Periodicity and surface flux closure of multipolar 180° Bloch walls

U. Hartmann

The recent calculation of the specific energy associated with Néel singularities in cubic crystals now permits an estimation of the periodicity and self-magnetostatic energy of multipolar 180° Bloch walls. Additionally, it is shown that the slight zigzagging of these walls in the near-surface region of a crystal causes a considerable reduction of the effective free surface charges by an extensive flux closure internal to the crystal.