We are looking for 2 Research Fellows (RF) to participate in an exciting multi-disciplinary research program in the field of metallic alloys at the School of Materials Science and Engineering (http://www.mse.ntu.edu.sg/) at NTU, Singapore.

Position 1

A candidate with strong expertise in Transmission Electron Microscopy (TEM) of metallic alloys, ideally with skills in in situ based MEMS holder and FIB preparation of TEM lamella for such in situ experiments. The RF will be involved in investigating the mechanisms and dynamics of defect propagation in the complex microstructure of TiAl alloys. In particular, the interplay between the nanometer scale lamellar structure within grains in high temperature strained specimen. The successful candidate should have technical expertise in TEM, including FIB TEM lamella preparation, BF, DF, SAED and related data analysis.

Position 2

We are looking for a candidate with strong and high quality expertise in metallic alloys, ideally with skills in the synthesis, characterization and mechanical property evaluation of titanium base high temperature alloys. The RF will be involved in the development of gamma based TiAl alloys. Modeling/simulation/AI/ML experience is desirable.

Job qualifications

a. PhD in Materials Science or Physics.

The successful candidate will be proactive, productive, a team player and part of a dynamic interdisciplinary research team that is broadly tackling high temperature alloys. He/she will closely collaborate with high temperature alloy synthesis, mechanical characterization, simulation, AI/ML scientists within the frame of a large research program devoted to structural alloys.

Salary are internationally competitive at the post-doctoral level, and commensurate with experience. The program will have access to top-notch TEM facilities. The research atmosphere at NTU and Singapore in general is diverse, vibrant, and well-funded. The School of MSE at NTU is consistently ranked in the top 5 worldwide. The research may involve a substantial level of international collaborations with world-leading academic institutions.

Suitably qualified applicants are invited to send in their application with detailed resume and sample research publications by email to:

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