

CURRICULUM VITAE

I.SHYJUMON

Institute Of Physics, EMA University of Greifswald
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Objective:

To involve the research in the field of cluster physics, condensed matter physics, surface science, nanosystem and plasma physics.

Areas Of Interest:

Surface coating and analysis using ion clusters, cluster analysis and high temperature plasma fusion researches, Characterization of thin films, Microwave Propagation, Properties and Characterisation of Dielectric Resonators.

Educational details:

- **Ph.D.thesis**(10/2001-10/2005) University of Greifswald, Germany, Subject: "Production, Deposition and Characterization of Metal Nanoclusters Using a Gas Aggregation Source"
- **Masters degree**(1998-2000) University of Kerala, India(Score:First class with distinction), Project: "Investigation on solar radio flux & its relation to sunspot number"
- **Bachelors degree**(1995-1998) University of Kerala, India(Score:First class with distinction), Project: "Astable Multivibrator - with the help of LED"
- **High school**(1993) J.M. High school Sasthamcotta, India(Score:First class with distinction)

Postgraduate level courses:

Modern optics; Electromagnetic; Basic Electronics; Mathematical Physics and Analysis; Quantum Mechanics; Solid State Physics; Microprocessors; Spectroscopy and Nuclear Physics.

Projects:

- "Investigation on solar radio flux & its relation to sunspot number". MSc (2000) project, supervised by Dr. S.R. Prabhakaran Nayar, Professor, Department of physics, University of Kerala, kerala, India.
- "Astable Multivibrator - with the help of LED". BSc (1998) project, supervised by Sri: Unnikrishnan Nair, lecturer, D.B. college sasthancottah, kerala, India.

Computer proficiency:

- **Operating Systems** Dos, Windows, Linux
- **Technical Applications** FIDELITY, IE3D, PUFF, MATLAB, TOPOMETRIX, ORIGIN, MATHEMATICA
- **Languages** C, Basic

Research experience & skills:

- 01/2001-09/2001 - Worked as a Research associate in the Department of Electronics, Cochin University of Science and Technology, Cochin, India under the Department of Science and Technology (DST), Government of India Project entitled "Preparation properties and Characterization of Ceramic dielectric resonators".

- 10/2001-until present - Scientific staff at the institute of Physics, University of Greifswald, Germany.

- Skilled in carrying out experiments in Nanocluster source (produc-

tion and deposition of clusters), highly skilled in characterisation techniques such as X-ray photoelectron spectroscopy (XPS), Atomic Force Microscopy (AFM), Gracing incidence x-ray reflectometry (GIXR), Gracing incidence x-ray diffractometry (GIXD), UV-Visible absorption spectroscopy.

Teaching:

Tutor (teaching/testing) for biochemistry students during practical laboratory works. "Experimental physik (Praktikum) für Biochemiker" at university of Greifswald.

Other:

- Member of "International Max Plank Research School on Bounded Plasmas", since 2001.

- Member of the German Physical Society (Deutsche Physikalische Gesellschaft), Membership No: 049554.

Personal Details:

Date of birth	March 12, 1978
Place of birth	Kampalady, Kerala, India
Sex	Male
Nationality	Indian
Passport number	B 2717971
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Language skills:

- English - Fluent
 - German -Fair
 - Malayalam - Mother tongue
 - Hindi - National language

List of Publications

Papers:

- (1). I. Shyjumon, M. Gopinadhan, C. A. Helm, B. M. Smirnov, R. Hippler, *Deposition of titanium/titanium oxide clusters produced by magnetron sputtering*, Thin soild films (submitted, dec:2004, resubmitted june 2005).
- (2). B. M. Smirnov, I. Shyjumon, R. Hippler, *Formation of clusters through generation of free atoms*, Physics scripta (submitted, feb: 2005, resubmitted june 2005.).
- (3). I. Shyjumon, M. Gopinadhan, O. Ivanova, M. Quass, H. Wulff, C. A. Helm, R. Hippler, *Structural deformation and lattice parameter studies of size selected silver clusters*, (submitted to European Physical Journal D September 2005)
- (4). D. Datta, S.R. Bhattacharyya, T.K. Chini, I. Shyjumon, R. Hippler, *SEM study of silver nanoclusters*, (ready to submit)

Posters:

- (1). I. Shyjumon, M. Gopinadhan, C. A. Helm, R. Hippler, *Deposition of Ti clusters on Si substrate using DC magnetron sputtering* DPG Conference 24-28 March 2003, Dresden, Germany, O 12.63 (page 401).
- (2). I. Shyjumon, R. Hippler, *Deposition of Ti & Ag clusters on Si substrate* Cluster conference, Clustertreffen 2003 (October 2003), Brand sterreich.
- (3). I. Shyjumon, M. Gopinadhan, M. Quass, H. Wulff, C. A. Helm, R. Hippler, *Deposition and characterization of Ag clusters on a Si(100) substrate - Cluster flattening* DPG Conference 4-9 March 2005, Berlin, Germany, DS 23.27, TU B (page. 181)

References

1. Dr. Rainer Hippler
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3. Dr. Boris M. Smirnov
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4. Dr. Satyaranjan Bhattacharya
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5. Dr. Harm Wulff
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EMA University of Greifswald
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