Women in Colors

SENDY NASCIMENTO - UFAL
POSTDOCTORAL RESEARCHER IN
PHYSICS

1. Who am I?;
2. Women in Colors;
3. Mileva Maric;
4. Dr Katherine Johnson;
5. Dr Valerie Thomas;
6. Dr Barbara Carine;
7. My history;
8. My work;
9. Opportunities;
10. Thanks.

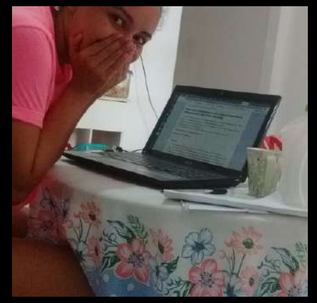
WHO AM I?

I love books
and music

WHO AM I?

I love books and music

I am apaixonate about learning and study



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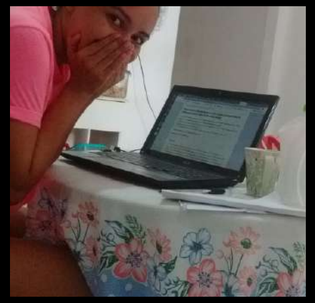

I love parties and stay alone

WHO AM I?

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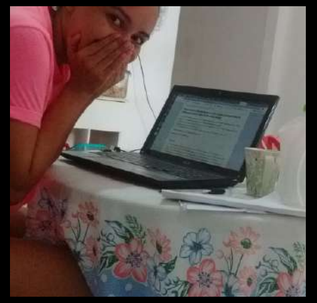

I love parties and stay alone

I am experimental physics

WHO AM I?

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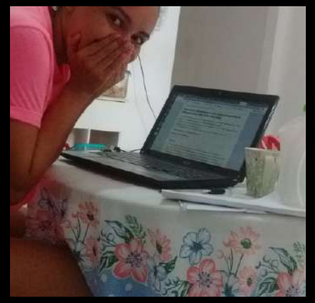


I love parties and stay alone

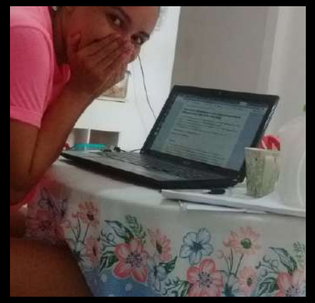
I am experimental physics

I am Alice's mom

WHO AM I?

I love books and music

I am apaixonate about learning and study



I love parties and stay alone

I am experimental physics

I am Alice's mom

and more...

WOMEN IN COLORS

MILEVA MARIC

- She was a physicist and mathematician;
- She was a person with a disability.
- The only woman among fellow students at Zürich Polytechnic and the second woman to finish a full program of study at the Department of Mathematics and Physics;
- Her studies included the following courses: differential and integral calculus, descriptive and projective geometry, mechanics, theoretical physics, applied physics, experimental physics, and astronomy;

In 1905, three articles appeared, which began three very important to physics: the theory of Brownian motion, the photon theory of light, and the theory of relativity. The author of these articles – an unknown person at that time was Einstein-Marity (Marity the maiden name of his wife, Mileva). Adapted from Joffe

There are no miracles in science!

My revolted reference to the "Annus Mirabilis Papers" - 1905.

KATHERINE JOHNSON

- She was a mathematician;
- During her 33-year career at NASA and before works, she earned a reputation for complex manual calculations;
- One of the first African-American women to work as a NASA scientist;
- Johnson's work included calculating air traffic, trajectories, launch windows, and emergency return paths, creating a one-star observation system, encouraging students to enter the fields of science, technology, engineering, and mathematics (STEM).

Her recognition and their other colleagues, black women, was possible due to another great black woman, the author Margot Lee.

VALERIE THOMAS

- She is a data scientist and inventor;
- She was one of two women majoring in physics (Morgan State University);
- She developed real-time computer data systems to support satellite operations control centers;
- She invented the illusion transmitter (3-D illusions).

Dr Thomas works as a teacher at DuBois High School, developing young people's interest in science, and helping inspire students under her mentorship;
She is a pioneer in computer data systems and image processing, a field (like so many other science fields) that is still dominated by cis white men.

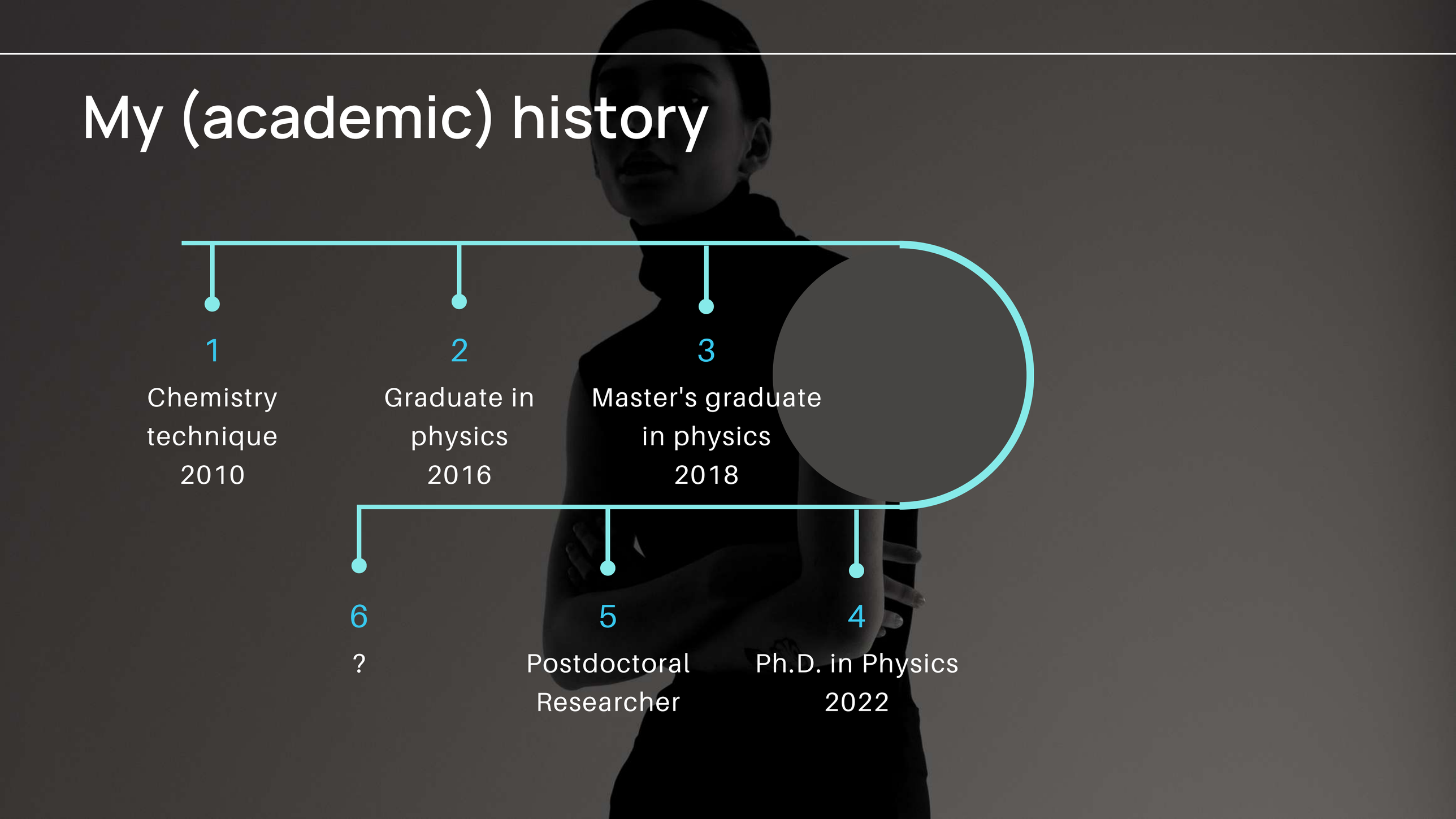
BÁRBARA CARINE

- She is a chemist and philosopher;
- Research on chemistry teaching;
- She promotes science on social media and encourages young black Brazilians to persue their dreams and rights;
- She is the author of several books, including "Descolonizando Saberes", "História preta das coisas", "Como ser um educador antirracista", among other titles.

I'm a big fan and I appreciate all the support she provides for young black academics!!

MY HISTORY

My (academic) history



1
Chemistry technique
2010

2
Graduate in physics
2016

3
Master's graduate in physics
2018

4
Ph.D. in Physics
2022

5
Postdoctoral Researcher

6
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My (academic) history

1

Chemistry technique

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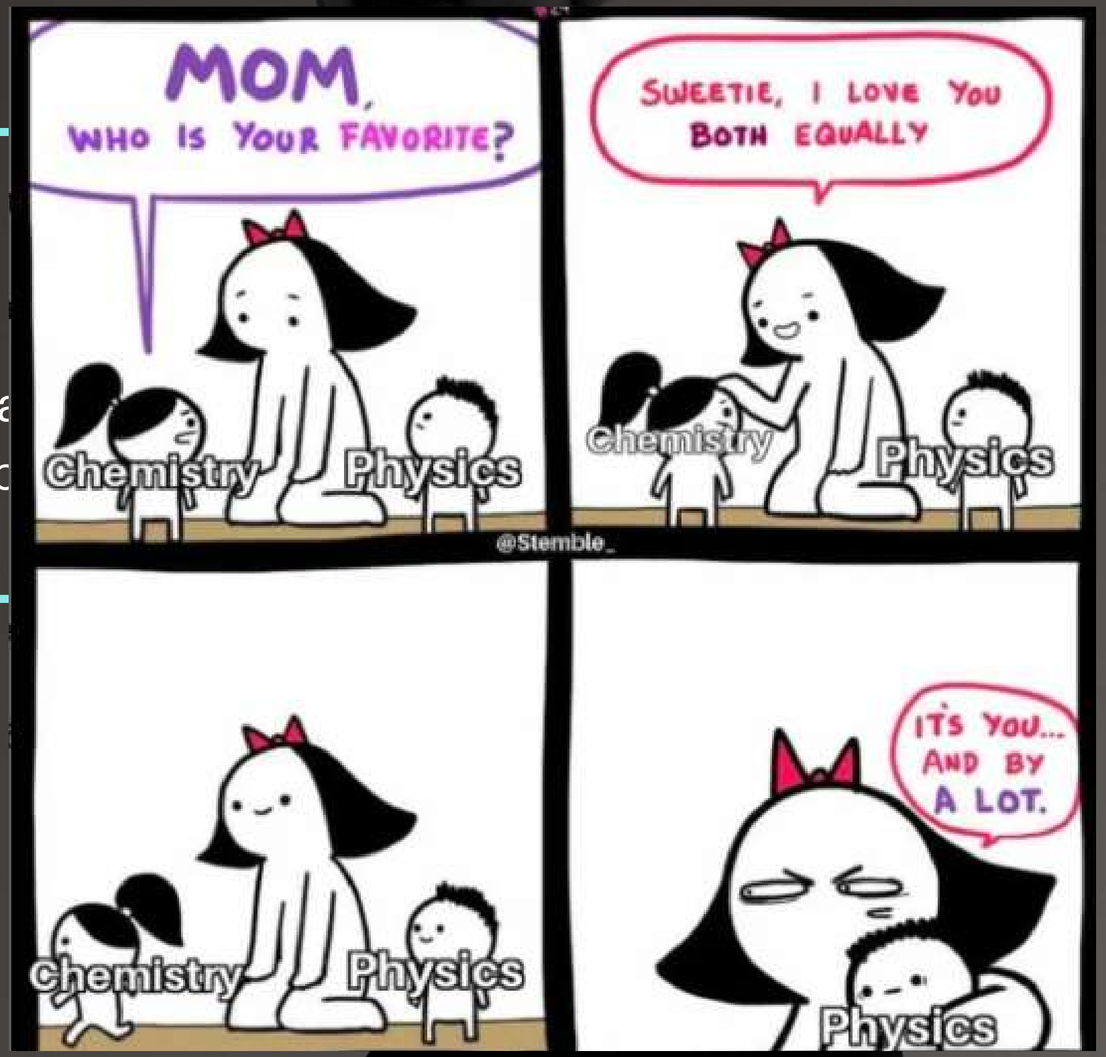

I don't have a favorite!

MY HISTORY

I became pregnant in the first year of my undergraduate studies. I took a break, then returned to continue. I had to navigate life as a solo mother to my daughter, relying solely on a research scholarship, university daycare, assistance from colleagues, and sharing a house with others. While there were times I needed to take breaks, contrary to what many people said, I always returned!

DIFFICULTS

Maternity

Reconciling the responsibilities of caring for a child and managing study or laboratory work is a challenge. Often, mothers fulfill multiple roles as caregivers, educators, psychologists, nurses, cooks, and more. This multifaceted and demanding workload represents an unjust and often invisible aspect of their efforts.

Financial problems

Taking care of a child involves being responsible for their education, and similar to all aspects of life, it demands time, patience, and MONEY. My daughter, like many other children in this country, experienced a considerable amount of social insecurity due to my financial constraints.

MY WORK

MATERIALS

Carbon quantum dots

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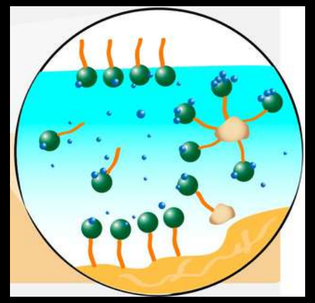
MATERIALS

Carbon quantum dots

Surfactants



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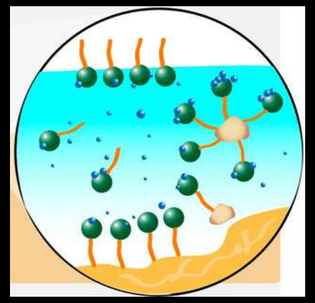
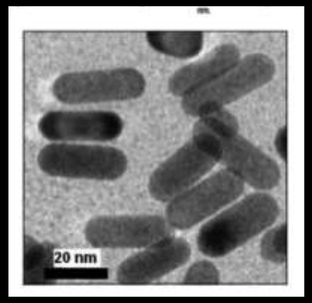
MATERIALS

Carbon quantum dots

Surfactants



Metalic nanoparticles



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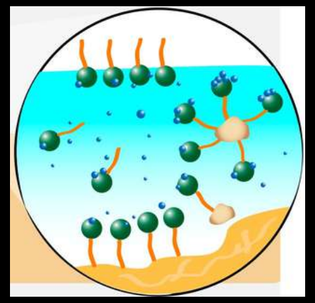
MATERIALS

Carbon quantum dots

Surfactants



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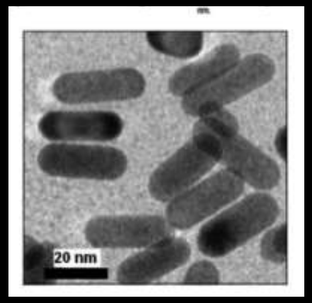
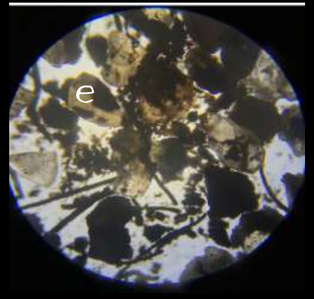


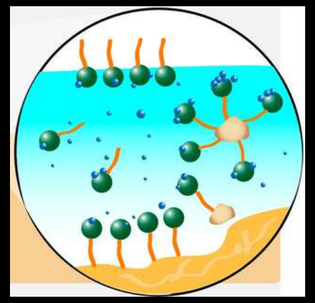


Construction and demolition waste

MATERIALS

Carbon quantum dots

Surfactants



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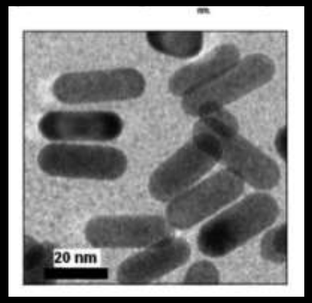
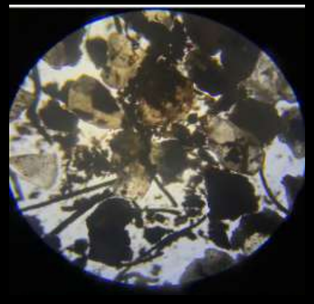
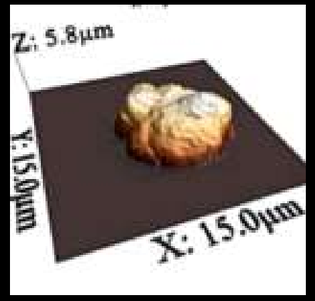




Construction and demolition waste

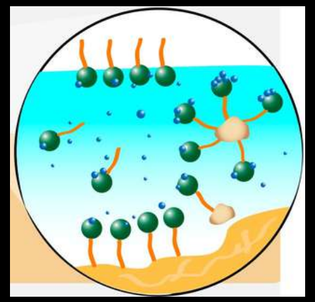


Microplastic

MATERIALS

Carbon quantum dots

Surfactants



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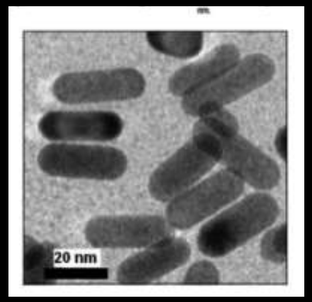

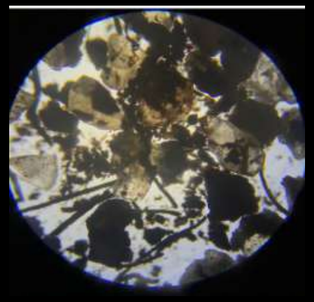

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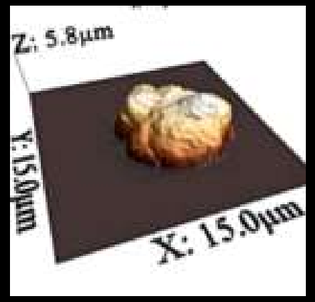

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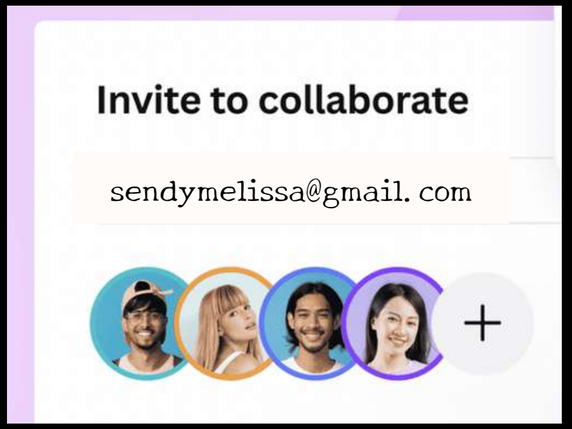

SPECTRUM

I study the meeting between light and matter!

RSC Advances

PAPER

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View Journal | View Issue

ROYAL SOCIETY OF CHEMISTRY

Check for updates

Cite this: *RSC Adv.*, 2021, **11**, 2767

Temperature-dependence on the optical properties of chitosan carbon dots in the solid state†

J Nanopart Res (2021) 23: 262
https://doi.org/10.1007/s11051-021-05362-7

RESEARCH PAPER

Check for updates

An eco-friendly green and facile synthesis of carbon dots from red propolis wax with photoluminescence dependent of reaction time and thermal treatment in solid state

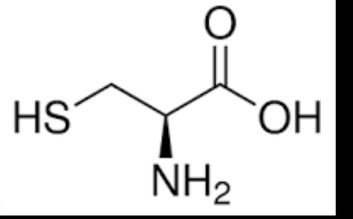
IOP Publishing

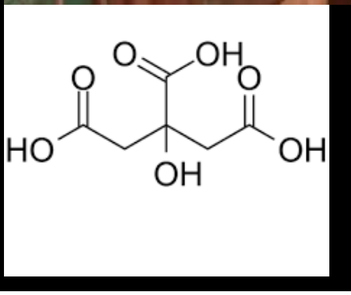
Nanotechnology

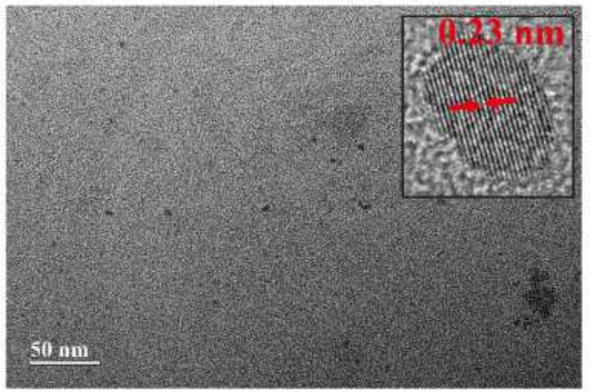
Nanotechnology **33** (2022) 235708 (11pp)

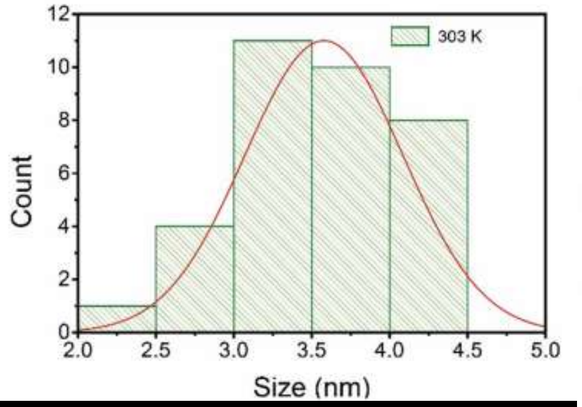
https://doi.org/10.1088/1361-6528/ac56f2

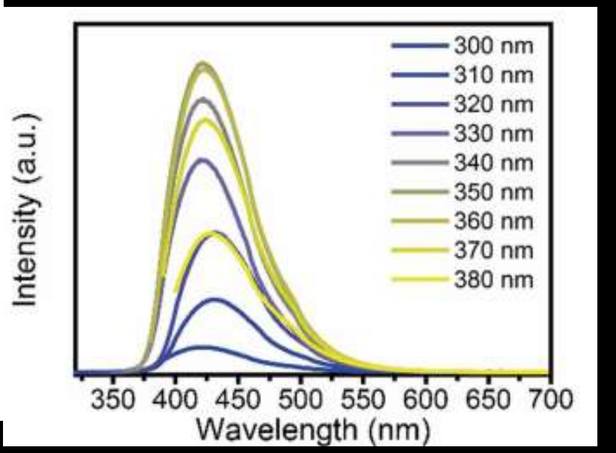
Tuning the photoluminescence by engineering surface states/size of S, N co-doped carbon dots for cellular imaging applications

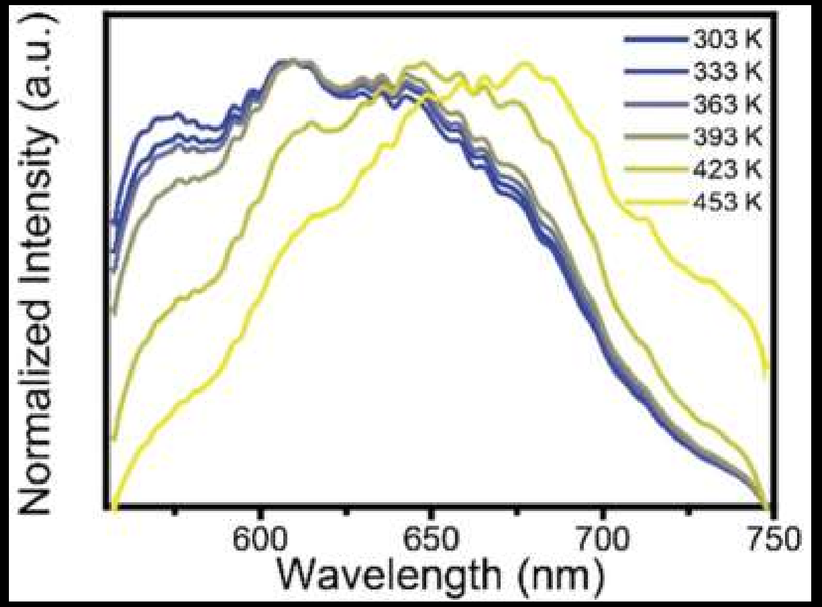


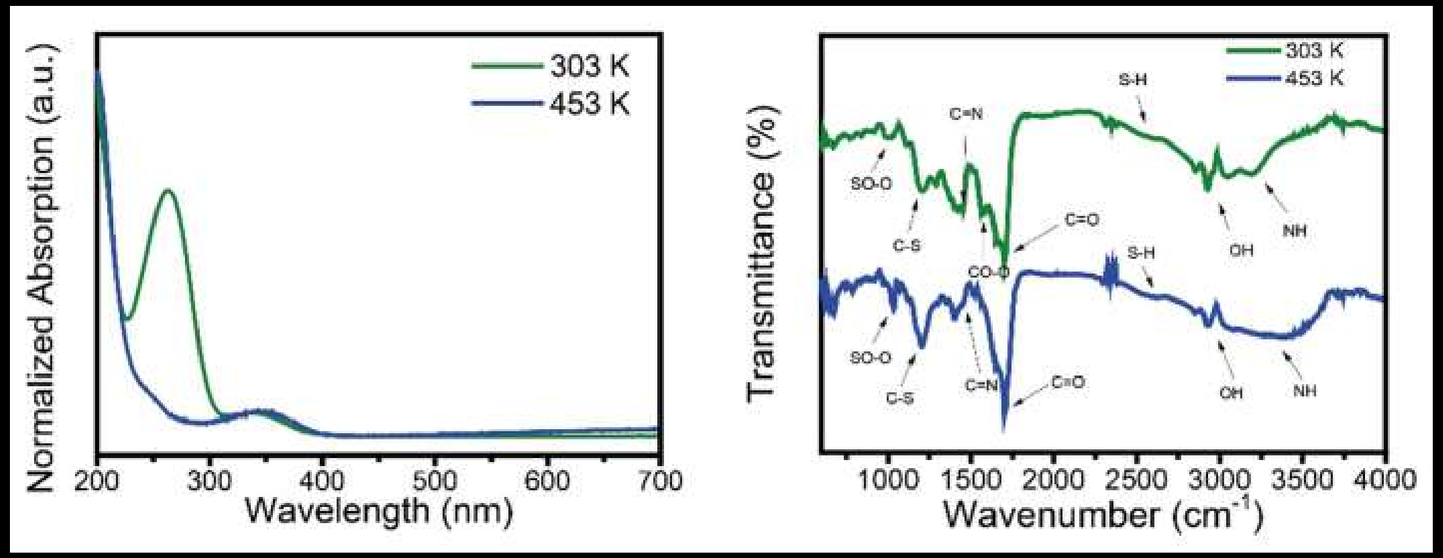












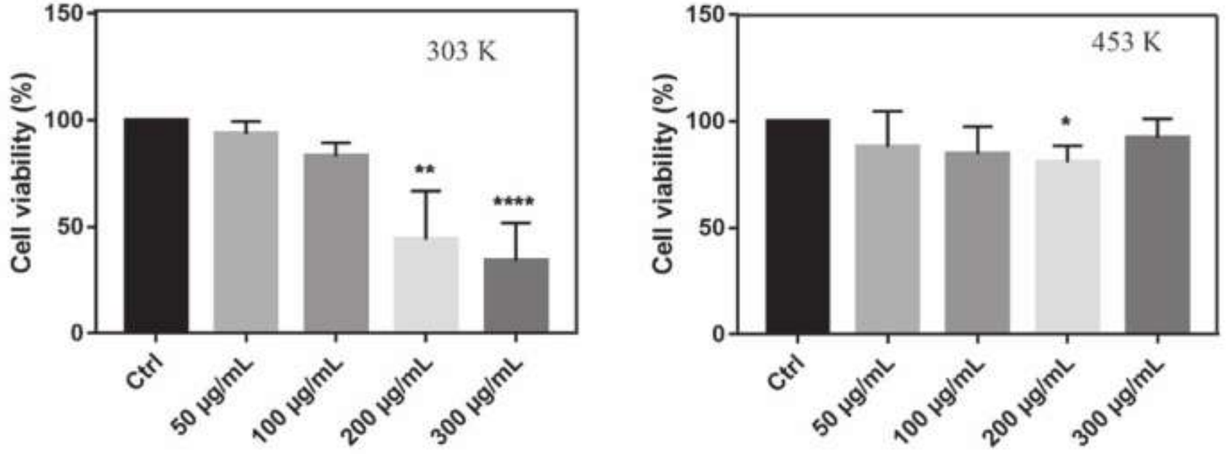


Figure 6. Cell viability of HTR-8/SVneo cells in the presence of different concentration of as-prepared CDs. (a) 303 K, (b) 453 K.

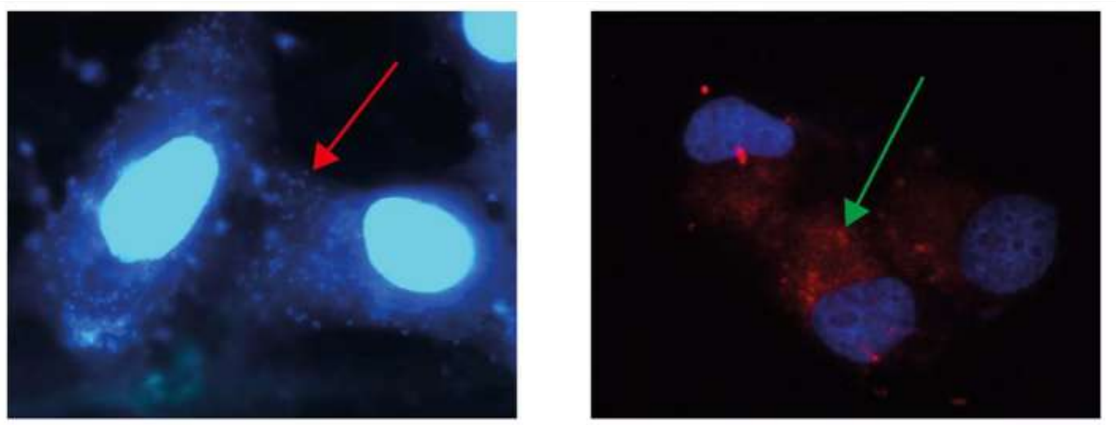


Figure 7. HTR-8/SVneo cells staining profile. (a) 303 K, (b) 453 K.

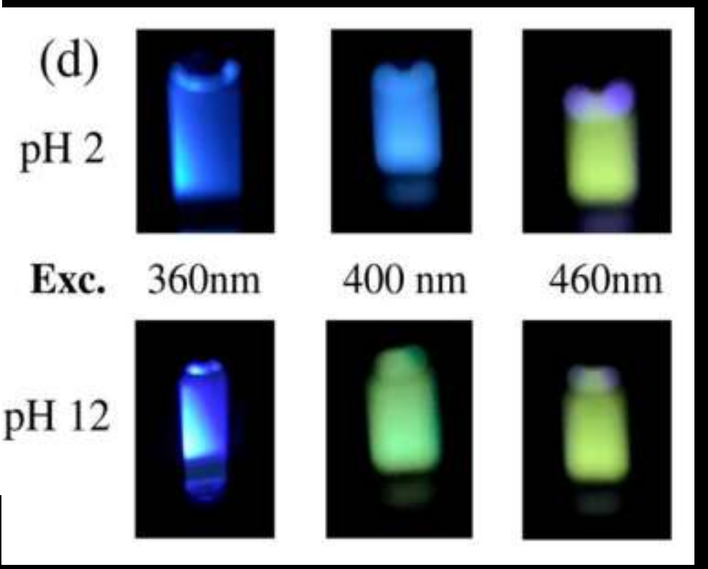
IOP Publishing

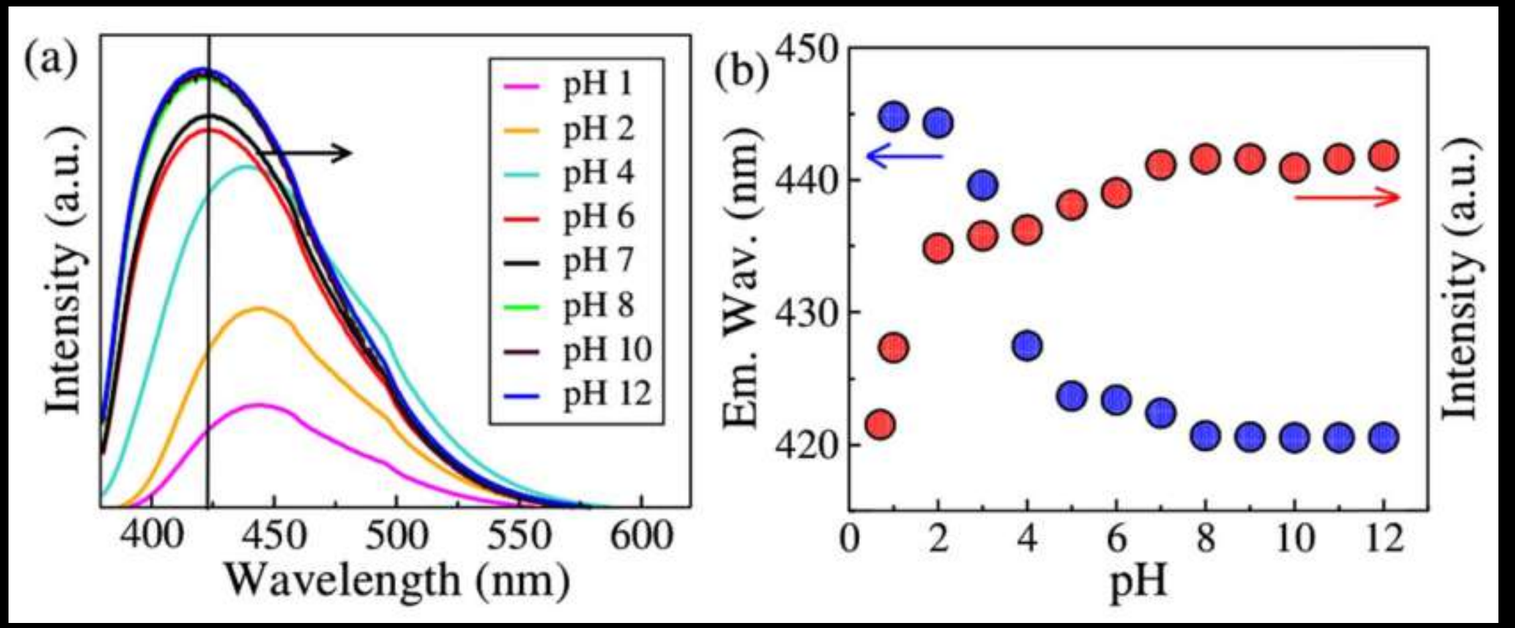
Nanotechnology

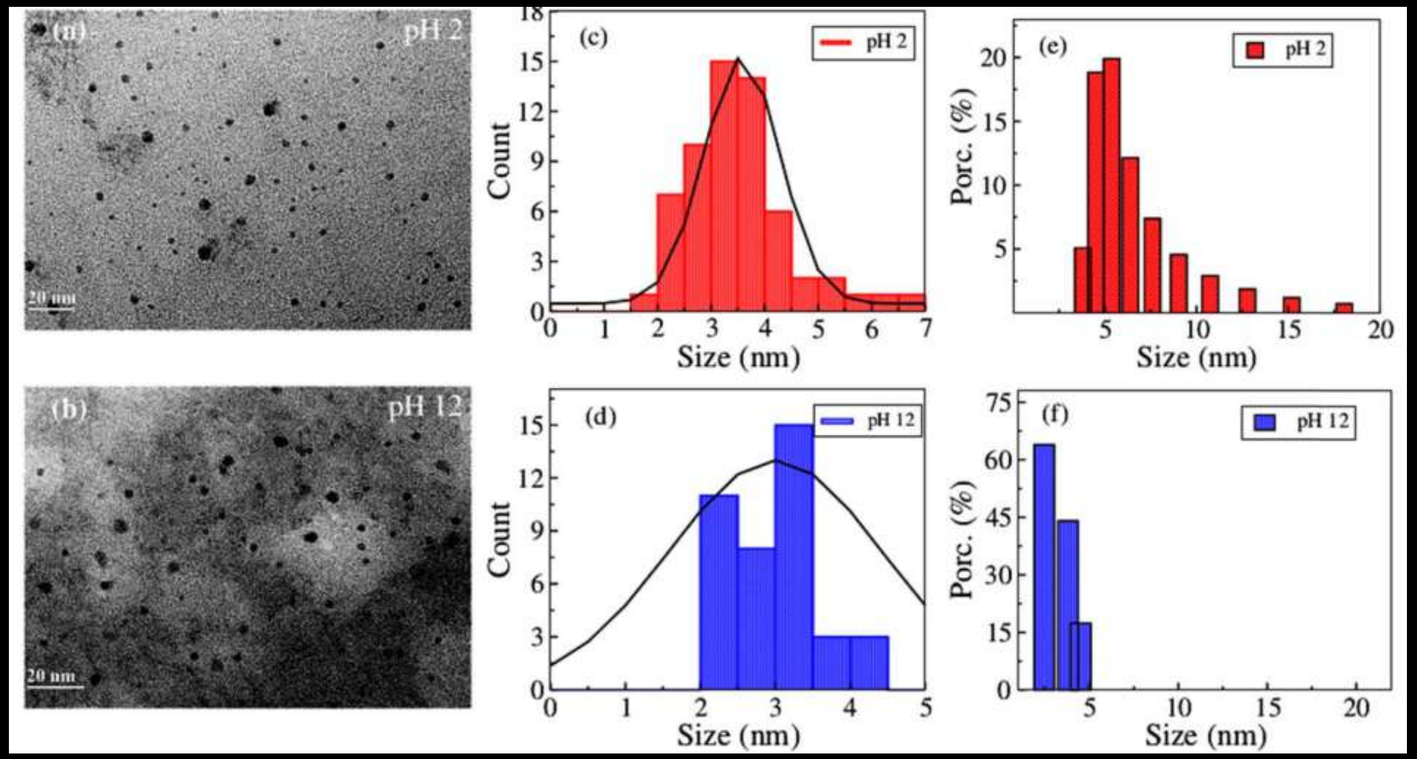
Nanotechnology **34** (2023) 365708 (10pp)

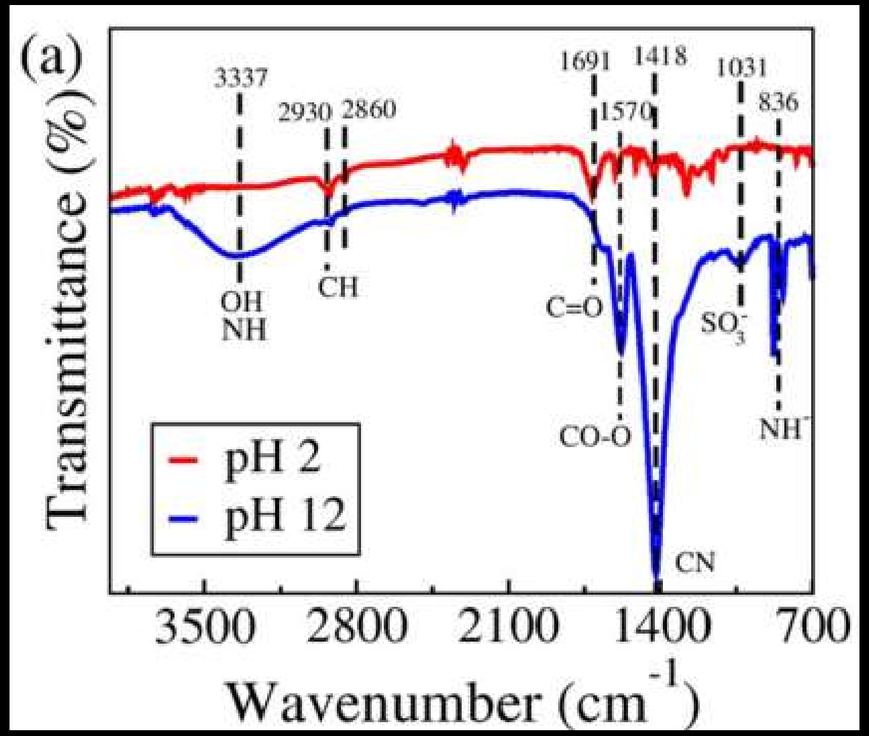
https://doi.org/10.1088/1361-6528/acdc30

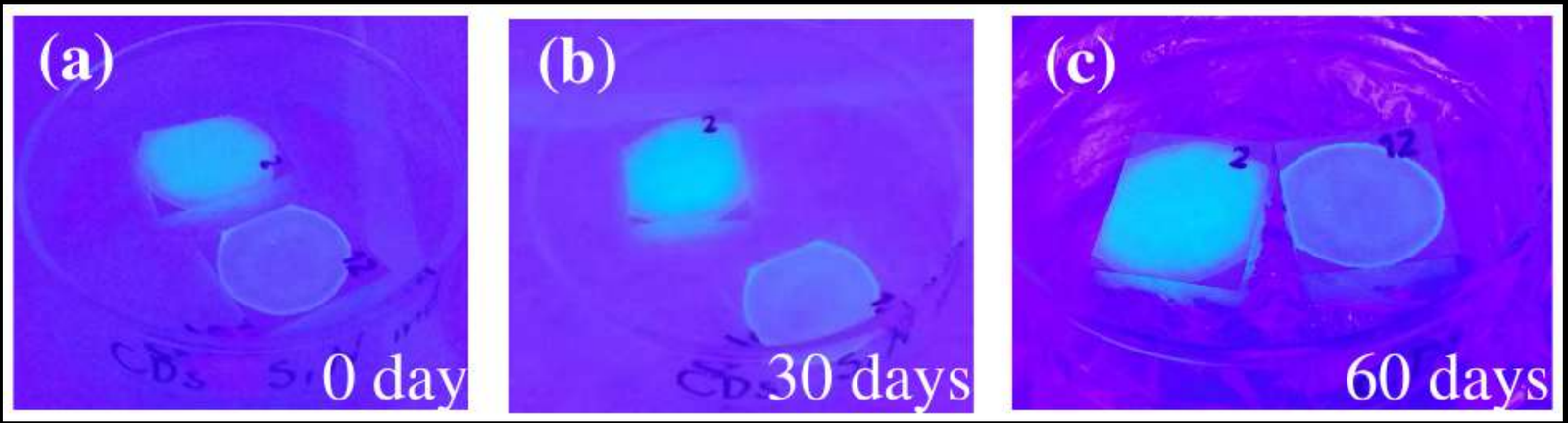
Study of the pH effect on the optical and morphological properties of S, N self-doped carbon dots applied as fluorescent anti-counterfeiting ink and pH sensor

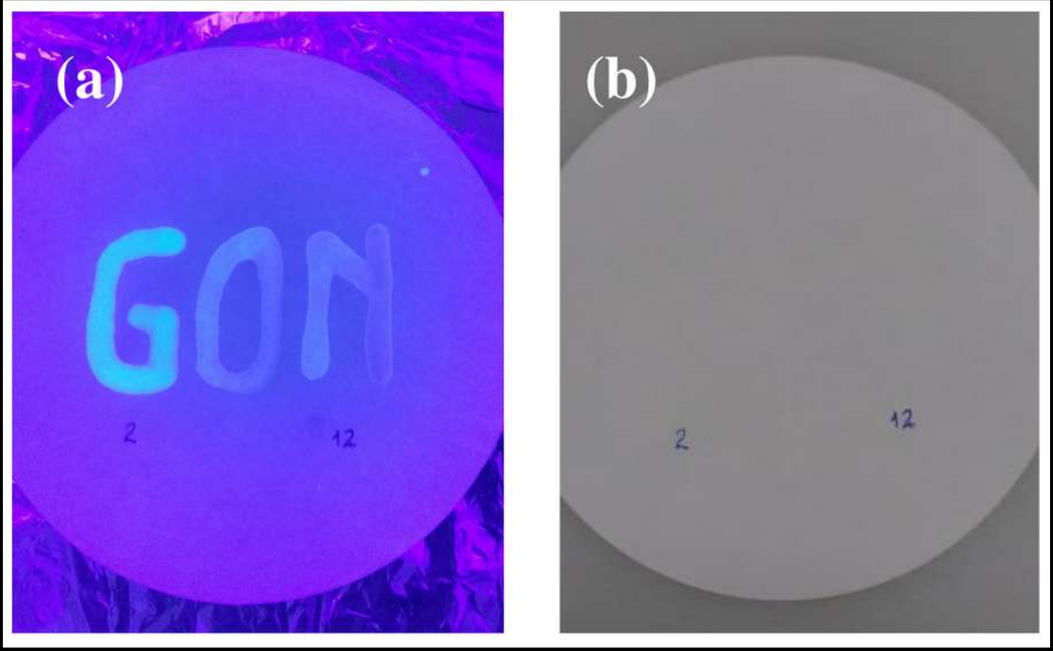





(a)
pH 2
20 nm
(b)
pH 12
20 nm
(c)
pH 2
Count
Size (nm)
(e)
pH 2
Porc. (%)
Size (nm)
(d)
pH 12
Count
Size (nm)
(f)
pH 12
Porc. (%)
Size (nm)


(a)
Transmittance (%)
3337
2930
2860
1691
1570
1418
1031
836
OH
NH
CH
C=O
CO-O
CN
SO_3^-
NH^+
pH 2
pH 12
3500
2800
2100
1400
700
Wavenumber (cm^{-1})





CERTIFICADO

A Fundação de Amparo à Pesquisa do Estado de Alagoas – Fapeal certifica que

Sendy Melissa Santos do Nascimento

foi contemplada no Edital Fapeal nº 03/2023

dada a publicação do artigo *Study of the pH effect on the optical and morphological properties of S, N self-doped carbon dots applied as fluorescent anti-counterfeiting ink and pH sensor* na revista científica *Nanotechnology*, de elevada qualificação em sua respectiva área de conhecimento.

Fábio Guedes Gomes

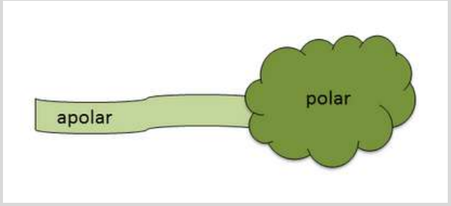
Maceió - AL

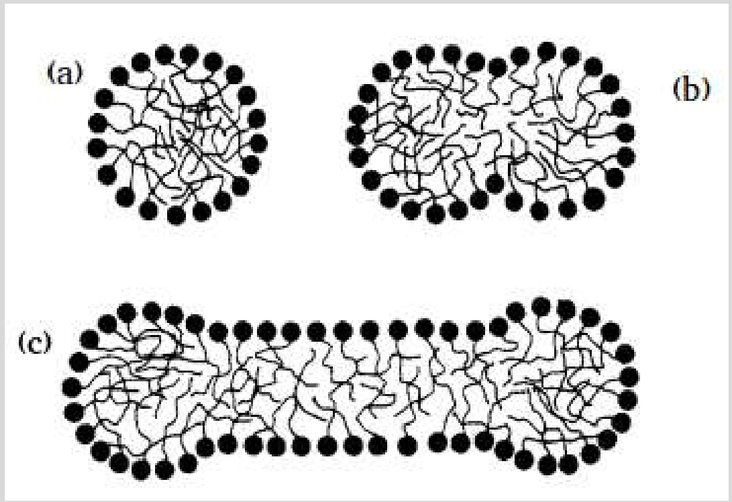
OUTUBRO 1 2023

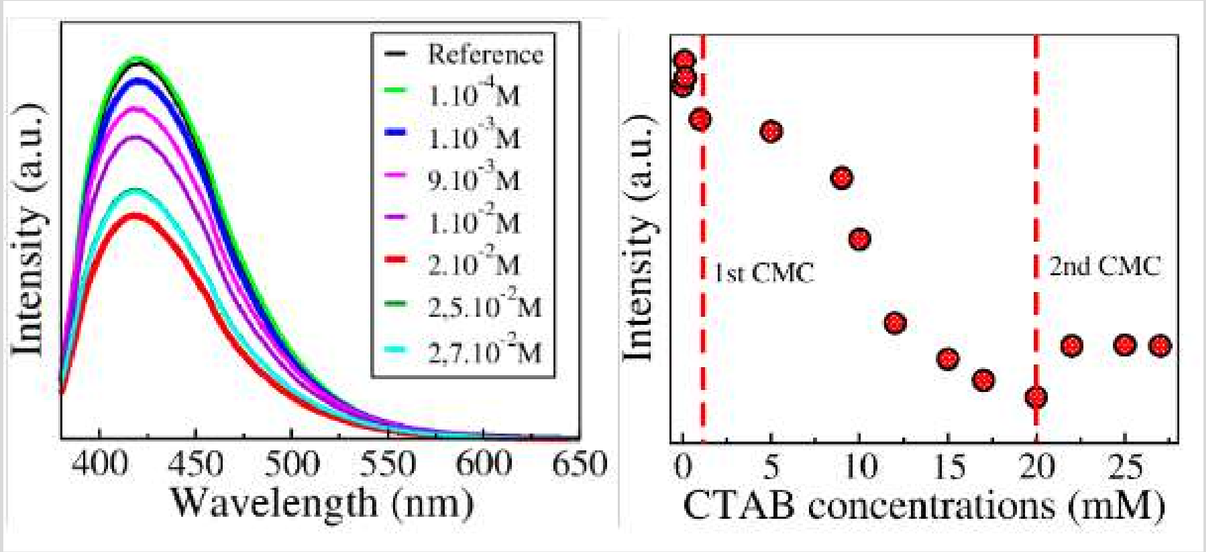
FAPEAL Secretaria de Estado da Ciência, da Tecnologia e da Inovação ALAGOAS

Determining the Critical Micelle Concentration of Surfactants by Simple and Fast Titration Method using Carbon Dots

*under revision







OPPORTUNITIES

- Latinas in STEM looking for digital media assistant;
- Claredon Fellowship - master and PhD;
- Examination for a professor at the university - open to UEAP, UFCG, UNIFESP, UEFS, UFPA, UFRPE;
- Trainee - JSL Group, Renner, Eletrobras, Leroy Merlin and CBO Group.

THANK YOU

CONTACT ME

sendymelissa@gmail. com

@send. science

Photo: Laís Oliveira


UFAL
FAPEAL
Fundação de Amparo à Pesquisa do Estado de Alagoas
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CNPq
Conselho Nacional de Desenvolvimento Científico e Tecnológico
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Biologia Celular
ICTP
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