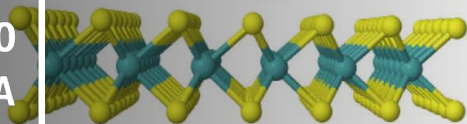
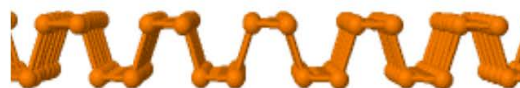


MoS₂

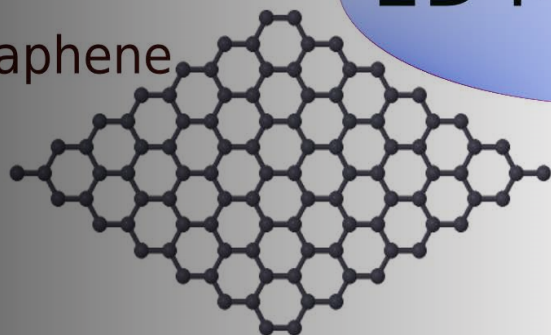


Black Phosphorus

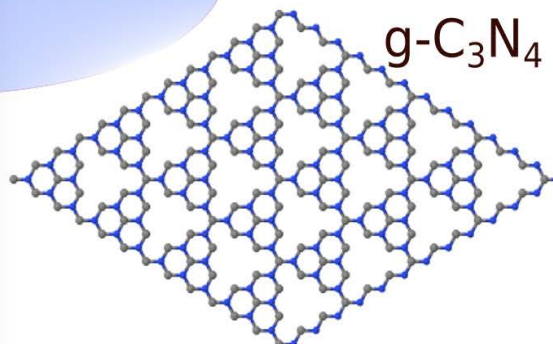


2D Materials

Graphene



g-C₃N₄



TWO-DIMENSIONAL NETWORKS IN MATERIALS SCIENCE, Hande Toffoli, MIDDLE EAST TECHNICAL UNIVERSITY, ANKARA

Martedì 29 ottobre 2019, ore 18:00
Sala Cappella, ex Ospedale Militare
Via Fabio Severo 40, Trieste

In 2004, Andre Geim and Konstantin Novoselov successfully produced a curious material in isolation [1]. As simple as just a hexagonal network of tightly bound carbon atoms, this material, graphene, happens to be atomically thin yet incredibly strong, lightweight, a great conductor of heat and electricity, and almost entirely transparent. Due to these extraordinary properties, the possible applications of graphene in

scaled-down electronics, alternative energy, smart clothes, ballistics, filtration systems, computers and many more fields are unbounded. In fact, such great is its promise that Geim and Novoselov's isolation technique, known commonly as the "Scotch-tape" method, since it consists of pushing a piece of sticky tape onto a graphite sample and transferring it to a substrate, won them the Nobel Prize in Physics in 2010.