

Experienced FORTRAN programmer with plasma modelling experience**Company:** Quantemol Limited (www.quantemol.com)**Job Title:** Computational Physicist **Job Type:** Full-time, Permanent**Location:** UK (In-person meetings in London 2-4 times a month)**Job Description:**

We are seeking a highly skilled FORTRAN programmer with a strong background in plasma modelling to join our team. The successful candidate will be crucial in developing a new complex simulation code.

Responsibilities:

- Develop, maintain and optimise FORTRAN-based plasma codes
- Perform code validation and verification
- Work within a small team to ensure code modules successfully interface
- Document code development
- Analyse simulation outputs and provide insights
- Construct plasma chemistry sets and perform plasma simulations
- Participate in customer meetings and present at international conferences

Requirements:

- Strong proficiency in FORTRAN programming (Modern FORTRAN preferred)
- Extensive experience in plasma physics and modelling (low-temperature plasma physics a plus)
- In-depth knowledge of relevant numerical methods and algorithms (FVM, FEM preferred)
- Experience in a Linux environment
- Ability to work independently and manage your own time effectively
- Strong communication skills
- PhD in plasma physics or closely related field

Desirable:

- Experience using Git (BitBucket, GitHub)
- Knowledge of parallelisation (OpenMP, MPI)
- Knowledge and experience with code refactoring and qualification
- Experience in writing kinetic plasma models (Boltzmann solver, Monte Carlo simulations, PIC) codes from scratch
- Experience in using CFD+, COMSOL, or commercial plasma software
- Experience working with meshes and unstructured meshes
- Knowledge of low-pressure plasma physics, e.g. Semiconductor Plasma Processing (Etch, ALD, PECVD, etc.)
- In-depth knowledge of rarefied gas flows
- Knowledge of plasma chemistry design

What We Offer:

- Competitive salary - **TBD**
- UK Visa sponsorship, if necessary
- Opportunities for professional development
- Stimulating work environment with a focus on research and innovation
- The ability to make a significant impact and help shape a small company

To apply, please send your CV outlining your experience and qualifications to recruitment@quantemol.com