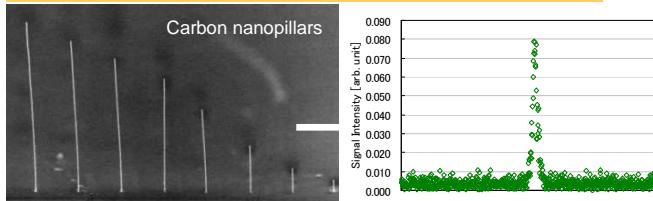


# Dynamic properties of micro/nanomechanical structures for innovative mechanical devices

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Fundamental investigations into fabrication and measurement technologies and their applications to devices are conducted to evaluate the dynamic properties of micro/nanomechanical resonators.

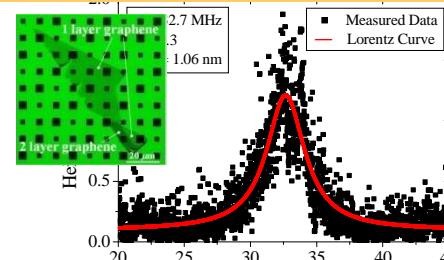
## Vibration measurement by E-beam



H. Ashiba et al, Jpn. J. Appl. Phys., **48** (2009) 06FG08

S. Warisawa  
R. Kometani

## Graphene resonator



T. Hatakeyama et al, 54<sup>th</sup> EIPBN, June 3 (2010)

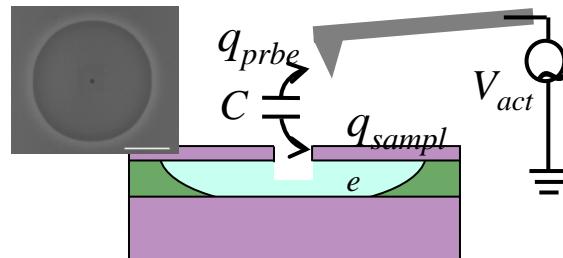
S. Maruyama

I. Yamada

J. Shiomi

J.J. Delauney

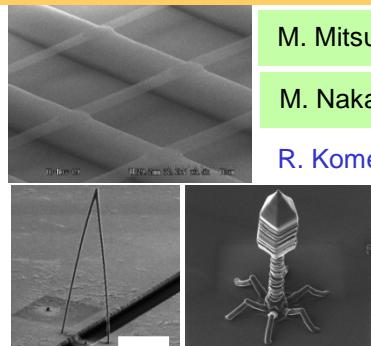
## Vibration measurement by AFM probe



K. Tamaru, et al., Jpn. J. Appl. Phys. **48** (2009) 06FG06.

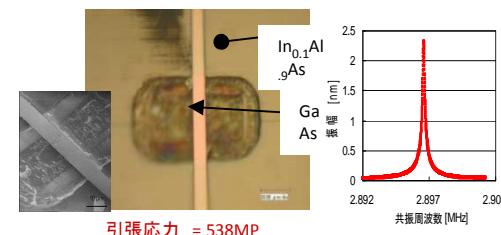
S. Warisawa      R. Kometani

## 3D nanostructure fabrication technology



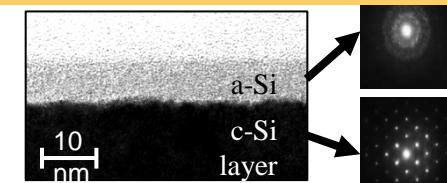
M. Mitsuishi  
M. Nakao  
R. Kometani

## Dynamic property control by strain engineering



H. Yamaguchi et al, App. Phys. Lett. **92**, 251913 (2008)

## Surface & structure affection on resonant characteristics



H. Shimizu et al, J. Appl. Phys. **49** (2010) 06GN13