During rupture


Failed or broken cell

## After rupture

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | $\Delta \sigma_{\mathrm{D}}$ | $\Delta \sigma_{\mathrm{O}}$ | $\Delta \sigma_{\mathrm{D}}$ |  |
|  | $\Delta \sigma_{\mathrm{o}}$ | $\sigma=0$ | $\Delta \sigma_{\mathrm{o}}$ |  |
|  | $\Delta \sigma_{\mathrm{D}}$ | $\Delta \sigma_{\mathrm{O}}$ | $\Delta \sigma_{\mathrm{D}}$ |  |
|  |  |  |  |  |

> Diagonal neighbors $\Delta \sigma_{\mathrm{D}}=\sigma(\mathrm{i}, \mathrm{j})+\sigma_{\mathrm{D}}$

## Orthogonal neighbors <br> $$
\Delta \sigma_{o}=\sigma(i, j)+\sigma_{o}
$$

