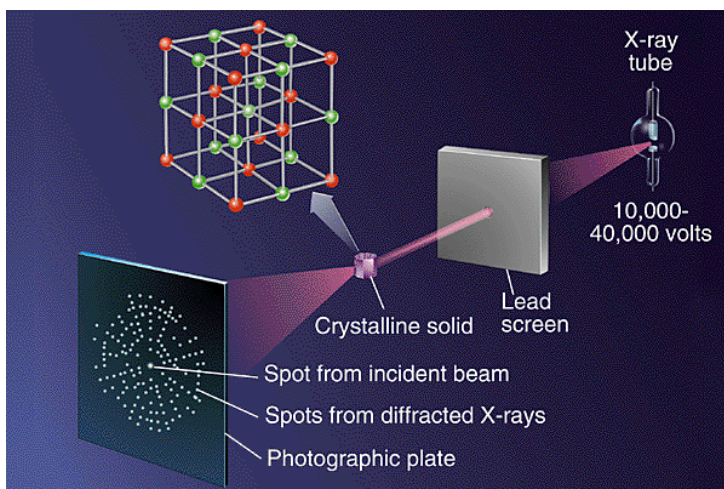
https://en.wikipedia.org/wiki/Fourier_series

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TÉCNICAS DE DIFRAÇÃO

https://en.wikipedia.org/wiki/Electron_diffraction

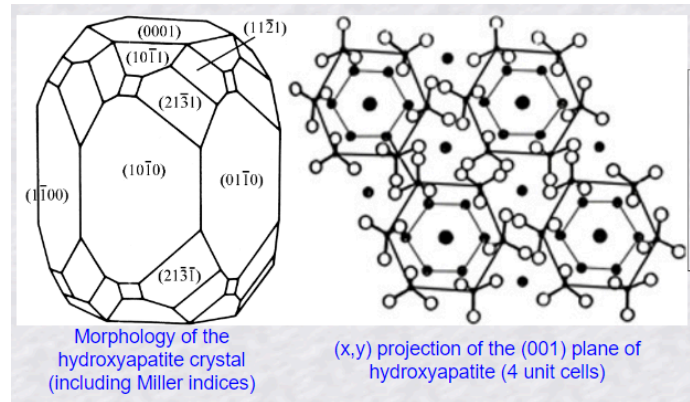
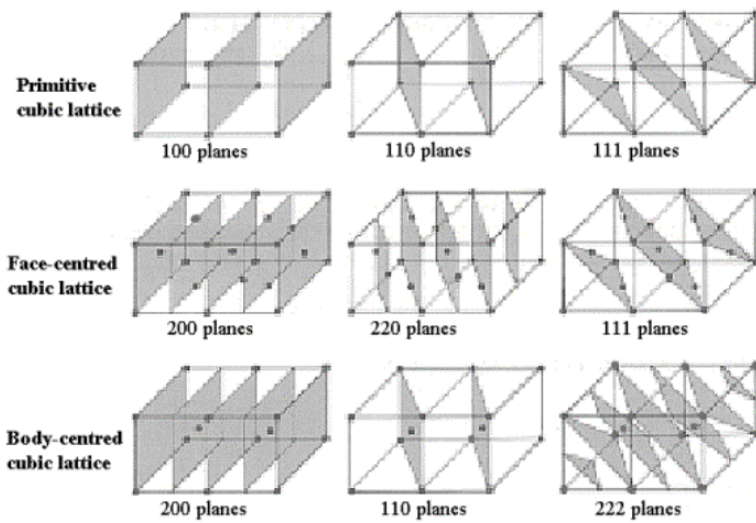
https://en.wikipedia.org/wiki/Neutron_diffraction



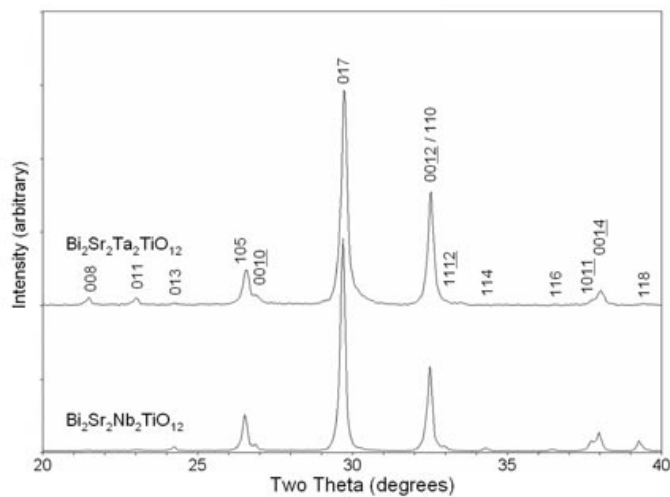
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ÍNDICES DE MILLER

https://en.wikipedia.org/wiki/Miller_index



Miller indices for three types of cubic lattices.



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REDE RECÍPROCA

https://en.wikipedia.org/wiki/Reciprocal_lattice

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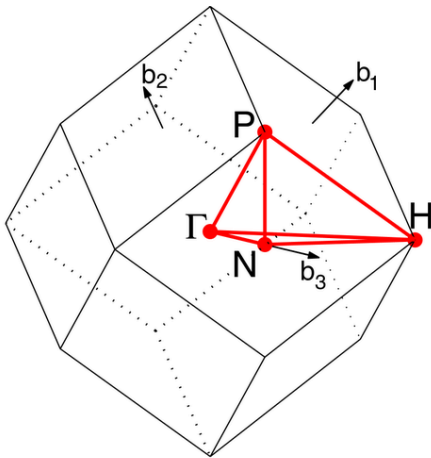
FATOR DE ESTRUTURA

https://en.wikipedia.org/wiki/Structure_factor

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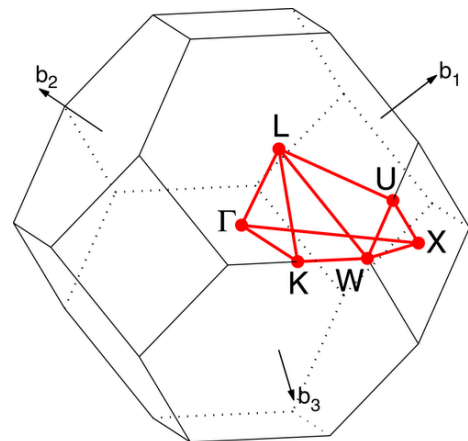
1o ZONA DE BRILLOUIN

https://en.wikipedia.org/wiki/Brillouin_zone



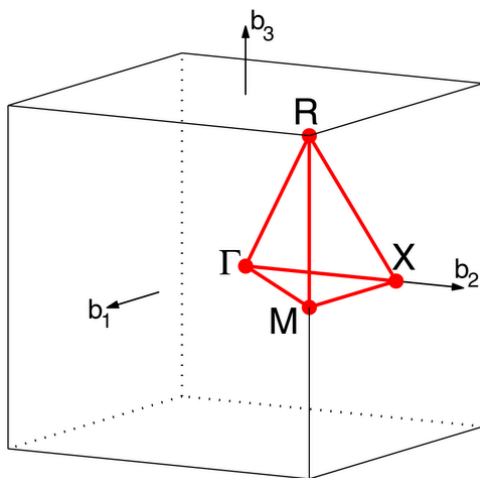
BCC path: Γ -H-N- Γ -P-H|P-N

[Setyawan & Curtarolo, DOI: 10.1016/j.commatsci.2010.05.010]



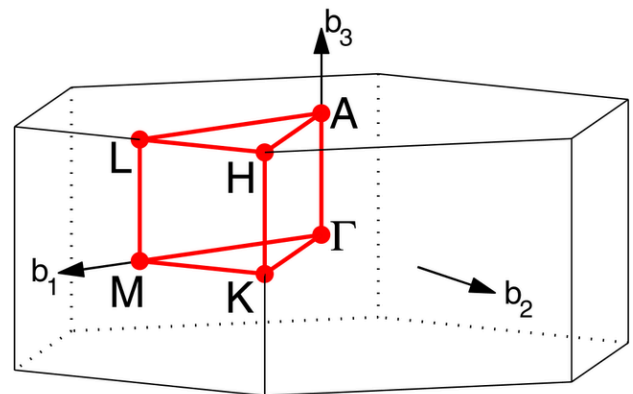
FCC path: Γ -X-W-K- Γ -L-U-W-L-K|U-X

[Setyawan & Curtarolo, DOI: 10.1016/j.commatsci.2010.05.010]



CUB path: Γ -X-M- Γ -R-X|M-R

[Setyawan & Curtarolo, DOI: 10.1016/j.commatsci.2010.05.010]



HEX path: Γ -M-K- Γ -A-L-H-A|L-M|K-H

[Setyawan & Curtarolo, DOI: 10.1016/j.commatsci.2010.05.010]