

# Tai-Yu Chen

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## EDUCATION

### Bangladesh University of Engineering and Technology (BUET)

Dhaka, Bangladesh

M.Sc. in Glass and Ceramic Engineering; CGPA: 3.75/4.0

February 2020

Thesis: Role of Oxygen Vacancies on Ferromagnetism in Oxide Dilute Magnetic Semiconductors: ( $\text{CeO}_2/\text{TiO}_2$ )

B.Sc. in Materials and Metallurgical Engineering; CGPA: 3.54/4.0 (Last 4 semesters CGPA: 3.71/4.0)

February 2017

Thesis: Hydrothermal Synthesis and Characterization of Pure and Doped  $\text{BiVO}_4$  NPs

## RESEARCH INTERESTS

Emerging phenomena in 2D Materials, Complex Oxides and Organic-Inorganic Heterostructures; Advanced Spectroscopy Techniques, Synthesis, Growth & Fabrication of Flexible and Wearable Nanoelectronics Devices.

## AWARDS AND SCHOLARSHIPS

- Best Oral Presentation, 2<sup>nd</sup> Int. Conf. on Physics for Sustainable Development and Technology, 2017, Bangladesh.
- Dean's List Award, Faculty of Engineering for achieving  $CGPA > 3.75$  in Junior Year of B.Sc., 2016
- University Merit Scholarship for outstanding academic results in junior year of B.Sc., 2016
- 19<sup>th</sup> at ACM – ICPC Semifinal (9<sup>th</sup> as ICPC Ranklist), Bangladesh Site, 2014.
- Honorable Mention, Inter University Programming Contest at Daffodil Uni., Bangladesh, 2014

## PUBLICATIONS

- [1] First Name Last Name and First Name Other Last Name. Paper: This is the name of the paper. *Some Journal*, 99(18):2200–2300, September 2019.
- [2] First Name Last Name and First Name Again Last Name. Paper ii: This is another paper. *Some Journal*, 99(18):2200–2300, September 2022.

## RESEARCH EXPERIENCE

- Hands on experience in synthesis of multifunctional nanoparticles ( $\text{TiO}_2$ ,  $\text{CeO}_2$ ,  $\text{BiFeO}_3$ ,  $\text{BiVO}_4$ ) using solid state and different wet chemical routes such as sol-gel, hydrothermal, co-precipitation etc.
- Hands on experience in thin film deposition using spin coater ( $\text{TiO}_2$  and  $\text{CeO}_2$ ) and thermal evaporator (ZnSe).
- Material Characterization Analysis: X-Ray Diffraction (XRD), Scanning Electron Microscopy (SEM), Transmission Electron Microscopy (TEM), Selective Area Electron Diffraction (SAED), UV-Visible and Photoluminescence Spectroscopy, X-Ray Photoelectron Spectroscopy (XPS).
- Electrical and Magnetic Characterization Analysis: Dielectric Properties such as resistance, reactance, AC conductivity, AC resistivity; Ferroelectric Properties (P-E hysteresis); Magnetic Properties (M-H hysteresis).

## TECHNICAL SKILLS

Programming: C, C++, Python,  $\text{\LaTeX}$ ; Scientific Computing Environment: MATLAB, Originpro.