



Symposium V : Research on 2D material

Scope of the Symposium

The last few years, material scientists have focused a lot of their effort in studying the properties of bi- dimensional materials (2D material). Indeed, since the first experimental studies on graphene (2004), it has been shown that lots of other materials can be confined into two dimensions: transition metal dichalcogenides, Van der Waals heterostructures or more recently hybrid organic-inorganic perovskites. The research in this area is atypically intense resulting in more than 32.000 papers published since 2010. (web of science, keyword: 2D material), and almost half of those works were released since 2015 till now. In Brazil, this field is also extremely hot and we would like to suggest the creation of a symposium in the area of two-dimensional materials. There are many universities and active networks of collaborative researchers working in Brazil. For instance, the proponents of the symposium are members of a 2D materials network created in 2018 which is fully supported by the Minas Gerais state funding agency (FAPEMIG). Only this thematical network is composed of 6 federal universities and 36 professors. Also, there is another network called INCT of Nanocarbon that also supports researcher groups all over the country which work in the field of graphene, carbon nanotubes and 2D material. Very likely, a symposium in the area of 2D materials will be attractive for a large number of people in Brazil. Due to innumerable applications of such materials we believe that this symposium should cover a wide range of theoretical and applied sciences in physics, chemistry and biological applications. Thus we expect that this symposium should bring to the conference some new conferees that are not yet attending the SBPMat in 2019.

Abstracts will be solicited in (but not limited to) the following areas

- *Synthesis of 2D material*
- *Electronic properties and applications*
- *Optical properties*
- *Biological applications*
- *Chemistry on 2D materials*
- *2D material nano-composites*

Tentative list of invited speakers (To be confirmed)

Michael Strano (*Massachusetts Institute of Technology (MIT)*) **Mauricio Terrones** (*Penn State University*) **Yenny Hernandez** (*Unianandes*) **Cinzia Casiraghi** (*University of Manchester*) .

Symposium Organizers

Benjamin Fragneaud (*UFJF*) **Leonardo Cristiano Campos** (*UFMG*) **Rodrigo Gribel Lacerda** (*UFMG*) **Jenaina Ribeiro Soares** (*UFLA*) .

<https://sbpmat.org.br/18encontro>

XVIII Brazil MRS Meeting