

Biographical Sketch

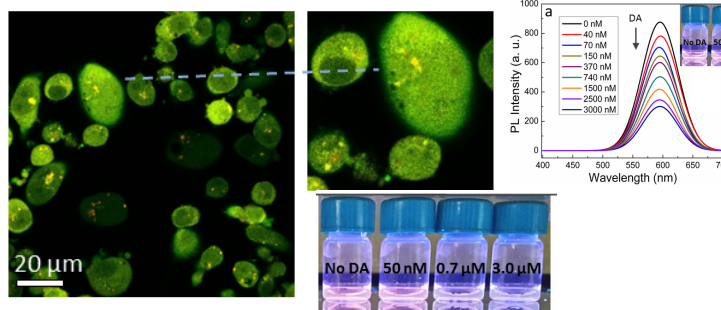
DAYSÍ DÍAZ-DIESTRA

Current Status

Ph.D. Candidate,
Department of Chemistry, UPR-RP
Email: daysi.diaz@upr.edu

Education

2008 -2013	UPR Rio Piedras
2013	B.S. Chemistry
2013-present	UPR Rio Piedras
2018 (expected)	PhD Chemistry



Research Interests: Development of novel fluorescent sensors based on multifunctional QDs for the detection of dopamine exocytosis from dopaminergic cells.

Research experience

2017 - present	Visiting Research Student, Harvard University
2013 - present	Graduate Research Assistant (mentor, Dr. Weiner)

Awards

2017	Research Initiative for Scientific Enhancement (RISE) fellowship
2014– 2016	National Science Foundation (NSF - IFN), Research Fellowship
2015 & 2014	Travel Award, NASA Scholar
2009-2012	Dean's list
2009	CenSSIS Scholar

Oral talks (selected)

1. **Daysi Diaz-Diestra**, Juan Beltran-Huarac, Bibek Thapa, Jabril Vilmenay, Brad R. Weiner and Gerardo Morell. SM7.2.06: “Surface-Complexation ZnS:Mn Quantum Dots for Detection of Dopamine with High Sensitivity”, Symposium SM7.2: Future Healthcare Needs through Biomaterials, Bioengineering and the Cellular Building Block II. Materials Research Society (MRS) Spring Meeting & Exhibit, Phoenix, AZ, USA, March 28 – April 1, 2016. (Invited talk).
2. **Daysi Diaz-Diestra**, Juan Beltran-Huarac, Brad R. Weiner and Gerardo Morell. ANYL-689: “New- generation enzyme-free hydrogen peroxide amperometric sensor based on ZnS:Mn/graphene nanocomposites”, Symposium: (Bio)chemical/electrochemical sensors and sensing materials - #417. The International Chemical Congress of Pacific Basin Societies (PACIFICHEM), Honolulu, Hawaii, USA, December 15-20, 2015.
3. **Daysi Diaz-Diestra**, Juan Beltran-Huarac, Dina Bracho-Rincon, Jose Feliciano-Gonzalez, Carlos I. Gonzalez, Brad R. Weiner and Gerardo Morell. INOR-157: “Water-

synthesized ZnS:Mn quantum dots for multiple biological detection and enzyme immobilization”, Symposium: New Frontiers in Bioinorganic Chemistry - #356. The International Chemical Congress of Pacific Basin Societies (PACIFICHEM), Honolulu, Hawaii, USA, December 15-20, 2015.

4. **Daysi Diaz-Diestra**, Juan Beltran-Huarac, Dina P. Bracho-Rincon, Jose A. Gonzalez-Feliciano, Carlos I. Gonzalez, Brad R. Weiner and Gerardo Morell. S2B-O023: “Water-synthesized ZnS:Mn quantum dots for multiple biological detection and enzyme immobilization: An emerging biomaterial”, Symposium 2B: Biomaterials for medical applications. XXIV International Materials Research Congress (IMRC), Materials Research Society (MRS), Cancun, Mexico, August 16-20, 2015.
5. **Daysi Diaz-Diestra**, Juan Beltran-Huarac, Dina P. Bracho-Rincon, Jose A. Gonzalez-Feliciano, Carlos I. Gonzalez, Brad R. Weiner and Gerardo Morell. O114: “Water-synthesized ZNS:mn quantum dots FOR multiple biological detection and enzyme immobilization”, Symposium: Nanoscience. XI International Interdisciplinary Scientific Research Congress. Santo Domingo, Dominican Republic, June 10-12, 2015.

Posters (selected)

1. **Daysi Diaz-Diestra**, Juan Beltran-Huarac, Liz Diaz, Brad R. Weiner and Gerardo Morell. D10.03: “A novel nano-platform for biosensing parabens”, Symposium D: Materials and concepts for biomedical sensing. Materials Research Society (MRS) Fall Meeting & Exhibit, Boston, Massachusetts, USA, November 30 – December 5, 2014.
2. **Daysi Diaz-Diestra**, Juan Beltran-Huarac, Sandra Peña, Luis Rivera, Brad R. Weiner and Gerardo Morell. AA.950: “Photosensitizing activity in Mn-doped zns nanoparticles”, Symposium AA: Catalytic nanomaterials for energy and environment. Materials Research Society (MRS) Fall Meeting & Exhibit, Boston, Massachusetts, USA, December 1-6, 2013.

Publications (selected)

1. Bibek Thapa, **Daysi Diaz-Diestra**, Juan. Beltran-Huarac, Brad R. Weiner, G. Morell. "Enhanced MRI T 2 Relaxivity in Contrast-Probed Anchor-Free PEGylated Iron Oxide Nanoparticles." *Nanoscale Research Letters* (2017), 12 (1),312- 325.
doi:10.1186/s11671-017-2084-y
2. **Daysi Diaz-Diestra**, Bibek Thapa, Juan Beltran-Huarac, Brad R. Weiner, Gerardo Morell. “L-cysteine capped ZnS:Mn quantum dots for room-temperature detection of dopamine with high sensitivity and selectivity”. *Biosensors and Bioelectronics*, 2017, 87 (15), 693-700. <http://dx.doi.org/10.1016/j.bios.2016.09.022>
3. Arnulfo Rojas-Pérez, **Daysi Diaz-Diestra**, Cecilia B. Frias-Flores, Juan Beltran-Huarac, K. C. Das, Brad R. Weiner, Gerardo Morell and Liz M. Díaz-Vázquez. “Catalytic effect of ultrananocrystalline Fe₃O₄ on algal bio-crude production via HTL process”. *Nanoscale* 2015, 7(42), 17664-17671. doi: 10.1039/C5NR04404A
4. **Daysi Diaz-Diestra**, Juan Beltran-Huarac, Dina P. Bracho-Rincon, José A. González-Feliciano, Carlos I. Gonzalez, Brad R. Weiner and Gerardo Morell. “Biocompatible

- ZnS:Mn quantum dots for reactive oxygen generation and detection in aqueous media”. *Journal of Nanoparticle Research* **2015**, 17(12), 461. doi: 10.1007/s11051-015-3269-x
5. Marcos R. Rodriguez-Torres, Christian Velez, Beatriz Zayas, Osvaldo Rivera, Zikri Arslan, Maxine N. Gonzalez-Vega, **Daysi Diaz-Diestra**, Juan Beltran-Huarac, Gerardo Morell and Oliva M. Primera-Pedrozo. “Cytocompatibility of direct water synthesized cadmium selenide quantum dots in Colo-205 cells”. *Journal of Nanoparticle Research* **2015**, 17(6), 266. doi: 10.1007/s11051-015-3064-8