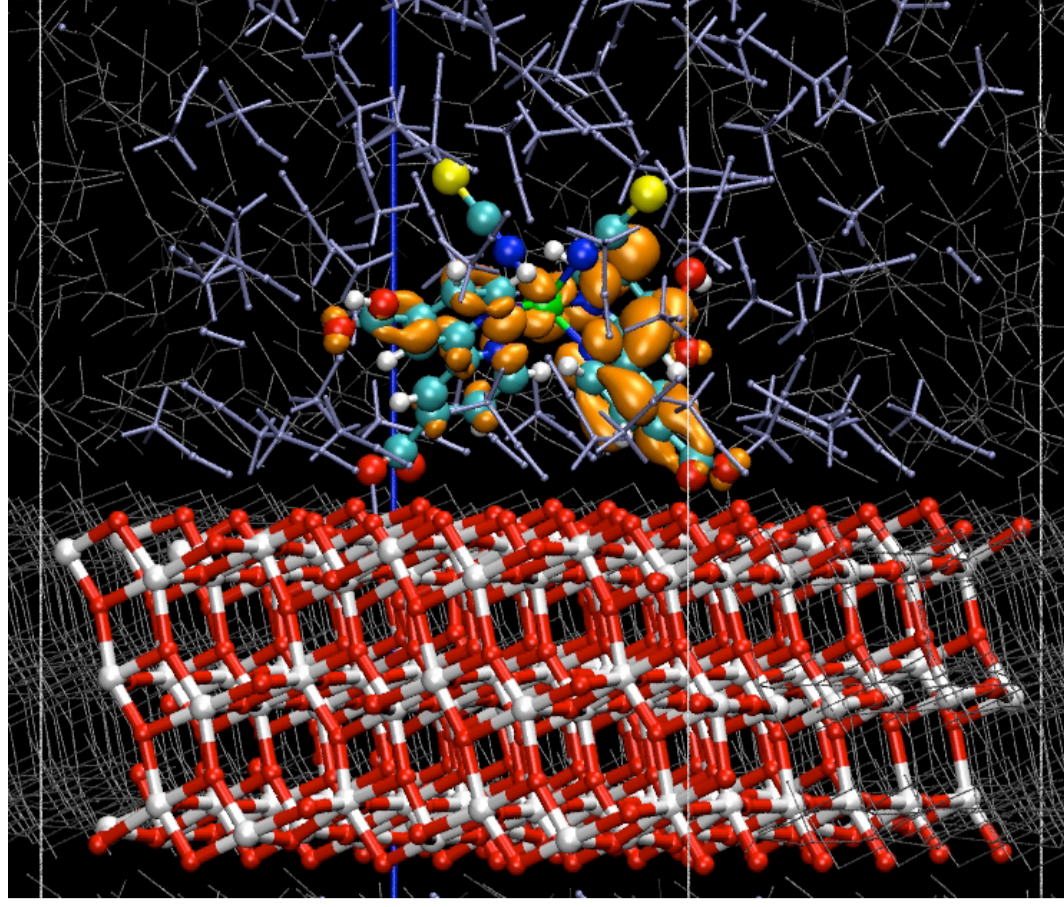


## High Performance Computing



• CP2K:  
Materials Science on 10,000s of CPU cores (image J. VandeVondele, Dye-Sensitised Solar Cell)

- Focus on users - UK academics and Scottish SMEs
- Scientific application optimisation on multicore HPC systems
- Training and outreach
- EU collaborative research



## Distributed Computing



- Developer for PrimeGrid, world's largest volunteer computing project
- 2 PFLOP/s (two million, billion operations per second) of computing power finding large prime numbers
- Maintainer of Mac OS X and Linux applications
- Combining interest in number theory with skills in HPC application development



## Goals for the HW Crucible

I believe science should...

- Inform
- Inspire
- Impact



If you agree I'd love to speak with you!

## About Me

• 2005: BSc. (Hons) 1st class Computer Science & Physics at Edinburgh University



• 2005-2008: Software Test Team Leader, IBM

• 2008-present: HPC Applications Consultant, EPCC, Edinburgh University

Interests: Space Exploration, Kayaking, Mac OS X game development

Email: [ibethune@epcc.ed.ac.uk](mailto:ibethune@epcc.ed.ac.uk)

