

**Institute Of Physics, Bhubaneswar**

**APPLICATIONS INVITED FOR Two Project (NALCO) Positions**

**(a) Research Associate - One**

**(b) Project Assistant - One**

Applications are invited for the above two positions in a NALCO sponsored project entitled "Fabrication of High Pure Alumina and its uses as Antireflection Coatings in Solar Cells" under the supervision of Prof. P. V. Satyam, Institute of Physics, Bhubaneswar - 751005, India.[For more information of the PI, please visit Prof. P. V. Satyams home page: [www.iopb.res.in/~satyam](http://www.iopb.res.in/~satyam)]

Essential & Desirable Qualification:

(a) Research Associate: The applicant must have obtained Ph.D. in Physics/Materials Science/Materials Engineering/nanotechnology from a recognized University and expertise in thin film preparation and electron microscopy (HRTEM, SEM). A post-doctoral experience of 1 or 2 years in applied materials would be added advantage.

(b) Project Assistant: The applicant must have First Class MSc in Physics/ Material Science/ nanotechnology/ Engineering Physics from a recognized University. The candidates who have qualified CSIR/UGC NET/GATE/JEST will be preferred. Candidates having prior research experience of more than two years in Industry/Academia will also be preferred. It is desirable that the candidate has experience in some of the following areas: Thin film preparation, molecular beam epitaxy, Electron microscopy, etc.

Duration: Initial appointment of the candidate will be for 1 year, extendable on annual basis depending on the performance of the candidate, up to two years or upon termination of the project, whichever occurs earlier. The project position is co-terminus with the above project.

Fellowship: (a) Research Associate: Rs 40,000 per month + HRA (for Ph.D. with 3 years or more experience), Rs 38,000/= (Ph.D with a minimum of 1 year experience) and Rs 36,000/= (Ph.D. with no experience as post-doctoral fellow)

(b) Project Assistant: Rs 25,000/= + HRA with no experience or Rs 28,000/= with 2 years or more experience

**Project Description:** The primary aim of the project is to make thin films of Al<sub>2</sub>O<sub>3</sub> using various methods - physical and chemical and also try to make single crystal Alumina (Sapphire) using epitaxy methods. The high pure alumina films would be used for anti-reflection purposes on solar cells to enhance the efficiency.

Nature of Study: making graphene, introduction of defects, measuring and understanding structural, chemical and transport properties.

Start date of the Project: 17 December 2018 (expected - will be informed to the selected candidate if the dates are different)

End date of the Project: 16 December 2020 (duration: 2 years from the start of the date).

Applications with complete bio-data (with details of qualification i.e. examination passed, year, division, percentage of marks from 10th Board onwards, and photocopies of mark sheets/ testimonials/ certificates) along with MSc (for project assistant) and Ph.D. (for research associate) certificates should be sent by email to [satyam@iopb.res.in](mailto:satyam@iopb.res.in) or [pvsatyam22@gmail.com](mailto:pvsatyam22@gmail.com). Along with biodata, applicant should also send a Note on Experience where he/she can provide information about any desirable/preferable experience for this project that they may have. At least reference letter is required to be enclosed or sent to Prof. P. V. Satyam (email: [satyam@iopb.res.in](mailto:satyam@iopb.res.in) and [pvsatyam22@gmail.com](mailto:pvsatyam22@gmail.com)), before the last date.

**The Last Date of Receipt of complete application and all recommendation letters: 11 Dec. 2018.**

**Date of Interviews (tentative): 14 December 2018**

**Results declared: 14 December 2018**

Shortlisted candidates will be intimated by email and called for presentation-interview at the Institute of Physics, Bhubaneswar or by skype. No TA/DA will be provided for coming for presentation and interview.

Accommodation inside the campus is subjective to the availability. HRA would be given at applicable rate for the candidates staying outside the campus.

General Information about IOP (<http://www.iopb.res.in>).