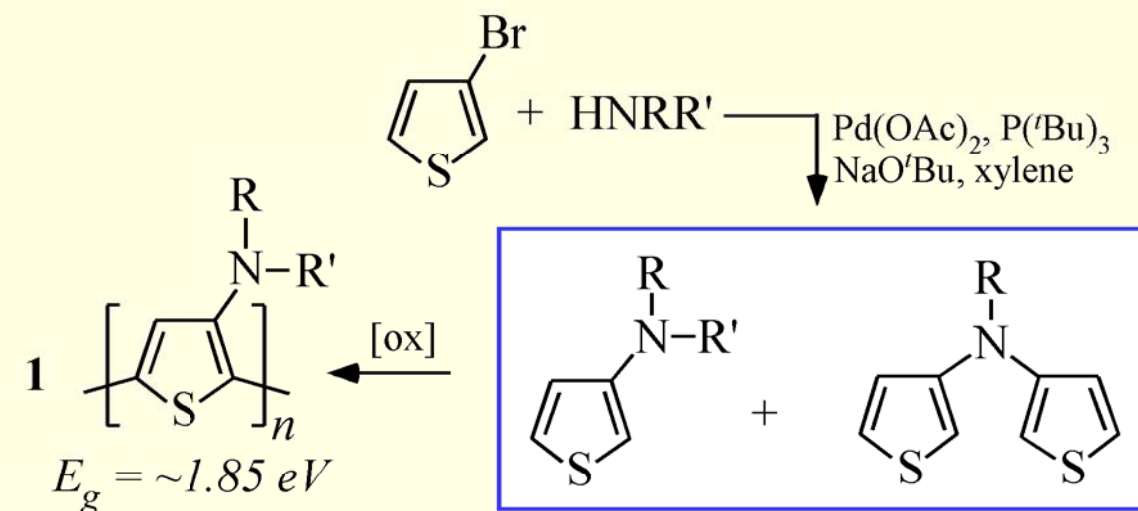
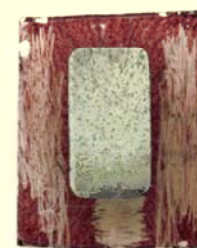


# Thiophene Amination Routes to Nitrogen Functionalized Conjugated Polymers

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Catalytic amination of thiophenes allows convenient access to aminothiophenes and dithieno[3,2-*b*:2',3'-*d*]pyrrole)s (**DTPs**). These conjugated building blocks then allow access to polyaminothiophenes (**1**), polyDTPs (**2**), and DTP-based oligothiophenes (**3**).



polyDTP-based solar cell

