



Dawn Iona Fox

Latin America and the Caribbean

Environmental and material chemistry

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Dr. Dawn Iona Fox's work has significant potential for several national and regional impacts in the areas of environmental remediation and public health. Her work is focused on improving drinking water quality at the household level for vulnerable communities and for emergency 'water-stress' events such as floods, storms and hurricanes; she is currently developing a point-of-use household water treatment filter that could be deployed internationally. Apart from public health, Dr. Fox's research has also had unexpected impacts on her local research culture; the publicity generated from the patents she has secured has shone a light on women in Science, Technology, Engineering & Mathematics (STEM) fields and lent positive visibility to both her home university and University of South Florida as viable sources of talent to advance science.

Dr. Fox, born in Bartica, Guyana, is a Lecturer in the Department of Chemistry at the University of Guyana. Her overarching research interest is in converting local materials, especially waste materials, into value-added materials to solve environmental problems. Dr. Fox earned her Bachelor of Science in Chemistry at the University of Guyana in 1997 where she graduated as a salutatorian. She was the recipient of a Commonwealth Scholarship and went on to study for a Masters in Chemical & Materials Engineering at the University of Auckland in Auckland, New Zealand. In 2011, she graduated with a PhD in Chemical Engineering from the University of South Florida (USF), in Tampa, Florida, USA.

Dr. Fox has since returned to teaching and research at her alma mater. She uses locally available and natural materials to make filters and sorbents for improving water quality. She has extensive experience in characterising sorbents with microscopy and spectroscopy, water and wastewater treatment, and water quality analysis. Dr. Fox teaches Chemical Thermodynamics, Inorganic Chemistry and Analytical Chemistry in her department's undergraduate programme. She also supervises final year research students in her department as well as in other departments and faculties, and is the faculty advisor for the department's student group UG ChemClub. In 2016, she co-founded a group called Women in Science & Engineering (WiSE), to support, empower and advocate for girls and women to pursue and flourish in STEM careers. Dr. Fox has several peer-reviewed journal and conference proceedings publications, one book chapter, holds two patents and has given numerous oral presentations at national and international conferences.

“Winning the 2018 OWSD-Elsevier Foundation Award for Early Career Women Scientists is both a validation and an encouragement to continue my work on using locally available and natural materials to create sustainable water treatment technology. It also gives me the confidence to continue my advocacy and outreach to encourage girls and women to consider STEM careers.”

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