

```
for (blocki = 0; blocki < patch1_size; blocki += BLOCK_SIZE) {  
    load one patch 1 atom into register;  
    for (blockj = 0; blockj < patch2_size; blockj += SHARED_SIZE) {  
        __syncthreads();  
        load patch 2 atoms into shared memory;  
        __syncthreads();  
        USE_PAIRLIST;  
        if (r2 < cutoff) calculate force on patch 1 atom;  
    }  
    write force result back to global memory;  
    GENERATE_PAIRLIST;  
}
```