

FLEXURAL AND TORSIONAL MODES OF ATOMIC FORCE MICROSCOPE CANTILEVERS

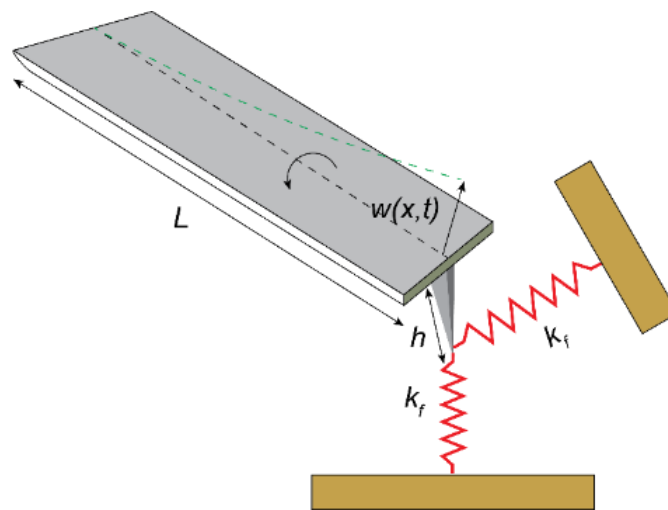
Le Tri Dat

Laboratory of Applied Physics, AIMaS, Ton Duc Thang University, HCMC, Vietnam

Faculty of Applied Sciences, Ton Duc Thang University, HCMC, Vietnam.

Abstract

The atomic force microscope (AFM) cantilever has been used for imaging the surface topography of the sample. In a previous study, authors carried out the computation of the sensitivity of flexural and torsional vibration modes of AFM cantilever [1]. In this talk, we will review and discuss frequency and mode shape of both flexural and torsional vibration modes of AFM cantilevers. This can help to imagine steps how to gain frequency and mode shape, and, besides, it can extend more complex structures of AFM cantilever such as T shape, and cantilever with overhang part [2].



[1] Turner, J.A. and Wiehn, J.S., Nanotechnology (2001).

[2] LE TRI, D., LAN, V.U. and VY, N.D., Communications in Physics (2020).