

5<sup>th</sup> World Congress on

# GREEN CHEMISTRY AND GREEN ENGINEERING

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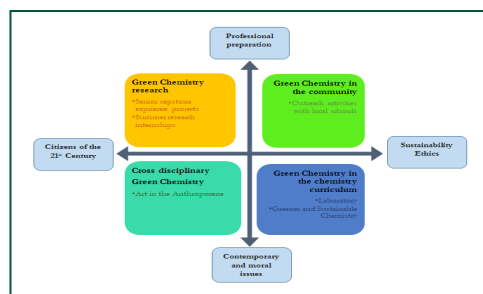


## Anne Marteel-Parrish

Washington College, USA

### Implementing green chemistry education in a private liberal arts and sciences curriculum: A challenging and rewarding adventure

Washington College founded in 1782 under the patronage of George Washington and the first college chartered in the new nation is a little gem on the eastern shore of Maryland. The proximity to the Chester River, the on-campus sustainability initiatives and the importance of volunteering on a personal, local and global level guide Anne Marteel-Parrish in her pursuit to incorporate green chemistry in the chemistry curriculum but also in the lives of students and in the local community. In this presentation, the author will share how first-year undergraduate students can benefit from being exposed to green chemistry in traditional courses such as general chemistry but also how seniors can expand their horizon by participating in a senior capstone experience project based on the interdisciplinary nature of green chemistry. Author's mission is to infuse green chemistry in the overall learning experience, whether students need to take a seminar course for their chemistry major or if they want to be more challenged by enrolling in in-depth courses such as the fundamentals of materials science or greener and sustainable chemistry. The introduction to sustainability ethics, the discussion of contemporary moral issues dealing with sustainability and the discovery of the synergistic relationship between art and green chemistry which led to a newly designed course on art in the anthropocene the greener art through greener chemistry serve as stimuli to prepare the next generation of scientists to the 21st century global challenges. Additionally, this presentation will present how green chemistry and green engineering outreach activities conducted in partnership with local schools at various grade levels can drive the force to mentor and inspire students from minorities and lower socio-economic backgrounds. Future plan and aspirations will conclude this presentation.



#### Recent Publications

1. Marteel-Parrish A E (2017) Preparing chemistry majors for the 21st century through a comprehensive one-semester course focused on professional preparation, contemporary issues, scientific communication and research skills. *Journal of Chemical Education*; 95(1): 68-75.
2. Marteel-Parrish A E (2017) Highlights of the impacts of green and sustainable chemistry on industry, academia and society in USA. *Johnson Matthey Technology Review*; 61(3): 207.

#### Biography

Anne Marteel-Parrish has pursued her Master's degree in Materials Science from the Ecole Polytechnique de Lille in France and PhD in Chemistry with concentration in Materials Science from the University of Toledo, Ohio. She has achieved full Professorship at Washington College and is the current Co-Chair of the Chemistry Department at Washington College. She was invested as the Inaugural Holder of the Frank J Creegan Chair in Green Chemistry. She is the recipient of several national awards such as the American Chemical Society-Committee on Environmental Improvement (ACS-CEI) award for incorporating sustainability into chemistry education; Centennial award for excellence in undergraduate teaching from Iota Sigma Pi; the National Honor Society for Women in Chemistry.

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