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Selected Publications:

Han, Q., Yao, X. H., and Li, L. F., 2006, “Theoretical and Numerical Study of Torsional Buckling of Multiwall Carbon Nanotubes,” *Mech. Adv. Mater. Structures*, 13, pp. 329–337.

Xiaohu Yao and Qiang Han, “Buckling Analysis of Multiwalled Carbon Nanotubes Under Torsional Load Coupling With Temperature Change”, *ASME J. Eng. Mater. Technol.* Vol. 128, No. 3, July 2006, pp. 419 – 427

Xin, H., Han, Q., and Yao, X.-H., Buckling and axially compressive properties of perfect and defective single-walled carbon nanotubes. DOI: 10.1016/j.carbon.2007.08.037

Xiaohu Yao and Qiang Han, “Postbuckling prediction of double-walled carbon nanotubes under axial compression”, *European Journal of Mechanics - A/Solids*, Vol. 26, No. 1, January-February 2007, pp. 20-32

Xiaohu Y., Qiang H.: Investigation of axially compressed buckling of a multi-walled carbon nanotube under temperature field. *Compos. Sci. Technol.* 67, 125–134 (2007)

Yao X., Han Q.: The thermal effect on axially compressed buckling of a double-walled carbon nanotube. *Euro. J. Mech. A/Solids* 26, 298–312 (2007)

Xin, H.; Han, Q.; Yao, X.H. Buckling and axially compressive properties of perfect and defective single-walled carbon nanotubes. *Carbon* 2007, 45, 2486–2495.

Yao, X. and Han, Q., “Torsional buckling and postbuckling equilibrium path of double-walled carbon nanotubes”, *Composites Science and Technology*, Vol. 68, (2008), 113-120

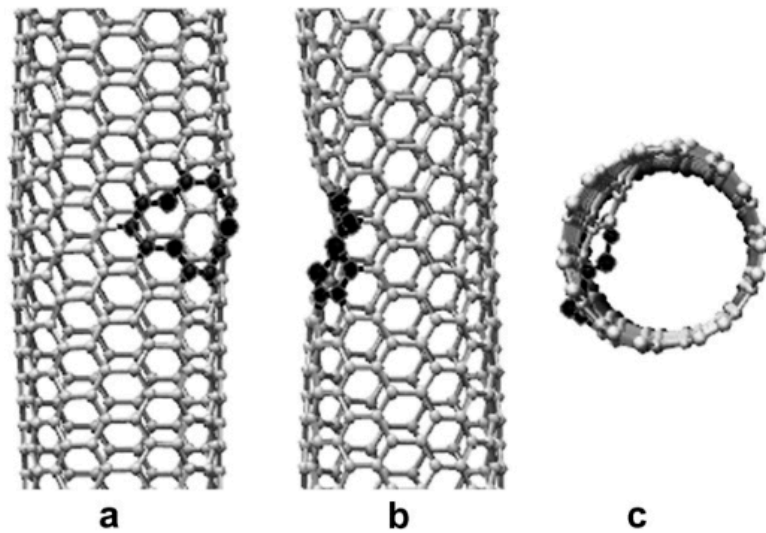


Fig. 5. Configurations of (7,7) SWCNT with single vacancy defect when local buckling occurs: (a) front view, (b) side view and (c) top view.

From: Hao Xin, Qiang Han, Xiaohu Yao, “Buckling of defective single-walled and double-walled carbon nanotubes under axial compression by molecular dynamics simulation”, *Compos. Sci. Technol.*, 68 (2008), pp. 1809-1814

Yao X., Han Q., Xin H.: Bending buckling behaviors of single- and multi-walled carbon nanotubes. *Comput. Mater. Sci.* 43, 579–590 (2008)

Hao Xin, Qiang Han, Xiaohu Yao, “Buckling of defective single-walled and double-walled carbon nanotubes under axial compression by molecular dynamics simulation”, *Compos. Sci. Technol.*, 68 (2008), pp. 1809-1814

Peng Yu, Xiaohu Yao, Qiang Han, Shuguang Zang and Yabei Gu, “A visco-elastoplastic constitutive model for large deformation response of polycarbonate over a wide range of strain rates and temperatures”, *Polymer*, Vol. 55, pp 6577-6593, 2014

Peng Yu, Xiaohu Yao and Qiang Han, “The dynamic response and failure of polycarbonate plate by soft body impact”, *Polymer Engineering and Science*, 2016

Zhicheng Ou, Xiaohu Yao, Xiaoqing Zhang and Xuejun Fan, “Dynamic stability of flexible electronic structures under step loads”, *European Journal of Mechanics –A/Solids*, Vol. 58, pp 247-255, July-August 2016

Yanbin He, Xiaoqing Zhang, Shuchang Long, Xiaohu Yao and Lingfeng Hi, ”Dynamic mechanical behavior of foam-core composite sandwich structures subjected to low-velocity impact”, *Archive of Applied Mechanics*, Vol. 86, No. 9, pp 1605-1619, September 2016

Xiang Ou, Xiaoqing Zhang, Run Zhang, Xiaohu Yao and Qiang Han, “Weak form quadrature element analysis on nonlinear bifurcation and post-buckling of cylindrical composite laminates”, *Composite Structures*, Vol. 188, pp 266-277, March 2018

Xiang Ou, Xiaohu Yao, Run Zhang, Xiaoqing Zhang and Qiang Han, “Nonlinear dynamic response analysis of cylindrical composite stiffened laminates based on the weak form quadrature element method”, *Composite Structures*, Vol. 203, pp 446-457, 1 November 2018

Wu-Rong Jian, Xiaohu Yao, Yugang Sun, Zhuocheng Xie and Xiaoqing Zhang, “Size-dependent vibration analysis of carbon nanotubes”, *Journal of Materials Research*, January 2019