

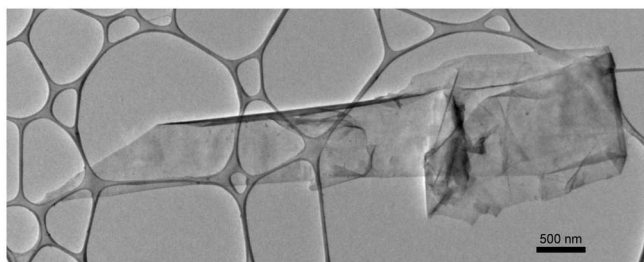
THERMODYNAMICALLY STABLE GRAPHENE SOLUTIONS

A. Pénicaud^{a*}

^aUniversité de Bordeaux, Centre de Recherche Paul-Pascal, CNRS,
115 av. Schweitzer, 33600 Pessac, France

*Corresponding author: *penicaud@crpp-bordeaux.cnrs.fr*

Graphite is insoluble in all media but may be dispersed with surfactants and/or sonication to obtain metastable suspensions. However, some graphite intercalation compounds (GICs) have been shown to be spontaneously soluble in polar organic solvents without the need for any kind of additional energy, such as sonication or high shear mixing.[1-3] Flakes of several mm² can be deposited from these solutions.



References

- [1] Solutions of graphene, C. Vallés and A. Pénicaud, patent, WO 2009/087287; FR 07/05803 august 9, 2007.
- [2] C. Vallés *et al.*, J. Am. Chem. Soc., 130 (2008) 1580215804.
- [3] Graphene solutions, A. Catheline, C. Vallés, C. Drummond, L. Ortolani, V. Morandi, M. Marcaccio, M. Iurlo, F. Paolucci, A. Pénicaud, Chem. Commun. 2010, DOI:10.1039/C1CC11100K.