



JOC-VN-175

Position title: Responsible Officer for Bolometer Diagnostics

Background

The JET Plasma Boundary Group is responsible for a technically diverse and innovative set of edge plasma and surface diagnostics:

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|------------------------|-----------------------------|--------------------------|
| Plasma viewing systems | Fixed Langmuir probes | Divertor pressure gauges |
| Visible spectroscopy | Reciprocating probes | Surface analysis |
| Infra-red imaging | Disruption mitigation valve | Long term samples |
| Thermocouples | Bolometer systems | Quartz micro-balances |
| Visible imaging | Sub-divertor gas analysis | Tile profilers |

A number of new systems were installed in 2004/2005 as part of the JET-EP1 enhancement programme including the bolometer systems KB5V, KB5H and the KB3 refurbishment. The bolometer systems measure the radiated power distribution in the plasma and therefore are very important for developing good operational scenarios and interpreting the physics of JET discharges run with the ITER-like Wall.

Main responsibilities

The scope may be adjusted depending on the specific skills and experience of the appointee but our target is to find a candidate capable of taking on the following responsibilities:

1. Operation and maintenance of the JET bolometer systems to ensure that they are available as required by the JET programme.
2. Calibration and maintaining the quality of the inter-shot data analysis.
3. High level analysis of specific data e.g. tomographic inversion of specific time slices

Special Features

Although the primary responsibility is with the bolometer systems, the Plasma Boundary Group functions as a team and the secondee may be asked to assist with operation and/or maintenance of other systems for which the group is responsible. This could include activities such as helping to develop or apply high level analysis methods to other diagnostic data.

Desirable qualifications, aptitudes and experience

1. The ideal candidate will have practical experience of a range of technically comparable systems and of the type of data analysis applicable to the bolometer system.
2. Ability to work within a team and in a regulated environment is essential.
3. Fluency in Fortran and IDL, and familiarity with the UNIX environment, would be an advantage.

Notes

1. Participation in the scientific programme is encouraged, through the sending Association.
2. Publications are encouraged, both through the sending Association, and, for some instrumental aspects, through the Operator.
3. There will be no direct staff or financial responsibility.
4. Work on hardware systems must comply with the CCFE safe system of work.

General Contact: Klaus-Dieter Zastrow (Klaus-Dieter.Zastrow@ccfe.ac.uk), JET Diagnostics Unit Head

Technical contact: Guy Matthews (Guy.Matthews@ccfe.ac.uk), Plasma Boundary Group Leader.

Applications should be made through the Head of Association to the JOC Senior Manager, Tim Jones by 31st January 2013. Later applications will be considered if the post remains unfilled.

The post will become vacant in the very near future and so an early start state is desirable.

Note that candidates who are not EU nationals will need to obtain a visa to work in the UK. The JET Operator can provide advice on the issues involved and candidates are recommended to investigate before interview