Artur Dobrowolski
Jakub Jagiełło, Karolina Piętak, Tymoteusz Ciuk
Lukasiewicz Research Network-Institute of Microelectronics and Photonics, Al. Lotnikow 32/46, 02-668 Warsaw, Poland

artur.dobrowolski@imif.lukasiewicz.gov.pl

Method for layer-resolved Raman mapping of transferred graphene

The technique for layer-resolved Raman mapping is an extension of the previously introduced method of determining the number of graphene layers [1]. It's based on the substrate's Raman-active modes intensity attenuation, caused by graphene absorption. Combining this method with the standard Raman analysis [1,2] allows the standardization of the material regardless of the number of graphene layers. This method is presented in the example of transferred graphene, decomposed into the areas of single and multiple graphene layers and characterized separately by standard Raman analysis.

References

[1] A. Dobrowolski, J. Jagiello, D. Czolak, T. Ciuk, Physica E: Low-dimensional Systems and Nanostructures, 134 (2021), 114853
[2] K. Pietak, J, Jagiello, A. Dobrowolski, R. Budzich, A. Wysmołek, T. Ciuk, Applied Physics Letters, 120 (2022), 063105

Figures

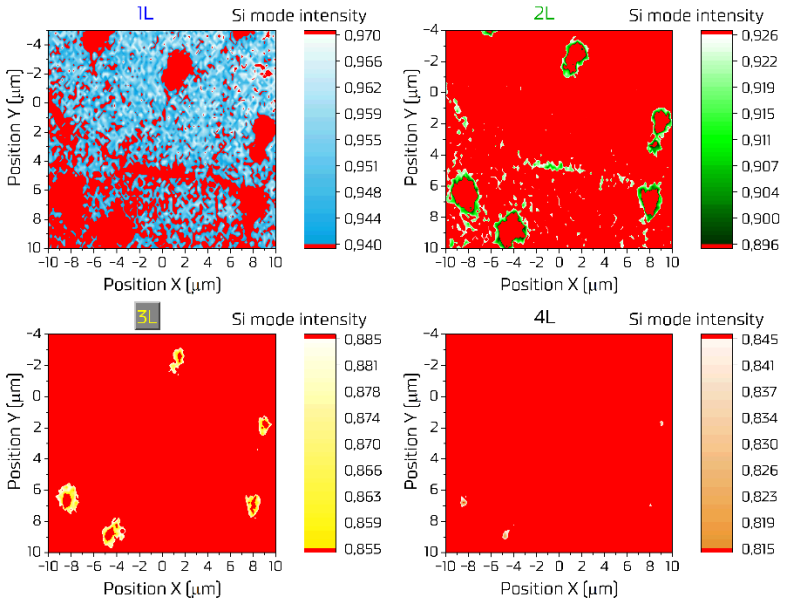

Figure 1: Layer-resolved Raman mapping of transferred graphene