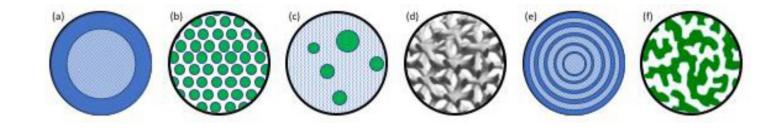
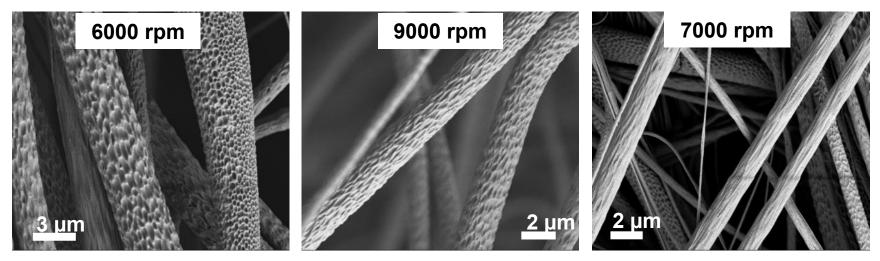
UTRGV-UMN PARTNERSHIP to Strengthen the PREM Pathway

Karen Lozano, The University of Texas Rio Grande Valley

The aim of this project is to understand tailor and control the structure and properties of fibers using emulsions, polymer blends, block copolymers and adjustments to the processing parameters within the force spinning process.





Fiber surface obtained at different angular speeds by emulsion-based systems



Where Materials Begin and Society Benefits

DMR-2122178

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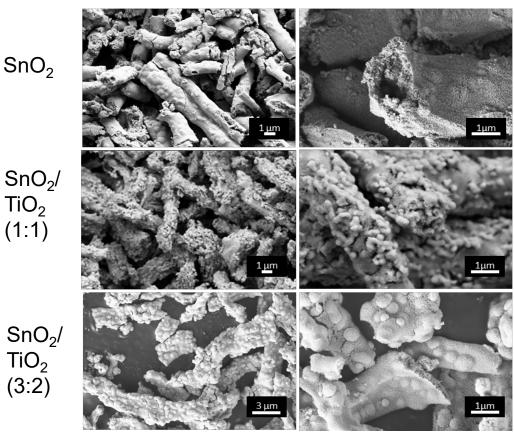
F

TiO₂ (1:1)

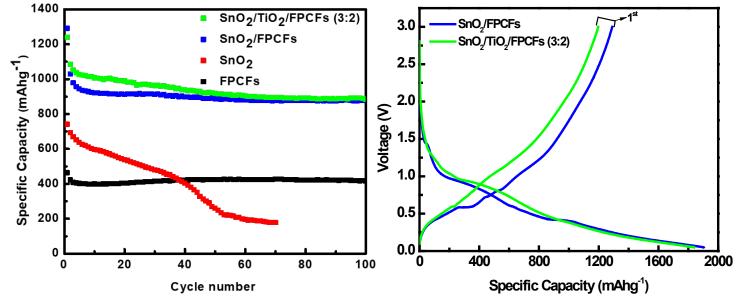
TiO₂

(3:2)

SnO₂/TiO₂ fibers



Karen Lozano, The University of Texas Rio Grande Valley



- SnO2/TiO2/C fiber composite anodes demonstrated improved electrochemical performance
- Carbon coating on SnO2/TiO2 shows promising effect on the stability of the composite anodes
- The SEI formation in developed fibers shows improved anode performance due to the high surface area and surface roughness

Gonzalez, Sanchez, Ramirez, Myers, Lodge, Parsons, Alcoutlabi, Bull. Mater. Sci., 46, 58, 2023



UTRGV-UMN PARTNERSHIP to Strengthen the PREM Pathway

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STUDENTS 2022-2023

52 UG students

- 94% URM, 40% women 5 High School students
- 80% URM, 60% women
 15 MS students
 - 73% URM, 47% women

12 UMN REU

92% URM

GRADUATED

- 28 UG (44% continued to grad school)
- 12 MS (48% PhD)



