

# Special Seminar

by

**Dr. Malika Jeffries-El**

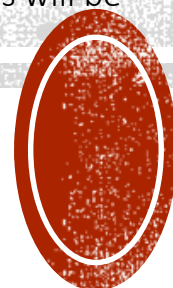
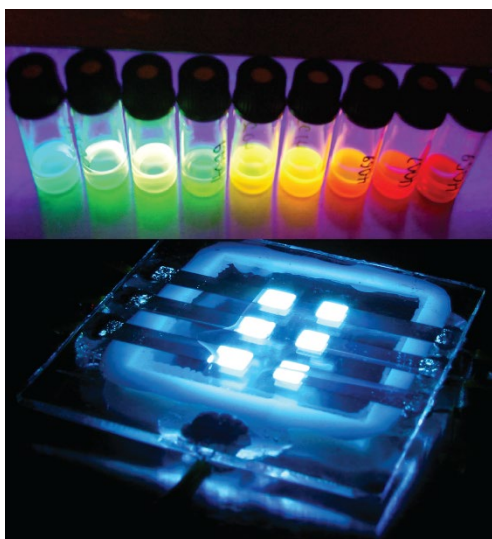
**Boston University**



## **Design and Synthesis of Organic Electronic Materials**

Since their discovery over 40 years ago conjugated polymers have been of tremendous scientific and technological interest. These materials possess many exceptional electronic, optical and thermal properties and thus are well suited for organic semiconducting applications, such as solar cells and light emitting diodes.

Unfortunately, there are several issues that have to be addressed before real-life products can be developed. Our group focuses on the design and synthesis of both polymeric and molecular organic semiconductors based from low cost and/or easily prepared starting materials. Since the properties of these materials can be readily modified through chemical synthesis, we have turned our attention towards the development of novel building blocks. Our system of choice, benzobisazoles have many exceptional electronic, optical and thermal properties and thus are ideally suited for diverse organic semiconducting applications. Our group developed several new materials based on benzobisoxazoles including wide band gap materials for use in organic light-emitting diodes and narrow band gap materials for use in photovoltaic cells. Our work on the synthesis and properties and utility of these materials will be presented.



**Tuesday, March 12**

**12:05 pm in 1315 Chemistry**

***Hosted by Prof. AJ Boydston***