

CURRICULUM VITAE

Bikau Shukla

CONTACT ADDRESS: University of Southern California
854 W 36th Pl, RRB 111, Los Angeles, CA 90089-1191

Phone: (323) 717-0016

E-mail: bikaushu@usc.edu

WORK ELIGIBILITY: Permanent residency under both first and second preferences; **EB-1A** (Alien of Extraordinary Ability) and **EB-2** (National Interest Waiver).

PROFESSIONAL EXPERIENCE:

July 2010 - Present *Research Associate*, Aerospace and Mechanical Engineering, University of Southern California, Los Angeles, CA. (Supervisor: Prof. Fokion Egolfopoulos)

April 2008 – July 2010 *Post-doctoral Research Scientist*, National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan. (Supervisors: Prof. Sumio Iijima and Dr. Takeshi Saito)

October 2004 – March 2005 *Research Assistant*, The University of Tokyo, Japan.

April 2003 - September 2004 *Chair*, Department of Chemistry, Institute of Engineering, Tribhuvan University, Kathmandu, Nepal.

February 1993 - March 2003 *Assistant Professor of Chemistry*, Institute of Engineering, Tribhuvan University and St. Xavier's College, Kathmandu, Nepal.

EDUCATION

2008 **Ph.D.** (Chemical System Engineering), The University of Tokyo, Japan, (Supervisor: Prof. Mitsuo Koshi)
Major Accomplishments: Development of three novel reaction mechanisms, PAC (phenyl addition/cyclization), H-abstraction/vinyl radical addition (HAVA) and MAC (methyl addition/cyclization) for understanding the reaction engineering and growth of carbon nanomaterials.

1993 **M.S.** (Physical Chemistry): Tribhuvan University, Nepal.

1989 **B.S.** (Chemistry + Biology): B. R. Ambedkar Bihar University, India.

AWARDS:

- 2008 - 2010 Post-doctoral fellowship at National Institute of Advanced Industrial Science and Technology (AIST), Japan.
- 2004 – 2008 The Japanese Government MONBUKAGAKUSHO: MEXT scholarship (*This is the only government fellowship that is awarded to international students, hence it is highly competitive*).

PROFESSIONAL SERVICES:

- 2011 - Present *Editor/Editorial board member for*
Journal of Aeronautics & Aerospace Engineering,
Journal of Nanomedicine & Nanotechnology,
Journal of Analytical & Bioanalytical Techniques,
Journal of Chromatography & Separation Techniques
Journal of Chemical Engineering & Process Technology
- 2011 - 2012 *Reviewer of research proposals for*
French National Research Agency (ANR),
Romanian national council for research and development,
(UEFISCDI)
- 2008 - Present *Reviewer for international journals*
Journal of Physical Chemistry, Physical Chemistry
Chemical Physics, Material Science and Engineering B,
Carbon, Fullerenes, Nanotubes and Carbon Nanostructures,
Combustion and Flame, Combustion Science and
Technology, Journal of Analytical & Bioanalytical
Techniques, and Japanese Journal of Applied Physics.

WORKS RECOGNIZED:

- Inclusion of latest paper (*Phys. Chem. Chem. Phys.*, 2010, 12, 2427) in *NASA Astrophysics data*.
- Article published in *J. Phys. Chem. A* 2011 (2011, 115, 5284) was highlighted by the *Polish Chemical Magazine "CHEMIK"* on its web site.
- Article published in *Combustion and Flame* (2011, 158, 369) was distinguished as one of the **TOP 25 Hottest Articles**, in SciVerse Science Direct Hottest Articles archives.

- It was also highlighted by **VerticalNews** in its **Energy Weekly News** quoting that *this work has introduced a new direction in combustion research.*
- Invitation from Lap Lambert Academic Publishing AG & Co., Germany and Nova Science Publisher Inc., New York to publish my Ph.D. thesis and research results as a book.

PROFESSIONAL AFFILIATIONS:

The Combustion Institute,
Japan Applied Physics Society
Nepal Chemical Society

EXPERIMENTAL SKILLS:

Design, installation and operation of *very high vacuum* as well as *high pressure* systems, vacuum ultra-violet (VUV) single photon ionization (SPI) time-of-flight mass spectrometry (TOF-MS); direct injection pyrolytic synthesis chemical vapor deposition (DIPS-CVD), gas chromatography (GC) coupled to flame ionization detection (FID) and thermal conductivity detector (TCD), gas chromatography coupled to mass spectrometry (GC-MS), transient plasma (TP), resonance Raman, thermo gravimetric analysis-differential thermal analysis (TGA/DTA); scanning electron microscopy (SEM), transmission electron microscopy (TEM), atomic force microscopy (AFM), and optical absorption spectroscopies including both UV-Vis-NIR and photoluminescence.

LANGUAGES KNOWN: English, Nepali, Hindi, Japanese and Sanskrit

PUBLICATIONS: 18 Articles in international journals and participation in 18 international conferences organized in 9 countries.