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# Pt/Pd Core-shell nanoparticle
from ase.neighborlist import NeighborList
from ase.cluster import FaceCenteredCubic

atoms = FaceCenteredCubic('Pd',
    surfaces=[[1, 0, 0]], layers=[3])
nl = NeighborList([1.4] * len(atoms),
    self_interaction=False, bothways=True)
nl.build(atoms)
for x, atom in enumerate(atoms):
    indices, offsets = nl.get_neighbors(x)
    if len(indices) < 12:
        atom.symbol = 'Pt'
```