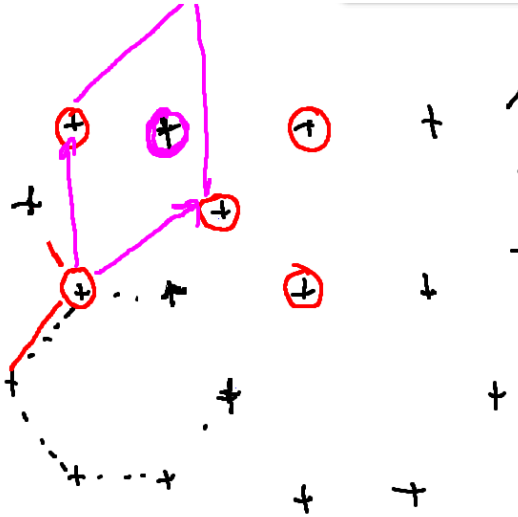
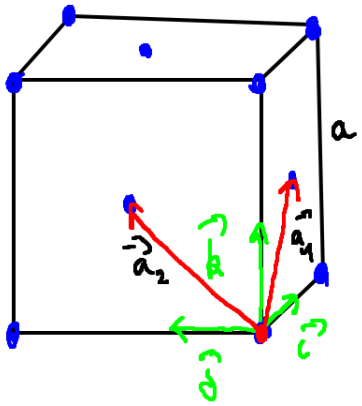


1 maille primitive
= 1 noeud
= 2 atomes



$$\vec{a}_1 = a\,\frac{\vec{i}+\vec{k}}{2}$$

$$\vec{a}_2 = a\,\frac{\vec{j}+\vec{k}}{2}$$

$$v = \left|\vec{a}_1 \cdot (\vec{a}_2 \wedge \vec{a}_3)\right|$$

$$S = \left|\vec{a}_2 \wedge \vec{a}_3\right|$$

$$l = \left|\vec{a}_1\right|$$

A.

$$f(\vec{r}+\vec{R}) = f(\vec{r})$$

$$f(\vec{r}) = \sum_{\vec{k}} c_{\vec{k}} e^{i\vec{k}\cdot\vec{r}} \qquad \vec{k} \to \vec{G}$$

$$c_k = \frac{1}{2\pi} \int_{\mathcal{V}} e^{-i\vec{k}\cdot\vec{r}} f(\vec{r})\, d\tau$$

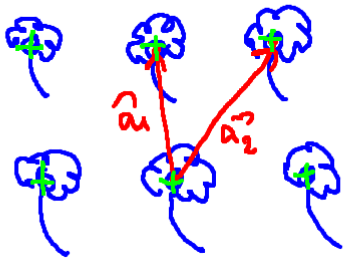
$\vec{k}$? $\vec{k} = \vec{G}$?

$$\vec{G} = h\vec{a}_1^* + k\vec{a}_2^* + l\vec{a}_3^* \qquad h,k,l \in \mathbb{Z}$$

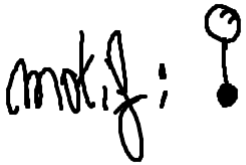
$\vec{a}_1, \vec{a}_2, \vec{a}_3 \in$ R.D.

$$\vec{a}_1^* = \frac{2\pi}{v}(\vec{a}_2 \wedge \vec{a}_3) \qquad v = |\vec{a}_1 \cdot (\vec{a}_2 \wedge \vec{a}_3)|$$

Papier peint



motif :



Réseau + motif